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Wadim Strielkowski
Oksana Chigisheva *Editors*

Leadership for the Future Sustainable Development of Business and Education

2017 Prague Institute for Qualification
Enhancement (PRIZK) and International
Research Centre (IRC) "Scientific
Cooperation" International Conference

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Editors

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Preface

This volume of Proceedings entitled *Leadership for the Future Sustainable Development of Business and Education* constitutes an edited volume of original peer-reviewed contributions presented at the 2017 Prague Institute for Qualification Enhancement (PRIZK) and International Research Centre “Scientific Cooperation” International Conference.

The 1st International Conference “Social, economic, and academic leadership for the future sustainable development of business and education” was held in Prague, Czech Republic, on September 12–15, 2017. The conference was a unique event co-organized by the academic and research institutions from the Czech Republic and Russian Federation, hence combining different approaches to such important and crucial issues as leadership, sustainable development, business and economics, social practice, international academic policy, and cross-cultural management.

The event managed to bring together researchers and stakeholders from various fields of business, economics, education, social sciences, psychology and behavioural sciences, pedagogy, and linguistics, as well as policy-makers responsible for the creation and maintenance of the sets of rules for the future sustainable development of business and education.

The conference offered a wide range of keynote speeches, oral and poster presentations, as well as roundtables and workshops. Its main points of discussions and debates centred around the six main parts (or conference tracks) that also constituted the main pillars of the conference:

- Part I: Social, cultural, and psychological aspects of leadership
- Part II: Leadership as a subject of social practice
- Part III: Leadership in business and economics
- Part IV: Leadership in the international academic policy
- Part V: Leadership in educational practice
- Part VI: Leadership for the sustainable development of business and education: paradox or necessity?

Each of these parts is represented by several contributions in the Proceedings volume. The main focus of the conference was leadership in its three important realms: social, economic, and academic. One would probably agree that leadership is becoming a key element for the future sustainable development of business and education in the quickly globalizing world we live in. This volume of Proceedings brings together the results of the debates, roundtables, and expert discussion in which the contributors examine the perspectives of leadership from the point of view of social sciences, business and economics, strategic and cross-cultural management, as well as educational and public policies. With a particular focus on the business models and higher education schemes in Russia, European Union, and other countries, this Proceedings volume examines such issues as social and educational practices, academic policies, or business environment from the point of view of academic experts, researchers, and entrepreneurs. This book includes contributions and expert opinions from both theory and practice which makes it a unique synergy of ideas and a toolbox for establishing strong leadership in business and education.

Our authors come from academic institutions, public research institutes, business schools, and research centres forming a wide geography of contributors from a wide array of countries including China, Colombia, Czech Republic, Lithuania, Poland, Romania, Russian Federation, Slovakia, and Ukraine.

We trust that you will find this Proceedings volume interesting, enlightening, and full of useful ideas and inspiration. We also hope that it will bring food for thought and will help you to generate ideas on how social, economic, and academic leadership might be used for or contribute to the sustainable development of business and education in the future.

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Part I
Social, Cultural and Psychological Aspects
of Leadership

Social, Economic, and Academic Leadership for Sustainable Development of Business and Education in the Future: An Introduction



Wadim Strielkowski and Oksana Chigisheva

Abstract Leadership (social, economic, and academic) is becoming a key element for the future sustainable development of business and education in the quickly globalizing world. This contribution contemplates on the origins and the sources of leadership and the essence of leadership both as the concept and the academic definition. We analyze the results of the debates, roundtables, and expert discussion in which the contributors examine the perspectives of leadership from the point of view of social sciences, business and economics, strategic and cross-cultural management, as well as educational and public policies. With a particular focus on the business and economic models, as well as economic theory and social sciences, we examine various aspects and ideas of leadership from the point of view of academic experts, researchers, and entrepreneurs. Overall, it becomes clear that leadership is a very complex concept and phenomenon that might be viewed and should be studied in the multidimensional and multi-angle perspective.

1 Introduction

If the question who are some of the greatest business and education leaders of the twentieth and twenty-first century was posed today, it would elicit interesting, debatable, and highly controversial answers (Eisner 2016). However, names such as Steve Jobs, Sergey Brin, Larry Page, Bill Gates, Michael Dell, and Elon Musk, among others, would prominently feature on most lists (Daft 2014). These answers give rise to the question what makes a leader, and what is the measure of successful

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leadership? However, in addition to these individuals, among individuals, with a candidature for greatest business and economics leaders of the twentieth and twenty-first centuries, there are scholars, chief executive officers, and holders of executive leadership or management positions in businesses, such as Mary T. Barra of General Motors and Raymond Albert Kroc of McDonalds, among others. Notable, among the mentioned individuals above, most have founded or co-founded businesses or held executive management and leadership positions and gone on to steer the businesses into market leadership positions in their respective industries or categories.

In the recent past, scholars, professionals, and other stakeholders have strived to establish a clear distinction and shared similarities between managers and leaders in the business and economics field. Very often, discussions of who are the leaders of the financial world and how to distinguish them emerge (Brickley et al. 1997). These distinctions or similarities have been based on the duties, roles, responsibilities, and personal tenets of leaders' vis-à-vis managers (Northouse 2015).

This short paper assesses the tenets or characteristics, duties, functions, and working methods or leadership styles of individuals who have come to be ranked as some of the most successful or greatest business leaders of the twentieth and twenty-first centuries and, based on that, draws conclusions about the nature of leadership in business and economics. Furthermore, the paper incorporates experiences and practices of individuals categorized as successful business leaders to evaluate the validity and applicability of the theoretical concepts that form the basis for leadership practices.

2 Leadership Characteristics: A Literature Review

Providing a simple definition of leaders, Palmisano (2008) defines a leader as a person who makes things happen but goes on to point out that even tyrants, in the political leadership context, make things happen, and in so doing negates the definition of a leader just provided. Furthermore, the author observes that in most leadership publications, there is a strong focus on the successes of leaders, but no caution is provided to the fact that success alone does not equal successful leadership. Moreover, leadership is often linked to the organizational performance, and according to some accounts (Jing and Avery 2008), it might become a crucial element in fostering this performance. Some evidence suggest that good leadership styles can enhance productivity and increase job satisfaction of the employees (Voon et al. 2011).

On the other hand, Northouse (2015) observed that the word leadership could have different meanings to different individuals in different contexts but defines leadership as a process in which a person, who possesses specific tenets, influences other individuals in a group to achieve common or shared goals. The superiority of the process definition of leadership over the tenets or behavioral definition of

leadership as proposed by Northouse (2015) lies in the concept that leadership can be learned or taught, arguments that are echoed by Palmisano (2008). The behavioral or tenet approaches of defining leadership assume leadership to be an inborn ability or characteristics, which cannot be taught.

This is, of course, not the only side of leadership: one has to understand that leadership can be negative, bad, or unethical. One of the examples is sports where match fixing has been known since Ancient Greece. For example, Crawford et al. (2017) provide an example of unethical leaders and leadership in the Australian Football League. Such examples are notorious and unfortunately ubiquitous.

Moral leadership and business ethics are also discussed quite often in the research literature (Gini 1997). It becomes apparent that without moral leadership, business relations might become a tough jungle where the individuals are left with no moral support, ethical behavior, and other widely accepted standards.

Drawing from the definitions of leadership as provided above, it is evident that leaders perform a wide range of functions or duties and possess various different tenets and abilities. According to Lussier and Achua (2015), leaders formulate or identify a vision, participate in the recruitment of individuals forming a team, provide guidance, empower, and motivate these individuals to work toward the achievement of a vision, as delineated in the shared goals and objectives. In agreement, Ricketts and Ricketts (2010) observed that leaders provide an enabling environment, motivate employees, and empower them to achieve shared goals and objectives, which facilitate the achievement of the vision of a group or the organization. In addition, as Higgs and Dulewicz (2016) observed, leadership is about bringing the best in people by leveraging on strengths and improving on weaknesses, integrating and aligning operational goals to the strategic vision and goals, and focusing on the results, rather than the processes of achieving the results. To achieve the goals and objectives, or the vision, successful business leaders possess different tenets, skills, and abilities that propel them to greatness.

According to Ricketts and Ricketts (2010), successful leaders are stoic, persistent, and resilient; they have an ability to identify risks and are prepared to take risks, accept failure, and learn from their mistakes to achieve success. In addition, according to Lussier and Achua (2015), successful leaders have good interpersonal skills, the ability to identify and work with talented individuals, the ability to delegate tasks, and impeccable communication skills, which enable them to work well with other individuals to achieve shared goals and objectives. Further, the authors note that successful leaders do not find satisfaction in the status quo and work toward developing new and innovative ways of doing things, to achieve higher success. Other important tenets of a successful leader include self-awareness, decisiveness, fairness, integrity, ethics, knowledgeability, creativity, imagination, endurance, charisma, strategic, commercial, and visionary (Northouse 2015).

3 Discussion and Implications for Business Leaders

As provided in the definition of leaders and leadership, successful business leaders formulate a vision, empower, and communicate the vision to teams or followers to ensure the achievement of shared goals and objectives (Daft 2014). Business leaders, such as the late Steve Jobs, the co-founder and long-serving chief executive officer of Apple, formulated visions for their companies and were able to lead the companies to the achievement of the organizational vision, goals, and objectives. Steve Jobs envisioned Apple as one of the leading technology companies, and within a span of less than 5 years, since the launch of the iPhone in 2007, the company was able to overtake other established brands in the market such as Blackberry, Nokia, and Motorola (Berger and Brem 2016). Similarly, Elon Musk, one of the co-founders of PayPal, Inc., was able to identify the need for an online payment platform, informed by the growth of the Internet or online commerce, and he developed and grew PayPal to one of the leading online payment platforms globally to date (Allio 2015).

However, it is important to note, as observed by Ricketts and Ricketts (2010), which successful business leaders are stoic, persistent, and resilient; the journeys of these and other successful leaders have not always been successful, because they have experienced failures but have been able to rebound and improve on their learning. For example, despite the various failures experienced by Henry Ford, in the development of the Ford automobile, he was able to rebound and continuously work toward his vision of a mass-produced, mass-marketed automobile (Daft 2014). In a near similar case, Musk, the co-founder of PayPal, and now the CEO of Tesla Motors, a producer of electric vehicles, has consistently, despite many challenges, continued to pursue the vision of a profitably produced and marketed electric vehicle for the mass market, and Tesla Motors is currently in the process of producing a mass-market electric automobile (Allio 2015). Evidently, from these examples of the mentioned leaders, the leaders are informed by trends in the market, customer tastes and preferences, and other factors, to develop products goods or services that address the identified gap in the market.

Lussier and Achua (2015) argued that successful leaders formulate a vision, recruit individuals, and communicate and provide guidance toward the achievement of the vision. Further Ricketts and Ricketts (2010) opined that leaders provide an enabling environment for the individuals, the teams, and the organizations to achieve the organizational goals and objectives. Allio (2015) observed one of the main reasons as to why most co-founders of companies, such as Steve Jobs and Larry Page, for Apple, Inc., and Google, Inc., respectively, went on to become successful leaders in these businesses. These leaders were successful because they had the vision and were able to articulate and get the buy-in of not only employees but also the investors. Moreover, as observed by Berger and Brem (2016), the leaders of technological companies, such as Google and Apple, were able to identify talent; Steve Jobs conducted more than 5000 interviews in his lifetime, through which he was able to identify talented individuals, while Google Inc. has been consistently

ranked as one of the most favorable places to work in Allio (2015). As evidenced here, the leaders are able to delegate tasks, power, and authority to perform the tasks, which has been instrumental in the success achieved by not only these leaders but also the firms they lead.

4 Conclusions and Discussions

Overall, it appears that successful leadership in business and economics is hinged on a plethora of factors. The issue is very complex in nature due to the controversy that the term “leaders” and “leadership” might involve for some people: while some see certain people as leaders and are ready to be guided and led by them, the others tend to see the same very people as tyrants and reject any attempts to be led and guided.

One thing remains clear within this context: leaders are the people who should formulate a vision, communicate the vision, empower, and motivate their teams to achieve the common goals and objectives, which lead to the actualization of the vision. In order to achieve this, leaders need to have different characteristics. The tenets of a leader, including stoicism, persistence, resilience, self-awareness, integrity, and a wide range of soft skills or abilities to interact with individuals, form the basis for the development of a character of a successful leader. With these tenets, a leader is able to perform his or her duties effectively and efficiently, leading to the development of individuals and achievement of personal, group, and organizational goals and objectives.

One can find leaders in all spheres of public and economic life: in business and economics, technology, innovative science, sports, politics, and many other domains. What is clear is that all these people have something in common, a charisma, a state of mind, an ability to motivate and to lead the others. It becomes clear that emotional intelligence plays a crucial role in all these, and it might be one of the main unifying elements that make up a successful leader.

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Organizational Leadership as a Problem: Current State and Solutions (Socio-legal Aspect)



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Abstract The leader is a key figure whose aspects of activity are studied from various standpoints: the social one, also covering the legal aspect, the economic one, the cultural one, and others. The versatility of the company leader's status studying points at the relation and mutual influence of each of the aspects. This research analyzes the legal aspect of the company leader's status that has a tremendous influence first of all on the company's economic activity. The objective of the research is to give ground for a clear system of leadership in organizations from the legal standpoints. Both Russian and international laws and regulations and special literature have been analyzed, which has allowed making certain conclusions about the organization leadership problems existing and ways for solving them. First, this is recognizing the fact of two leaders available in an organization who have different rights and opposite interests: the head of the organization and the head of the primary trade-union organization. However, the organization has to have only one leader, both actually and under the law – its manager. Second, the minor quantity of trade-union leaders gives evidence about a low level of trust for them, poorly developed legislation about liability for violation of rights, and a certain extent of intervention from the state. Third, in order to implement the principle of independence for trade unions and their leaders, the system of organization and activity of the trade unions has to be changed, with the primary trade union to be brought beyond one organization and transformed into a branch or professional trade union at the municipality level. This will have a positive influence on economic activity of the organization, the head of which will exercise his coercive powers of a leader in reality.

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1 Introduction

The economic pressures caused by change in the global and branch markets and recently – by the economic crisis – have not spared the labor relations too (Monaco and Pastorelli 2013). Alongside with all other things, the efficiency and economic success of activity of most organizations depend on the relations between the employer and the employees. Scientists have already paid attention to the influence of the economy on labor relations and to the dependence of economic development on the efficiency of labor legislation (*Workers and the Global Informal Economy: Interdisciplinary Perspectives* 2016), as it is the labor force that “drives” the economy.

Within this research, for the purposes of narrative convenience, by the term organization, both an organization as a legal entity and as an individual (e.g., an entrepreneur) will be meant.

Each of parties in the organization has its own representative for solving the current and global questions. The employer’s representative is the head of the organization who by his status is meant to defend the employer’s interests. The representative of employees is traditionally a trade union. Trade unions are not only one of the numerous but also quite an influential social entity. For instance, within the responsibility domain of the International Labour Organization (ILO) Moscow office, there are over 50 million members of trade unions (Trade unions and employers’ organizations 2017). If an organization has no trade union, then the function of representation is performed by an authority elected by the workers’ collective and having the rights that are similar to those of trade unions.

So, if leadership in the organization is viewed in this aspect, then two leaders are obtained a priori having different rights and frequently opposite interests: the organization head (let him be called the formal leader of the organization) and the head of the primary trade-union organization (hereinafter – the head of the trade union or the trade-union leader; he can be conventionally named the organization’s informal leader).

According to the current Russian legislation, most legal questions in the organization directly influencing its economic activity are solved at the level of representatives of the employer and the employees. This is why the problem of relations of two leaders in the organization having directly opposite interests and goals appears relevant.

The head of the organization is a priori determined by the labor legislation as a leader. In particular, according to the labor law theory, the head has an owner’s power: the normative one (he can adopt in-house bylaws), the managerial one (the capacity of issuing the current orders), and the disciplinary one (that of holding the workers liable) (Tal 2006).

The organization head having an owner’s power predetermines his leadership over all workers, the president of the trade unions included, both in the juridical and in the actual respect. This means that the independence of the trade-union leader is leveled out by the legislator, which is certainly to the advantage of leadership of the organization head.

A trade-union leader who fulfills his functions of representation and protection of the workers' labor rights efficiently frequently faces a negative attitude on the part of the formal leader – the head of the organization – exactly on the motives of his activity. In practice, there are numerous violations of rights committed against primary trade-union organizations, which is confirmed by the decisions of the competent authorities of the RF and is reflected in the annual reports of the ILO agencies (Freedom of association in Russia: practice, problems of implementation and protection of rights 2009).

Although the activity of the two leaders is governed by laws and regulations, the results of their relations largely depend on the leaders' ability to find a consensus, with the latter not always being achieved.

According to the authors, a reason why the leaders' relations may get aggravated is the imperfection of legislation over the question of structural design of trade unions. In Russia, the current labor legislation actually compels the leaders in the organization to unequal positions. The organization head being the formal leader possesses the power and has essential leverage on all workers, the trade-union leader included, who does not have similar authorities at all. As a result, not wishing to fulfill the workers' requirements brought by the trade-union leader to his notice, the organization head can exert pressure on the trade-union leader.

Independence for the leader of the trade union can only be ensured by changing the structural design of the primary trade unions, with the trade-union leader to be placed beyond the jurisdiction of the head of his employer organization.

2 Literature Review

In Russia, the legal status of the organization head is conditioned by the different legal nature, which determines the duality of his legal position. On the one hand, his being the head performing the functions of a sole executive authority, his activity is governed by the RF Labor Code, but due to his being the owner of the property, it is regulated by the RF Civil Code. As a result, the activity of the formal leader (the head of the organization) is governed by different branches of the law, which creates certain difficulties in law enforcement.

At the same time, Russia has a quite clear regulation of activity of the trade union as a social organization and of that of trade-union leaders. In Russia, the activity of trade unions is governed not only by the national legislation but also by the international standards. Among the intranational acts, the Labor Code of the RF (2002) (hereinafter – the RF LC) should be pointed out that contains quite a lot of norms on trade unions and the legal status of their leaders, as well as the federal law “On trade unions, their rights and guarantees of activity” (1996). As for the international acts, the Conventions and Recommendations of the ILO ratified by Russia should be noted, e.g., the ILO “Convention Concerning Protection and Facilities to Be Afforded to Workers' Representatives in the Undertaking” No. 135 (1971), the ILO “Recommendation Concerning Protection and Facilities to Be Afforded to Workers' Representatives in the Undertaking” No. 143 (1971), as well as the

European Social Charter (2010) providing for the worker representatives' right for protection. Alongside with the above laws and regulations directly dealing with governing the activity of trade unions, there are ones containing individual provisions on the activity of trade unions and their leaders. One of these laws is, for example, the RF Law of April 19, 1991, "On employment of the population in the Russian Federation" (ratified in 1996, amended in 2017) which contains a broader list of compulsory reasons and conditions for notifying the trade unions in case any dismissal is expected (see Federal Law of 12.01 (1996a), and Federal Law of 12.01 (1996b)).

In the special Russian and foreign literature, there are studies dealing with the characteristics of the legal status of the organization head (Goleva 2014; Zaytseva 2007) and of the trade-union one (Snighireva 2013; *Outline of Polish Labour Law System* 2016; *New Forms of Employment in Europe* 2016). However, the question about leadership in the organization as a legal problem of relations between the head of the organization and the trade-union leader and the effect of the content of their relations on the entire organization's economic activity has not been posed nor have the legal consequences of these relations for the efficient protection of labor rights and interests been forecast. For the first time, this problem is approached by the authors of this paper.

3 Research Methods

The authors have analyzed the laws and regulations governing the activity of both formal and informal leaders in the organization: its head and the trade-union leader, as well as the international laws and regulations. The research is aimed at drawing the attention to these problems and creating a balance of the legal position of the said leaders in order to ensure their independence and the possibility of equal protection of their interests.

In order to achieve the said objective, the formal legal method and the legal analysis method were used. The data obtained became the basis for conclusions that can be used for introducing amendments or additions into the labor legislation regulating the relations of leaders in the organization: of the organization head and the head of the primary trade union of the organization. The legal distinctions between their statuses are due to not only the economic reasons but also to justice and the necessity of real protection of the labor rights.

4 Results and Discussion

As the main conclusions according to the results of the research, the following are presented.

First of all, under the current Russian law, the organization leaders a priori have to be the head of the organization and that of the trade union. This means recognizing

the fact of presence of two leaders in one organization who have different rights and opposite interests. At the same time, it is to be emphasized that the trade-union leader is also an employee who is organizationally subordinate to the head of the organization. Certainly, the trade-union leader may also perform his activity while being freed from the labor function, but such situations are almost never observed currently (Article 374 of the RF LC).

The influence of the leader (head of the organization) and his having coercive powers place the trade-union leader as the organization employee in a dependent position as for the other leader (head of the organization). According to the labor law standards, the informal leader has to be subordinated to the formal one, which objectively determines the informal leader into an unequal position as compared to the formal leader and questions not only the entire activity of the informal leader in labor rights and interests protection but also the economic constituent of this activity, with the trade-union blocking of the organization head's many economic decisions weakened.

However, it is not always the case when there are two leaders in the organization simultaneously, because trade unions do not act at all organizations and in the organizations where they function headed by an informal leader, the organization head in fact bars the simultaneous full-fledged existence of two leaders. And this is correct: clearly, an organization has to have only one leader – its head – both in fact and under the law.

In the case “Vellutini and Michel v. France” (2011), the question pertaining on the freedom of expression and trade-union leaders having such freedom was considered. The court recognized the acceptability of a broad interpretation of freedom. In particular, this concerned the leader of the trade union's opportunity to voice his opinion about the employers. The court believes that the association between the information having been distributed with the activity of the trade union and the objectives of that activity is important. The court also considered targeting of criticism at the organization head to be important.

Although the standpoints of the European Court on the questions considered are deemed compulsory and shall be taken into account, the Russian courts (except the RF Constitutional Court) extremely rarely turn to the ECHR practice. This fact was noted by the Constitutional Court which specified that failure to use the court precedent as a source of rights was justified by the national legal tradition. The lack of the official translation of the ECHR decisions into Russian is also a difficulty for courts (Report of the Constitutional Court of the Russian Federation for the XVth Congress of the Conference of European Constitutional Courts 2006).

With regard to this, the question arises: which of the heads shall be considered the leader, if the new laws of the RF Civil Code (para. 3 item 1 Art. 53) deem it possible for several persons – directors – to act on behalf of the legal entity jointly or independently from each other (such a possibility has to be stipulated in the company's articles of association)? In some cases, the approval of two persons is required for a decision to be made, in others – each director shall represent the legal entity within his competence. Upon requirement of the legal entity, its founders (members), the directors shall reimburse any losses incurred by the organization due

to their fault (item 8 Art. 1 of federal law of May 5, 2014, No. 99-FL “On amendments to chapter 4 of part 1 of the Civil code of the Russian Federation and on recognizing individual provisions of legislative acts of the Russian Federation as having become ineffective”, Art. 53.1 of the RF CC). Such plurality of leaders in the organization has largely been borrowed from the foreign practice. Anyway, how has the problem of leadership in the organization to be solved? Does it appear that there must be several heads – leaders – at the same time? Rather, there must not – and it is still that director who is the head of the organization as a whole that has to be considered as the single formal leader.

Second, the main reasons of absence of trade unions in the organizations are the mistrust for them on the part of the very employees, poor legislation on the liability for violation of trade unions’ rights, and a certain extent of the state intervention.

The lack of a mechanism for protecting the trade-union leaders’ violated labor rights enables the organization head to put pressure on a “troublesome” worker, on the leader of the trade union, thus weakening the very trade union and avoiding the necessity to approve any agreement conditions that are unprofitable for the head. The trade-union leader’s organizational subordination due to his being an employee clearly shows his dependence on the organization head, as the status of a leader of the trade union does not deprive the head of the organization of a right to dismiss him. Although some compulsory procedures have to be observed, e.g., an agreement has to be obtained from a higher-ranking elected trade-union authority, this is merely a matter of form in most cases.

The leader of the trade union who is freed from the main work to perform the trade-union activity has another position. He gets out of the direct dependence on the organization head due to his exercising no labor function and not being his employee. In this case, it can be spoken about expanded independence limits and narrower opportunities for putting the pressure on the trade-union leader.

The activity of trade unions is influenced by the organization head due to his position of a leader, but the state can also intervene into the activity of trade unions in some cases affecting the elections of trade-union leaders being opposed to not only the manager but also the state authorities.

Experts of the ILO point out that the state intervention into the activity of trade unions can take various forms, in particular, by intervening into the free elections of the trade-union leaders.

The individual problems in question of the RF national legislation and the formed law enforcement practice conformity were worded at the international conference “Improvement and development of the national legislation based on the international labor standards” conducted by the Ministry of Labour and Social Security of the RF on April 22–24, 2014. In reports of the participants, it was noted that Russia has no effective methods of protection from discrimination for the trade-union leaders – there is a ban and punitive measures yet no mechanism to allow proving the fact of discrimination.

Third, in order to reinforce the authority of trade-union leaders, the system of their work has to be formed in such a way as to render their leadership indisputable for the head of the organization. This can only be achieved by implementing the principle of

independence of trade unions. It is critical to build in practice the activity of trade unions beyond the domain of one employer, bringing under the coverage of the primary trade-union organization a branch within one municipal formation (a town or city, an area). For this, it is not only the head of the primary trade-union organization and the members of the elected trade-union authority that have to be excluded from the number of workers of the organization, but it is also representation and protection of labor rights of members of the trade union of a certain branch beyond one organization yet within the town or city (area) that have to be included into their powers. As a result, there will be several primary trade-union organizations that really act within the town or city (area) covering by their activity all the employers of the town or city (area) but specializing in its branch each. So the quantity of leaders – heads of the primary trade-union organizations – will be equal to that of the trade unions. As a result, a trade-union leader will gain a real status of independence.

Such a system of leadership in the labor law of Russia will not entail any significant change in legislation and will prove its value in the best way because the contemporary activity of trade unions that is regulated by the labor law standards a priori prevents a trade-union leader from coming up in an organization: the organization head as a formal leader will keep repressing the head of the trade union – the informal leader.

The leadership system suggested will enable the head of the organization to act efficiently – and independently, without having to “look back at” the opinion of the trade union, making the managerial decisions and economically developing the organization and the country’s economy as a whole. Simultaneously, such a system will allow exercising an effective protection of labor rights and interests of the workers by a trade union guided by its actual (informal) leaders – head of the trade union. In this case, the workers being members of the trade union may vest in the primary trade-union organization a right to represent and protect their labor rights and interests, including one to go to the court. Then, the management of the primary trade-union organization does not depend on the employer in any way; so by exercising its authorities, it will be able to efficiently restrain the power of the formal leader – the head of the organization. This research will allow solving the problem of leadership in the organization and radically changing the system of nonjudicial protection of the workers’ labor rights and interests by a minor modification of the current legislation.

5 Conclusion

Russia’s national labor legislation that was formed in the USSR times has been repeatedly changed as transformations in the country began, in order to adapt it to the new conditions. During the changes, it was found out that many provisions on leaders in organizations were unacceptable under the new conditions. The long-established concept about the position of leaders in the organization, its head and the

trade-union president, was changed too. They came to represent opposing parties each having their own not coinciding interests. New forms of ownership and development of contractual relations made the heads of organizations adopt new approaches in management and new relations with trade-union leaders who ceased to be opinion allies with the formal ones. The labor legislation did not always catch up with the rapid development of new relations. So the question of achieving a balance of interests for the parties to labor relations and a balance of relations between the head of the entire collective and the representatives of parties, respectively, has become relevant. For attaining such a balance, the actual equality of parties and their legal representatives is crucial. The organization head as the employer's representative (the formal leader) is in a more favorable legal position as compared to the other party's representative – the trade-union leader who is a hired worker and thus subordinated to his owner's power. Such a position can only be changed by ensuring independence for the trade-union leader. For this, the trade-union leader has to stop being a hired employee under the authority of the organization head. In other words, by bringing the primary trade unions beyond the organizations, independence can be ensured for the trade-union leaders, and they can be granted equal rights with the leaders – heads of the organizations. Simultaneously, this will not only produce a positive effect on achieving the balance of interests of the parties and their representatives, two leaders, but also enhance the level of protection of the workers' labor rights and interests.

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Leadership Phenomenon in the Youth Environment



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Abstract In the paper presented, the questions of the general condition of the Russian youth as a special social and demographic group are posed, and the main features that are inherent in the young people and influence the social activity are identified. The technique used in the research is of a holistic nature and integrated approach; it includes the general, general-scientific, and specific methods: the activity-based one, the institutional one, the social and cultural one, the systemic one, and the interdisciplinary approach to analyzing the phenomenon of leadership. As a result of an in-depth analysis of the youth leadership phenomenon, the authors have made more precise the notion of youth leadership in the structures of state and municipal administration from the standpoints of the institutional and social and cultural approaches. The conclusion is made that youth leadership can be legitimated based on the interaction of youth, its leaders, and the power institutions by developing the promising forms of organized social activity of the young people (youth forums, volunteering).

1 Introduction

The phenomenon of leadership is studied in many branches of the humanitarian knowledge, its most diverse sides and aspects being considered and analyzed there. Social-psychological and social-political approaches to studying the problem of leadership are the most widespread ones (Pechenkin 2006). In the research suggested, the problems of leadership formation in the youth environment are going to be discussed.

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Russia's young people are quite a numerous social group (36.3% of the population of Russia or 19.6% of the employed ones). They are the country's future, for it is the youth and their principles and aspirations that are going to determine the direction of development of the state. At the same time, today's state policy and condition of the society shape the priorities and references of the young people, laying down their value-reference foundations. It is the active young people who are prepared to pursue their cause that will independently determine the image of the country's further development, among other things.

The state and municipal youth policy acts as the paramount factor for initiating the social activism as well as for advancing the youth leaders, being the most effective tool for the state and municipal authorities to influence the social relations among the young people. The legal basis of the youth policy at the federal and regional levels is the foundations of the state youth policy of the Russian Federation for the time span of up to 2025, adopted by the Resolution of the Government of the Russian Federation dated November 29, 2014, No. 2403-p.

The keen attention to the problem of leadership (in this study – in the youth audience) stems from the fact that further development of the entire social system will depend on standpoints and actions of those who are to manage both small and large social groups, organizations, and structures according to their system of value references.

In spite of this problem being studied enough, there still are a number of research directions remaining beyond the attention of the scientific communities, the culturological one belonging here too. As for today's situation, it is the culturological view of the processes and phenomena that is of the highest priority, because it involves focusing the attention on studying the value references of human, therefore, cultural, and transforming activity as the dominants of leadership.

With regard to this, the development of culturological approach seems relevant – of one that allows comprehending not only the psychological particularities and real conditions under which a leader acts but also identifying the values- and meaning-related nature of leadership (Pechenkin 2006). The motives of leader activism fulfilled by individuals and shared by the society are determined by the specific features of studying the meaning-related dominants found out by culturological analysis.

The analysis of real social and cultural models that are implemented in the main spheres of human activity, in particular, in its spiritual, material, social, and political subsystems, renders the institutional, social, and cultural studies of leadership important.

The spheres of political and economic life of the society are known to gain the greatest importance under social transformations, as it is they that determine its development vector.

In the above spheres, sufficient activity is performed by social subjects that can be identified using various social structural and stratification attributes. Among these, there certainly are the extent of social activism and the ability to influence social processes.

The young people being a social group that has a high extent of social activism and as a rule is in the thick of the social processes while also having a certain social and cultural potential, in this context, they become one of the most significant groups.

However, the young people do not possess a sufficient managerial resource for producing some actual effect on the life activity of the social system as a whole – in other words, there is no access to power for youth. However, the specific character of this group is manifested in such an access being possible and in their having an opportunity to fulfill the leadership potential in the future. Hence the model of leadership in the youth environment becomes extremely relevant from this viewpoint.

Nevertheless, currently the young people directly influence many social processes, so there arises the necessity to single out and study the phenomenon of leadership among the young people that is implemented in the process of political and economic transformation (Pechenkin 2006). This happens because it is these spheres of life of the society that accumulate the main leverages on the social and cultural situation.

2 Review of Literature

The phenomenon of leadership has been studied for quite a long time, which is confirmed by fairly large scope of the material available, “among that there are works both of major thinkers of the past and of the leading contemporary researchers in culturology, philosophy, social psychology, sociology, history and politology” (Solovieva and Gavrilova 2013).

The classical experience of interpretation of the phenomenon of leadership under study and the subtle comprehension of it date back to the antiquity epoch owing to the ideas of Aristotle, Herodotus, Plato, Plutarch, and Socrates and were developed by classics of the social and cultural thought of various times whose heritage is the basis for the heroic interpretation of cultural and historical processes.

The twentieth century is the time of the greatest interest in the phenomenon of leadership, which is confirmed by works of the Western European sociologists and social psychologists.

The representatives of activity-based approach to leadership are Lord et al. (1986). According to them, its basis is the actions and behavior of this or that individual (Greenleaf 1991; Kuczmarski and Kuczmarski 1995).

In the twenty-first century, the interest in the problem of leadership gets even more development in the works of Cangemi (1997).

Among the representatives of the classical Russian social thought who have addressed the problem of leadership, one can point out the works by Berdyaev (1993). They singled out compulsory features a leader has to possess: a high level of intellectual development, firmness of moral principles, respect for freedom, and an ability to rule (Berdyaev 1993).

The activity-based approach to personality was worded by A.N. Leontiev; it follows from that leadership is predetermined by the group's objectives and tasks that determine both the probable leader and the future style of his leadership. The sphere of interests of another researcher, Ashin (1978), included the structure of personality of a leader and various aspects of group leadership.

The modern Russian science works out many aspects of youth and political leadership.

In the recent years, there have been interesting studies, such as Galiullina (2002), Zozulya (2013), and Khozinov (2016), concerning the study of the young people as a social and cultural group; aspects of the rise of a personality; viewing of leisure, professional, cultural, and moral priorities of the young people; and problems of the youth policy.

3 Methods of the Research

The authors interpreted youth leadership while bearing in mind the interpretation of the leadership problem relying on the activity-based and institutional approach to the study of particularities of the rise of youth leadership in state administration.

The specific features of the research made it necessary to use the interdisciplinary approach and theoretical analysis of the phenomenon of leadership. The authors relied on the social and cultural approach to the understanding of society as a social and cultural system that emerges and changes as a result of actions and interactions of people (Pechenkin 2006).

The typological method used in the paper allowed analyzing and grouping into types the historically developed ideas about leadership (in this case – among the young people) as well as finding out how the phenomenon of leadership is associated with social and economic processes, the development of organizational structures of certain epochs, and the key worldview preferences.

4 Results and Discussion

For an independent and mature civil society to develop in Russia, active participation of all groups and strata of the population is critical. In particular, leadership skills of the young people and youth organizations within the system of social administration at various levels become especially important.

As of today, the Russian Federation has no established and successfully reproducible system of values or a shared (by everyone) idea that can unite the society. Given the above, the authors believe Russia needs a new development strategy, a new national idea which would be able to replace the obsolete Communist ideology and fill in the “blank spots” in the human conscience. It is critical that such an idea be able to help the young people put down the value-related basement of personality

and to guide them in the unstable political and economic situation. Yet from where do values appear in the society? One of the mechanisms for the rise of values is the preparation of a leader who will be able to bring across his values and ideas to the general public.

It should be noted that in Russia “there is a constant high need of the society and individual social organizations of searching for and selecting the successful leaders” (Fatkullina et al. 2015: 575). Today, a special attention should be paid to the development and rise of the youth leaders because the young people have quite a high specific weight in the country’s total population, and in the future, their role in the development of the country will only grow (especially given the “aging” of the population). Nowadays, the RF young people amount to 35.2 million of the young citizens, which is 24.5% of the total population number of Russia.

On balance, according to the data of RANEPa, especially dramatic reduction of number of the young personnel is observed at the age of 23–28, which is the most productive age both in the economic and social terms – from 35% to 50%.

The development of youth leadership is largely due to the high competition not only in the regional and national labor and employment market but also in the world political and economic market, to the necessity of ensuring a decent quality of life for the country’s citizens and the future generations. Given this, the task of forming a new youth leader has grown especially urgent for the society.

The contemporary Russian young people are generally known to be characterized by quite low political and social activism, especially as compared to the older generation. Now, some results of the survey conducted by the RAS Institute of Sociology and the RF branch of the Friedrich Ebert Foundation are going to be considered:

- almost each second young Russian citizen questioned (49%) has not taken part in social and political life of the country, region, city or town in the recent years;
- over a half of the surveyed ones (51%) do not know anything about the activity of social and political youth organizations;
- it is only 18% that have heard about them;
- other 30% were at a loss to answer;
- Moreover, in the eyes of most young Russians, neither youth organizations nor “adult” political parties look the “social lift” which would allow them to fulfill themselves. The directly worded question: “Would you like to become a member of a political party or a political youth organization?”;
- was answered in the positive by 9% of the respondents;
- the vast majority (70%) have refused downright;
- only about 2% said they already were members of such organizations. (Lisitsa and Konstantinova 2013)

In the structure of value references of youth leadership and from the standpoint of the state youth policy (SYP) in the Russian Federation, an important role is given to upbringing of patriotic values. Patriotic upbringing of the young people is one of the principal priorities of the SYP, and the key operator of the state program “Patriotic upbringing of the citizens of the Russian Federation for the years 2016–2020” is the Federal Agency for Youth Affairs.

As the survey shows, the young people and the society as a whole have controversial ideas about the role of the young generation in the social, economic, political, and spiritual spheres, with the majority of the young people having a low level of social activism (Solovieva and Gavrilova 2013).

Moreover, almost a half of the respondents (47%) think that “today’s young people “do not like working” or “work badly.” This is quite frequently reported even by the very respondents aged 18–30 (38%)” (Zozulya 2013).

The ambiguous attitude is also observed in the respondents as for the patriotic values. Almost two thirds of the young people (61%) consider themselves to be patriots. The fact that “one who does not know the history of one’s country cannot be a patriot” (68%) seems “curious enough” (ibid.).

The reason of the resulting situation seems to be in a lack of the system of values and efficient leaders. Without understanding the values of today’s society, it must be inappropriate to speak about leadership in the youth environment to the contemporary young people and actually impossible to determine the technologies for “raising” youth leadership (Korshunov and Mantatov 1988; Bass 1960; Burns 1978).

By the term value, they understand “. . . such a universal phenomenon that plays the part of a regulator in people’s activity and forms the structure of personality. It serves as a certain social paragon, a criterion to gauge the human action against” (Korshunov and Mantatov 1988). No social group can function without certain values, and it is the leader who creates or “collects” and broadcasts these values (Cavalli 1986; Conger and Kanungo 1988 etc.) Meanwhile, true leadership is grown from the inside – it does not come from beyond.

The only way by which one can win trust of one’s followers is the compulsory development of one’s own inner leader and personal values that reflect the structures of social values.

The leader’s proficiency depends on his belief in himself, and the development of oneself as a leader begins from comprehending one’s key beliefs and values. These qualities are essential for fulfillment of a harmonious leader in which words and deeds are consistent with each other and whose socially oriented attitudes are clear. Traditionally, three clusters of values are singled out, the third one being orientation to social welfare, to creation of the surrounding, “ecological character” of leadership and an ability to undertake responsibility.

For a leader, identification of one’s value references means finding a starting point for consciously determining one’s strategy and tactics, a possibility of forming a team, selecting projects and tools for their implementation, a style of leadership.

Thus, it can be stated that values are a foundation of leadership and leadership is the vehicle bringing values to the society. They mutually complement each other ensuring sustainable development of the entire social system (Galiullina 2002). The problems of the rise and formation of youth leadership still remain urgent and open while also being little studied phenomenon, because the aspects of formation of leaders and their values are paid more attention in the structures of a grown-up formed collective, in various business structures. However, youth leadership is of equally large importance.

Given this, the task of singling out and upbringing the leader elite is a critical one for the state youth policy. The value-related bases that will have to be created and ways by which youth leadership will have to be formed in order to ensure a decent future for Russia depend exactly on solving this task.

Including the youth organizations and their leaders into managerial structures will promote their being recognized as formal spokesmen for the interests of all the young people, i.e., their getting institutionalized.

As of today, according to the authors, consolidation and institutionalization of leadership of the young people within small groups and the youth organization encompassing the total of youth are the most promising ways for involving the young people into public administration.

Using the sociological survey results, a list of organized activity forms of the young people was compiled that expresses the interests of all young people in the most effective way (Cangemi 1997). The organized activity forms are inbuilt between the youth and the power institutions, so they condition a mechanism using which the interaction of power institutions with the young people will occur (Khozinov 2016).

Sociologists have paid attention to the processes of new social institutions emerging in the structure of the society, to institutionalization of the modern formal organizations. Selznick (1957) put forward a statement to the effect that “institutionalization commences at a certain stage – when an organization amasses enough traditions, and its head using the sufficient authority and leadership can launch this process” (Selznick 1957: 27–28).

“Institutionalization is a process which is the third stage of the rise of an institution meaning the consolidation of a social practice at the level of institution, codifying the status,” accumulating “the organizational infrastructure and material resources. In administration, a social institution goes from the common law and moral standards on to the current legal standards, i.e. to legislative administration” (Khozinov 2016: 147).

When a certain informal ideology and worldview are created and developed, the modern youth organizations get institutionalized. It is on this basis that, within the context of behavioral approach, certain behavior patterns and rites can be formed that are inherent in a certain youth organization but become a reference for other organizations, if the latter take up the experience of more stable and successful ones. Bright examples of that are the Soviet Young Communist League (Komsomol) and today’s student youth.

The studies of the latest decade argue that such youth organization formats as youth committees (congresses, foundations), youth chambers, and volunteer organizations are the most efficient ones, provided that enough attention is paid by the civil society and a larger freedom of action is granted on the part of the state and municipal authorities (Salagaev 2004).

In order to organize the decisions being brought across efficiently, the mass communications media and the Internet also have to be introduced widely (Fatkullina et al. 2016). It is not difficult to find representation of the youth organizations in the Russian segment of the Internet because most network users

of today are the young people aged 25–34. Successful functioning of most sites is ensured either by the youth leaders or by their deputies. Thus, the fulfillment of leadership potential of the young people via the social networks is a very important aspect of youth leadership. Certainly, it is the most active members of youth organizations that become candidates put forward by the “masses” to be leaders.

As it has been previously mentioned, the particularities of youth leadership in the contemporary social and cultural situation are determined by the relevance of rethinking of many values. First of all, surely, a special attention is paid to the spiritual development values of man as a subject of culture and the human attitudes toward the world. Therefore, for today’s society, it is the social and cultural qualities of leaders that gain special importance and become the main factor of renewal of the society.

Thus, it can be stated that such a complicated phenomenon as leadership cannot be understood completely if one does not make an effort to gain insight into the meaning-related content of the value-based phenomenon of the cultural context. Within the context, a leader is first and foremost viewed as a creator of viable values.

5 Conclusion

As stressed by the researchers, “at all times, leaders – heads of the most diverse social groups – have been deemed to be (and have actually been) the inspirers of the human community. However, either their activity was not efficient enough, or it was not intentional toward the universal criterion of the progress of culture, because the development of the society has achieved the crisis condition of today” (Pechenkin 2003: 23). Therefore, under today’s conditions of development of the society, it is the leaders’ implementation of essential forces and first of all of their value-related component that becomes relevant.

The institutional approach has allowed revealing the main social problems and prospects of development of youth leadership in state administration.

Such organizations as the youth chambers and youth forums are the closest ones to the possibility of achieving a consensus between the social administration subjects and the young people (Khozinov 2016).

Having turned to the experience of considering the leadership in the works by Russian thinkers, the authors have found out that they paid intensive attention to value-related constituents of this phenomenon that are able to determine its specific features under the certain historical and ideological conditions.

Having worked on the data introduced into the development of the problem of youth leadership in the works of both foreign and Russian scholars, the authors have succeeded in identifying the main content-related components and forms of implementation of this phenomenon that seem significant for considering leadership both from the standpoint of the institutional approach and from a culturological point of view (the intragroup communication that implies the leader’s convincing his followers, influencing the followers, the emotional features of a leader’s personality,

his adherence to special values, finding out their mutual influence on each other as well as determining the conceptual attributes of such phenomena as the “value” and “references” of leadership, and so on).

Thus, it can be stated that leadership among the young people is a social and cultural phenomenon dynamically changing together with the society and culture. Therefore, the particularities of leadership in today’s social and cultural situation are largely determined by its historical specific features.

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Business's Social Orientation: Genre Specificity of Sports Brands' Accounts in the Social Media



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Abstract The research focuses on the analysis of social marketing communicative tools used for positioning and promotion of products manufactured by sports brands Puma, Reebok, and Adidas Originals. Sportswear and equipment are connected with sports, being a system of social values. That is why PR and advertisement specialists pay much of their attention to the resources of social marketing, which allow combining commercial goals with socially oriented activities, thus decreasing a critical perception of brand positioning materials. The authors research genre specificity of sports brands' accounts on Facebook to define the correlation of advertising and phatic genres of social support, aimed at broadcasting socially important priorities and guidelines. The research is carried out in the frameworks of communicative-pragmatic approach; the methodology used includes the methods of discourse analysis, linguistic description, and intent analysis. According to the results of the analysis, socially oriented messages posted on sports brands' Facebook accounts amount to one third of all uploaded messages. It helps the companies to promote not only their products but also some socially important values, such as healthy lifestyle, a way in which people should perceive their bodies, themselves, and the whole world around them. The main trend of positioning activities on Facebook is hybridization of the genres used, which consists in combining advertising and socially oriented genres. It helps to camouflage the advertising message, making its manipulative character more obscure. As the result of such communication policy, social networks' users become a sort of advertising agents distributing information about the company and its products.

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1 Introduction

There is little doubt that social networks have firmly established themselves as a part of our everyday life. According to TNS (the biggest media research company in Russia), in the years of 2015–2016, the amount of social networks' users has been gradually growing. Thus, now the number of VKontakte (In Contact) users hits 46.6 million people, and Odnoklassniki (Classmates) ranks second with 31.5 million users. In December 2015, there were 21.7 million people registered on Facebook; the number of Instagram users grew by 2 million, and now it is 12.3 million people in total. Twitter did not attract new users; nevertheless, its audience amounts to 7.7 million people.

That's the reason why so many researchers from different domains pay their attention to the issue of social media (Costanza 2017; Solem and Pedersen 2016; Nuseir 2016; Evans and McKee 2010; Barnes 2010; Can and Cetin 2016; Bang and Lee 2016; Gökhan 2016; Fegade 2013); some of them pay particular attention to Facebook (Rakic and Rakic 2017; Azaria and Tsikeli 2015; Lukka and James 2014; Rehman et al. 2014; Waller et al. 2014).

2 Literature Review

Nowadays the role of the Internet in the world of marketing and sales cannot be overemphasized. "As a marketing tool, Internet and digital media is a significant strategic weapon which goes beyond borders and targets the specific audience in accordance to the consumer needs. It is not dependent on the location, area or region and free of all the temporal restrictions" (Nuseir 2016). It is clear that the companies, willing to attract attention to their products or services, as well as to earn the confidence of consumers, have to use social networks as a marketing tool.

Moreover, the marketing communication through other channels has been gradually becoming less and less effective, because modern consumers pay little or no attention to these channels. Social networks became a relatively new channel for the distribution of companies' information; this channel has not yet bored the consumers, and it easily draws their attention and allows using a wider scope of marketing tools. According to F. Costanza, social networks users become active content generators rather than passive observers; thanks to the social media, they have a chance "to influence each other's opinions and choices" (Costanza 2017: 131).

This situation cannot be neglected by the manufacturers and marketing specialists. "An explosive growth of social networks has updated the concept of PR-professional, adding to his or her broadcasting role a role of an aggregator. Having been a broadcaster, this professional simply had to distribute information and supporting materials of the company; being an aggregator, he or she has to compose and systematize the content, form consumers' networks, take an active part in their discussions" (Veber 2010: 33).

Social networks allow companies to organize people interested in the product into communities and present them with the content, which corresponds with their needs. It is obvious that we are talking about the advertising content; people tend to trust the advertising content much less, than before, so here we face a new and remarkable trend to “pack” information about the product into the content, which provokes a positive reaction of the consumers and makes the company look socially oriented. Social marketing, being a concept of coordination and reconciliation of company's, consumers', and society's interests, becomes a powerful tool, which allows attracting attention to the product promoted, forming a positive attitude toward the said product, introducing it into the recipient's cognitive base, and, as a result, boosting sales.

Different companies effectively combine their commercial goals with certain social activities, often camouflaging themselves as socially responsible actors, thus soothing the consumers' critical thinking. Social marketing has the same goal as public state announcements – to improve lifestyle of both each individual and the whole society. Nevertheless, here we can mention the achievement of commercial goals, which become less noticeable behind the company's social responsibility facade.

The concept of social or socially oriented marketing rests on the idea that solving social issues is an effective strategy, both concerning *commercial* and *social goals*, because those goals *do not contradict* each other.

Thus, we can define social marketing as an activity aimed at meeting the requirements of the company's target audience by offering it a noncommercial product at a certain cost (not necessarily expressed in monetary units), in a certain place, and with the certain communicational component. Social marketing is the main tool for the company to implement its social responsibility policy, which “combines the uncombinable,” i.e., economic effectiveness and social benefits' production costs. It is orientation toward the economic effectiveness of communication activities that differentiates social marketing from public state announcements: the concept of social responsibility is used as a tool of reaching the company's marketing goals.

This social marketing tool is used most successfully in the case of products that have social orientation in their core: sportswear brands, healthy nutrition, education, etc. “Sportswear has a special communicative, social, psychological, and conceptual charge: it serves physical perfection of the individual, symbolizes development and healthy lifestyle, encourages people to communicate and compete. Thus, sportswear business is a social and economic activity, which performs a very important function of aggregation people in joint sports activities” (Myakonkov 2001).

3 Research Methods

The present paper is aimed at the research of social marketing, as a particular communication activity, using the means of linguistics. The main objective of this research is to study the genre specificity of sportswear brands' Facebook accounts (Puma, Reebok, Adidas Originals) and to define the ratio and/or interaction of

advertising and social support genres, which usually help to form a motivation field around the brand and create some socially important values and guidelines.

Methodology of this research is based upon communicative-pragmatic approach, presented by the method of discursive analysis. We considered certain statements to be the “limit” units of the discourse and used the method of linguistic description, including observation, analysis, and synthesis of said language units, to define some language peculiarities of the genres under discussion; to analyze both implied and explicit intentions of the authors, the method of intent analysis was applied.

The material of this research consists of posts published by the sportswear and equipment manufacturers, such as Puma, Reebok, and Adidas Originals, in their official accounts on Facebook (2015–2016). We manage to analyze 241 posts.

4 Results and Discussion

Social networks utterly became a very comfortable tool of camouflaging the commercial goals as socially oriented ones; it can be explained by their very nature, because social network is a platform that simultaneously unites different people in the act of their *communication*. In case if it is possible to create a definite atmosphere, the social network’s users can become a sort of *advertising agents* distributing information about the company and its products (services) through the web for free (meaning reposts, invitations to different groups, forums, blogs, etc.). This is a very good opportunity, because the most efficient advertising tools are real people’s opinions. Though, unfortunately for the advertiser, the direct advertising messages are not likely to provoke a necessary communicative boom; that’s why this positioning communication becomes indirect. All the topics that are important for the recipient should lead to the company’s product; thus, a classical advertising model “problem – solution” has a peculiar reflection in the social networks discourse. Therefore, different advertising genres are substituted by phatic ones, or we face some hybrid genre forms (phatic and informative); the genre form may be defined by some formal evaluation criteria of positioning posts’ effectiveness: likes, reposts, comments, etc. Advertising text rarely provokes an intensive response, compared with socially and value-oriented messages.

Even a short glance at the content of sports brands’ accounts leads us to the conclusion that along with sportswear and equipment, the sports brands sell people some certain lifestyle, a way to perceive their bodies, themselves, and the whole world around them. The bulk of advertising messages in this sphere has some motivating component: “Stronger with every run” (Adidas Original), “Be more human” (Reebok), and “Play your game” (Puma). The product information becomes only a part of this motivating component.

In the course of communication with their consumers, these sports brands usually work with the need for socialization and psychological comfort; they promote a healthy lifestyle and form an image of socially oriented companies. However, in order to go in for sports, we need some equipment and clothing, which are promoted

by the same companies. It is necessary to highlight the fact that not every account subscriber can become the company's goods consumer, even taking into consideration the company's socially oriented activities. It happens due to several reasons, one of which is money issues. In any case, he or she becomes the consumer of a certain social content, which may transform his or her system of values, attitudes to his or her body, and motivation. Thus, such a marketing strategy becomes a long-term one; in the future, some loyal subscriber of the company's account may potentially become a loyal consumer of the brand.

The analysis of sports brands' Facebook accounts allowed us to define a complex of phatic (contact establishing) and advertising genres. Among phatic genres, we may define the following types: small talk, addressing, advice, congratulation, wishing, greeting, and social support genres (inspiration, encouraging, care, approval, praise, and compliment). The main advertising genres are as follows: advance advertisement, announcement, promise, specialist's opinion, report, invitation, and motivation (call for an action). From the point of view of intention, all these genres have one common goal – *to sell a product* – thus, when we speak about the phatic genres, we mean *advertising genres camouflaging as phatic genres*. Anyway, it is important that the consumer perceives them this way.

From the point of view of socially oriented genres, social support genres are of the greatest interest. What do researches mean by *social support*? It is “a communicative act that actualizes an addresser's speech intent aimed at influencing the addressee to improve his or her self-awareness (feeling, self-esteem, and self-image)” (Yankina 2013). If we speak of sports brands' product promotion, this social support results in motivating the recipient to perform some socially important actions that may improve his or her life quality.

Thus, the bulk of messages from the Reebok's account aim at their advocacy of healthy lifestyle and going in for sports.

1. *Good morning, pals! Don't forget about your morning exercises!*

This message is a good example of genre hybridization: the genre of *greeting* is combined with the genre of *advice*, “Don't forget about your morning exercises,” which has a motivating function.

2. *Have you challenged yourself?*

3. *Today's motto is “Away with lifts and escalators!”*

4. *Are you ready to become a better copy of yourself?*

5. *We are waiting for a like and 30 burpees from each person, who reads this.*

6. *It's Monday, it's the day to start a new life. Start it with Reebok. Thumbs up if you're with us.*

7. *Be a hero of MAD MAX DOJO team and come to the next workout called “The fighter's run.” Remember: practice is success! This Monday, the Victory Park on Poklonnaya Mountain!*

The example (7) includes the phatic genre of *encouraging* (Remember: practice is success!) and an *advance advertisement* telling the day and the place for an upcoming event. However, the event advertised also makes us perceive the company as a

socially oriented one, because it allows the recipients to organize their time and take part in an event, which is good for their health.

At first sight, the commercial component of this communication activity is vague, though here it is – if the recipient makes sports an important part of his or her life, Reebok may become a necessary element of it as well.

Social support genres are also very popular among the other sports brands.

Puma:

8. *I can't stop and I never will. I'm charged up for a whole weekend.*
9. *Less excuses. More endorphins. Workouts with Puma.*
10. *Lace up, stand out and live#WITHOULIMITS*
11. *Work out every muscle. Increase your net weight. Change the rules. #ForeverFaster*

Adidas Originals:

12. *Explore. Discover. Feel. Adidas Originals exhibition in the frameworks of ART. UP ART.IN. festival. Works of Val Chtak.*
The trainers that are ahead of time, have been rethought today.
13. *Get ready. #NMD. Put on your tracksuits and show them to the world. In the street or in the sports grounds – it doesn't matter. Today is #adidastracksuitday.*

This post (13) uses *encouraging* combined with *announcement* (Put on your tracksuits and show them to the world).

The genre of *encouraging* is used in the sports brand's communication with its consumers very often, because people need to be motivated to go in for sports every day; this increased interest in sports is the main component of the desire to purchase sportswear and equipment. Moreover, the posts of such type have a psychological effect on people: they are more likely to return to the brand's account to get some motivation charge, to feel and understand their inner resources.

It will be also interesting to analyze Facebook accounts of sport brands Puma, Adidas Originals, and Reebok concerning the ratio of advertising and phatic genres.

Advertising genres prevail in Puma's account (about 70% of messages), which corresponds with the general intended purpose of this tool – *to sell the product* – though about the third of all messages include texts oriented toward promotion of sports as system of social values.

Puma, compared with Adidas Originals and Reebok, is less active on Facebook and does not use many informal means of communication with its subscribers. The *small talk* genre makes 6.3%; the *addressing* genre is 3.6%. However, the *encouraging* genre is the leader among other phatic genres and makes 16% of all texts researched. Besides, Reebok also uses this genre more often, than other sports brands under discussion.

Probably, Reebok's PR specialists consider this genre the most effective one, because it stays in line with the specificity of Reebok's target audience. However, the genres of *greeting* or *congratulation* are scarcely used. As for advertising genres, the brands often use *announcement* (32.1%) and *promise* (18.8%). The gap between using the genres of *advance advertisement* and *report* is quite huge and not logical

(21% and 10.6%, respectively). Puma more often, than other sports brands, uses the genre of *promise*. There's hope that the company knows the needs of its customers; that's why it uses this genre to influence people. Compared with Adidas Originals and Reebok, Puma does not use the genre of *invitation*, which helps to maintain contact with the audience and is an important component of *advance advertisement* genre.

Reebok's Facebook account is very interesting from the point of view of analysis, because it utilizes the whole diversity of genres, which were included into the classification of phatic and advertising genres used in social network communication.

This company stays in an active contact with its audience, because the genre of *small talk* is used quite often (8.3%); it is the only company that uses phatic genres of *congratulation* and *greeting*, which are very important in the context of consumers' loyalty formation. The leading advertising genres are *advance advertisement* (21%) and *announcement* (11.3%). It should be noted that most of these advertising genres are mimicking everyday communication, implying such genres as *care* and *encouraging*. Thanks to this approach, advertising messages become more implicit. If we consider the ratio of advance advertisements and announcements, we can draw a conclusion that this sports brand chooses events, as important elements of socially responsible business, for its promotion. Such events may include outdoor workouts, master classes of famous fitness guru, etc. Reebok does not use a motivation genre, such as *call for an action* (2.3%), too often; thus the consumer does not feel any pressure or desire to manage his or her decision-making process.

If we turn to Adidas Originals, we can see that this brand has only four posts of *small talk* (4.3%) aimed at informal communication with the audience; this happens because Adidas Originals doesn't feel it is necessary to communicate with people using this genre; this brand is an absolute leader in the market. They use the genre of *addressing* only in 4.3% of all messages analyzed. This is the only brand that does not use the genre of *care* at all.

The most common advertising genre for Adidas Originals is *announcement* (48.9%); it is much more, than compared with the other two brands. Adidas Originals also uses *advance advertisement* genre quite often (16%). It should be noted that this company, more often than the other two, posts advertising motivating texts using the genre of *call for an action* (10.6%).

All accounts analyzed are very specific in terms of their genre structure, volume of content posted annually, and volume of messages themselves. Each company executes its individual approach, but the goal of each message is to surprise the consumer and make him or her follow the company's account on a regular basis. That is why most texts posted on Facebook are of a hybrid nature. Some texts use two advertising genres simultaneously to enhance the effectiveness of a message; for example, *advance advertisement* may include *promise*, which heightens the audience's interest. Very often two types of genres – phatic and advertising – are combined in one message; this is a peculiarity of social network communication, which helps to camouflage advertising. A good example is combination of *advance advertisement* with *encouraging*.

14. *On January 12, we open registration for the most important and upscale event in the life of any CrossFit athlete – The CrossFit Games Open 2016. People of all ages and skill levels may take part. One of them is Evgeniya Vereschak – mother of three and a manager of “Reebok Park Workouts” project, CrossFit division of Reebok’s marketing dept. Evgeniya managed to combine her passion for CrossFit with her professional activities. Noe she represents Reebok in the world of CrossFit.*
Perfection was made by others. Be yourself!
Gigi Hadid#PerfectNever #BeMoreHuman #GigiHadid
15. *Dear friends! We are happy to announce that the registration for an upcoming Reebok event will be open on the 10th of April. Become more human!*

5 Conclusion

Each of the companies researched works in the area of sportswear and equipment manufacture, though their activities on Facebook differ. Overall, all brands have adapted to the specificity of social networks; in their accounts, they use different phatic genres to establish the loyalty of consumers by appealing to their social needs.

As is was said above, Puma often uses a phatic genre of social support called *encouraging*, which is well regarded by the brand’s consumers (comments, likes, reposts). This genre is used by itself or in combination with other advertising genres.

Reebok uses phatic genres more often. They utilize in their account all phatic genres defined in the course of analysis.

Adidas Originals posts texts with advertising component prevailing over other individual phatic constructions. For example, the leaders among the other genres are *announcement* and *advance advertisement*.

All three accounts use advertising genres more often; even the posts that are comprehended as phatic ones include an implied advertisement message. From the point of view of genre analysis, most of the posts researched are hybrids including an advertising message packed into a motivating context.

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Theoretical Aspects of Academic Leadership Issues in Modern Russia



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Abstract In today's world, the problem of leadership, primarily academic one, is highly relevant. Natural and social disruptions contribute to declining demographic indices of any country, while people make up one of the most important resources of the society. The problem of influence on the behavior of the community members and groups therefore becomes particularly relevant. Social transformations, primarily, are the processes of globalization. The globalization of the world means a process of worldwide economic, political, and cultural integration and unification. As a result of globalization, the world becomes more interconnected and more dependent on all its subjects. And at the same time, social group sovereignization processes are taking place. Globally, the examples are such processes as Brexit in Europe and republics striving for sovereignty in Russia in the last decade of the twentieth century, while personally, it is manifested in the need for self-actualization. The purpose of this article is to identify theoretical aspects of academic leadership in contemporary Russia. On the basis of social and philosophical approach to the issue under study, we conclude that in the context of the world community globalization and regionalization controversy, people and groups who can influence on others (for various reasons) become particularly important. These are, first of all, scientific and educational communities, as well as their charismatic leaders.

1 Introduction

In today's complex, dynamic, and controversial world, the problem of leadership is thrown into a sharp relief. The society undergoes significant natural and social transformations. The former entail climate changes and depletion of natural

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resources and energy sources, which in turn contribute to the growth in scale and number of natural disasters and calamities. The latter constantly updates the question of society restructuring giving rise to such problems as alcoholism, drug addiction, and suicide rate increase. Both natural and social disruptions contribute to declining demographic indices of any country, while people make up one of the most important resources of the society. The problem of influence on the behavior of community members and groups therefore becomes particularly relevant.

Social transformations, primarily, are the processes of globalization. The globalization of the world means a process of worldwide economic, political, and cultural integration and unification. As a result of globalization, the world becomes more interconnected and more dependent on all its subjects. And at the same time, social groups sovereignization processes are taking place. Globally, the examples are such processes as Brexit in Europe and republics striving for sovereignty in Russia in the last decade of the twentieth century, while personally, it is manifested in the need for self-actualization – the highest level in the hierarchy of needs (Maslow 2006).

Information and communication space plays an important role in the process of globalization. Scholars highlight that “real globalization processes occur concurrently with the information stage of the modern scientific and technological revolution. Human society got a new informational dimension, the potential of which is not fully realized yet. This dimension still exists mainly in the embryonic form, under the assumption” (Bratimov et al. 2000). A person is mentally helpless in the face of the new world. According to A. Toynbee (2003): “Quite recently, they (people) called all incomprehensible things influencing them as” God “; today the most popular term is the concept of “globalization” used roughly speaking for the same aim. The acceleration of the life pace has become one of the features of globalization. It seems that distances between the countries are shrinking” (Toynbee 2003; 66).

Indeed, due to the global information and communication network (Internet) development, the borders between countries, social institutions, and individual people become illusory. Information globalization processes are objective, conditioned by the immanent need of a person for the surrounding world improvement, which as a rule is of liberal nature. However, in terms of social philosophy, we cannot agree with such univocal assessment. Indeed, we should agree that in the field of global information networks, there is an emergence and cultivation of the responsibility image of each and every individual for the fate of others, problems, conflicts, state of the environment, and political and other events in any, perhaps even unknown, corner of the world. Thanks to the information (telecommunication) revolution and its rapid development, including network technologies, the world shrank and became communicatively close, accessible, and penetrable to an unprecedented extent. Thus, in the last third of the twentieth century, a fundamentally new level of the global communication coverage was achieved; the objective and dynamic process of the culture uninformatization found in the world contradicts historical experience, which is summarized in the following recognition of the G8 leaders at the Okinawa summit: “Cultural diversity, which is the source of social and economic dynamism, is able to enrich human life in the 21st century, as it promotes creativity and stimulates an innovative approach” to all problems facing mankind

(The communiqué of the G-8 meeting in Okinawa 2000); the formation of the electronic communication virtual space dramatically increases opportunities for the individual socialization, i.e., for directly associating an individual to the global information processes in passive and interactive qualities, regardless of their location” (Bogaturov 1999: 29). High level of social development dynamism determines all-dimensional intensification of labor and diversification of goods and services.

Under these conditions, people who, for various reasons, can influence others as well as groups of people who take responsibility for the production and transfer of knowledge acquire special significance. It is a question of scientific and educational communities. They are responsible for new knowledge production and currently possess up-to-date information in various fields of knowledge. These are the same academic leaders who head the education system as a whole, as well as scientific communities.

2 Literature Review

Western European and American literature review allows us to conclude that academic leadership is understood by most authors as a personal leadership qualities formation technology. Cook (2017) reflects on the leadership in society and justifies the need for special education of the leadership basics in universities.

Supporting this point of view, Buller (2010) writes that in Western European education, it has long ago become mandatory to study the basics of social, economic, and other forms of leadership within the framework of any professional training.

Detsky (2010), Gmelch and Buller (2016), Herth (2010), and Kelly (2010a, b) determine what qualities are obligatory for the leader and how they are developed in the higher education system.

Zimmerman and Thormann (2010) and Peck (2017) emphasize the necessity of dialogue between leaders and followers. These authors differentiate the concepts of leadership and management, but their works suggest that the activities of a leader as a manager will be more effective if there is a direct and reverse link between him and the group. What qualities should the leader have? Smorynski (2010) writes about this. It also concerns gender issues: there are not enough female leaders. Watt (2010) having studied opinions of scientists has made the recommendations how to form the leader in the conditions of universities. Peck (2017) expresses concern over the growing dependence of high school leaders on political trends. Shaw (2017) says that it is necessary to prepare university leaders on purpose, while most of them are scientists who are ready to be a manager.

Ignatyuk and Lastovets (2016) believe that leadership qualities should be an integral part of the higher school graduate’s competence system if he claims professional competitiveness. The study of Duzhak and Manichev (2016), who consider a leader’s personal qualities to be predetermined by the background, is closer to the viewpoint of the authors of this article.

The reflections of such famous Russian scientists as Sadovnichy (2002) and Alferov (2013, 2014, 2015) appeared to be interesting and useful for our study. Sadovnichy (2002) expresses his reasoned point of view that the potential of Russian fundamental science and education is sufficient to form a scientific elite and academic leadership, even on a West European scale.

Alferov (2013, 2014, 2015) believes that the country paying more attention to the development of science will maintain academic leadership.

3 Research Method

The aim of this article is to identify problems of theoretical nature that prevent the Russian universities from acquiring the academic leader position.

The following tasks have been determined:

Firstly, to analyze organization of the scientific and educational environment in the own institutions – the authors' practical activity areas

Secondly, to study the Russian scientists point of view on the modern Russian education transformation processes

Thirdly, to analyze the European universities experience of academic leadership positions

Fourthly, to study the opinion of our colleagues – regional scholars – on the stated topic

The main method of the research is socio-philosophical analysis of the social transformation and restructuring processes in the system of modern Russian education. It is a social and philosophical approach to the study of any problem, including academic leadership, that allows us to identify and formulate the key, basic theoretical positions in relation to the problem of Russian science and education leadership. A systematic approach in the context of socio-philosophical analysis allows us to see the interaction of modern scientific and educational transformations and academic leadership altogether.

Interviewing methods and observations used by the article authors in the educational space of Russian universities made it possible to collect sufficient empirical material. The survey of the colleges – through regional university professors, directly familiar to the authors of the article – was carried out in June 2017. The questions were raised concerning the problems of modern Russian science and education, leadership competencies formation in the educational environment of the university, and technical and technological scientific and educational space improvement. The results of the survey were analyzed and included in this article.

4 Results and Discussion

The leadership problems in modern conditions are relevant everywhere, both in Europe and Russia. In European universities, leadership and personal growth trainings are in demand, and they have long been introduced in the high school program, as well as disciplines that contribute to the graduate's leadership qualities formation.

In today's conditions of globalization and economic modernization, high technologies, interpenetration of cultures, and information society, requirements to the educational level and quality become more stringent in Russia. In the speeches of the Russian President Vladimir Putin, it was repeatedly stated that innovation in all areas of society is the condition for a significant civilizational breakthrough of the country. New living conditions of societies dictate the search for new methods and pedagogical technologies in the education system.

Undoubtedly, innovative methods and technologies in the sphere of education are relevant. Teachers using innovative educational technologies contribute to the development of intellectually developed and highly motivated individuals. It is very important, at the same time, for educational institutions, ministries, and agencies that innovative pedagogical technologies implementation at all levels of education does not become a goal in itself. In practice, there are often exhibition banners representing the educational institution activity, questionnaires for drawing up reports of different nature, conditions of competitions, and teachers' certifications that raise the question of the availability, use, and implementation of any pedagogical innovation, and this is considered an important measure of the education institution activity effectiveness. The introduction and active use of pedagogical innovative technologies in Russian education pursues primarily the goal of the quality training of students. If you look at pedagogical history of our country, you will see that any teacher – if it is a teacher by vocation! – have their individual pedagogical technology of education and upbringing. The experience of such masters is priceless and it cannot be just replicated.

Innovations objectively developing into a category of constantly operating technologies naturally lose the novelty emphasis and turn into a pedagogical activity methodological base. Pedagogy, as one of the most important institutions of human socialization, inherently carries internal dialectics.

Another point is that it is so important to emphasize the mandatory use of innovations in the teacher's work. What matters, in our opinion, is the result of the work – the qualitative preparation of the trainee. The authors of the article have sufficient experience in pedagogical activities in the context of the "school-college-university" and can safely say that many teachers sincerely interested in their work quality, accepting innovations, combine traditional pedagogical approaches with innovative ones using such an individual approach to the organization of the educational space.

Taking into account modern labor market conditions in Russian education modernization strategic areas, the emphasis is placed on the formation of such an important quality as competence. Competence means the ability to think and to

find a solution to a nonstandard problem. Innovative pedagogical technologies should be aimed at teaching adolescents and young people to think, to acquire knowledge integrating it, identifying linkages, building logical chains, and so on. It is not the set of general knowledge that is important but the formation of the student's ability to learn. Following this goal, teacher can use any technology, be it innovational one or not. In the aspect of training specialists able to learn, a special role, in our opinion, is given to the individual teaching approach. Considering that modern knowledge is rapidly updating, the teacher in lectures should provide only main lines of the topic and supporting elements. All the rest the student is to find out independently, using interactive technologies. At the seminars and practical sessions, the teacher organizes discussion with students and corrects their thinking activity, their knowledge, and their evaluation of the information received.

The European system of education provides for allocating a significant part of the total study time for independent student education, independent search for additional knowledge, information on the specialty, etc. Is it possible to implement such a form of education in Russia? – It is possible, if desired. Such a form of study time distribution would be particularly relevant in vocational education. After all, we are talking about the preparation of competitive, competent specialists who can and should solve nonstandard tasks, and, therefore, should be able to improve their knowledge, that is even more relevant in the context of human society globalization.

In connection with the above-expressed thoughts on the importance of students' independent search activity, we should pay attention to the fact that adequate material resources are required to implement such a form of educational activity. Unfortunately, this problem remains relevant for most Russian educational institutions. It is meant that Internet resources in educational institutions should be freely available for both teachers and students. Libraries in educational institutions should have extensive funds and connections with the country's largest libraries in order to obtain necessary monographs and other materials for research works (by the way, such a form of literature exchange between the libraries of the country existed in the Soviet era and was highly in demand). Libraries should be maximally equipped with software tools for office use (computers, reproduction equipment) with Internet access. Lecture audiences also should be maximally provided with multimedia equipment, interactive whiteboards, and computer equipment. This reduces stress on the teacher's vocal cords and provides necessary teaching visibility. Computer classes with adequate software where the teacher can quickly check the level of students' knowledge and give an objective grade should be in sufficient quantity for full support of the educational process. Thus, several tasks are achieved: time for interviewing and summarizing the results on the discipline is saved, while time for discussing new material is increased, interpersonal individual communication between teacher and student is activated, mentoring is formed in the student group, etc. Students can independently check the quality of their knowledge, notice and fill knowledge gaps, and come to the teacher not like "robots" capable only of mechanical taking notes at the lectures but with questions. In our opinion, it is the variant of education which is defined by educators as heuristic or problematic or investigative and research one. Whatever you call it – the result is substantive.

Ensuring the educational process with an uninterruptedly operating information and communication network in modern conditions is not just a good wish but an imperative requirement of the time.

If another direction of the education system development described in the documents of the Bologna process is realized, the resource base of the considered variant of education could be strong and not too expensive. It deals with the continuous and multistage education, although this form of work for Russian education is not new either. Peter the Great also defined (by a special Senate ordinance) that the Academy of Sciences is “an organization with its research laboratories, museums, that unites outstanding scientists, but also has its own university and gymnasium. At the same time academicians should be professors at the university, and university students should be teachers in the gymnasium. Thus, the Senate Regulation of 1724 laid the foundations for fundamental university education” (Alferov 2013). Subsequently, the continuous multistage education system remained underdeveloped in Russia. Many researchers of the Russian school are quite right when they emphasize that a large part of the vocational schools graduates study unmotivated, and as a result they do not work in the sphere of their specialization. And then, through a painstaking process of trial and error, these specialists again enroll in studies relevant to their new life circumstances.

Drawing attention to this aspect of educational environment organization and aiming at Russian society scientific development prospects, it is necessary to emphasize the importance of science and education multifaceted support from the state. It is known that knowledge and science are the products that can give both a momentary and a postponed effect. As a rule, what we are investing in upbringing and education today is manifested in the future. Here, it is appropriate to give an example from the practice of the boarding school № 18 at Moscow State University, where gifted children are recruited from all over the country. However, the abilities of these students are not immediately revealed. Sadovnichy (2002) notices: “Finding a talent is only half the task. It takes three to four years of communication with a person to understand what his abilities are. Sometimes you select a guy as a budding mathematician, and after a couple of years he has a craving for chemistry or physics. You can never guess.” We think that the entire state educational paradigm should be developed and implemented taking into account this long-term impact of education. Educational institutions should be supported by the state regardless of the student’s number. Schools, colleges, and universities should be preserved in hinterland areas, where, among other things, the very people of natural gifts are born, becoming the “golden fund” of science, the true elite of the society. This is the lesson we learn from the historical practice.

Certainly, the presence of a charismatic leader is the most important component of leadership in the academic environment, including that of modern Russia. The leader in the academic environment has a huge responsibility. It should be a person who is a recognized specialist in their field, a reputable scholar, which means that this person is not young, but at the same time, he/she should be an effective manager, since the future of his/her scientific institution and, hence, of Russian science as a whole depends on his/her decisions.

In this country the problem of leadership was problematized primarily in the political sphere. Even in the days of the Soviet Union, the Supreme Party School was successfully functioning, where the leading party and soviet cadres were trained. The entry requirement to this university was the experience of being in a party, such as Komsomol, and journalistic work or manifested organizational skills in the elected party and Soviet bodies. It was a successful experience in organizing the leading staff members' training in the USSR. Unfortunately, in the early 1990s due to the collapse of the Communist Party, these universities were shut down. Of course, this invaluable experience in the leadership training was to be used in full. Today, there is an attempt to revive this system within the academies and universities of management, but this is already a different country with different socioeconomic conditions.

The problem of the academic leader charismatic nature is particularly acute in the context of the modern Russian education and science development. As it was mentioned above, he/she should be a highly qualified specialist in their field of knowledge and at the same time an effective manager capable of turning Russian science into an effective and practical one, and these features do not always go together. This person should find and feel the fine line between scientist and manager; be passionate, energetic, persuasive, persevering, and patient; and clearly understand the development prospects of his/her university and his/her scientific branch. The topicality of the problem is also due to our nature, since our geographic conditions are not simple, and there is always a need for constant control over external circumstances; it is also due to our culture, since the leader, in Russian conditions, should necessarily be "strong," often capable to make tough, sometimes unpopular, decisions, and at the same time he/she should be a charming person, capable of convincing in his rightness.

5 Conclusion

The problem of academic leadership is highly relevant in the modern context. The accelerated dynamics of social development, penetrating globalization processes, and the social spaces integration cause certain unification of the world population's way of life. At the same time, the increasingly complex nature of international socioeconomic and political ties calls for the natural nomination of leaders able to take charge of scientific and educational progress as the basis for civilizational development.

Leadership qualities should be formed within the framework of the professional training of any level, as well as in the conditions of preschool and school education.

At the same time, the formation of leadership qualities and further scientific and educational elite support should be carried out taking into account the background conditioned personality qualities.

Leadership coaches should possess systemic, logical-analytical thinking and comprehensive psychological training to assess the leadership potential of the trainees and direct it properly to stimulate further development.

Scientific and educational space should have constant multifaceted support from the state, since the new knowledge production, education, and upbringing of a person, as a rule, have a remote rather than an immediate effect. Investments in the development of Russian educational space material and technical base, development of the youth research center network, and creation of a multistage interrelated education system, including a professional one, will form the basis for the academic elite formation.

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Emotional Leadership in Organizations: Theoretical and Applied Aspects



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Abstract The article deals with one of the most popular theories of leadership – the theory of emotional leadership by Daniel Goleman. It reveals the essence of the concepts: “emotional intelligence” and “emotional competence”; it indicates the presence of correlation between the level of managers’ emotional intelligence and their businesses performance. The article considers the specific features of emotional leadership of various styles (resonant, dissonant, demagogue, and ignorant). The article is based on the real-world examples, which confirm the fact that in modern organizations leaders can be strongly marked by the representation of one of the abovementioned styles of emotional leadership or have the features of, for example, a resonant, dissonant, and demagogue leader representing a mixed style of emotional leadership. It proves that emotional competence is an important competence for a modern leader. It also describes the dependence of corporate climate on the leader’s behavior and actions. The article as well points to the link between the systematic hostility of the corporate leader and the increase in emotional tension among employees, often resulting in the accumulation of negative emotions and deterioration in the employees’ psychological health, which in turn affect the results of their activities.

1 Introduction

At present, modern organizations face the problem of increasing managers’ competences of perception, recognition, accurate interpretation, and expression of emotions in accordance with the case. As well they have to deal with the problem of

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managers' emotional awareness, squeezing out the emotional component from people's mind, the reduction in the physiological component, and, consequently, the development of emotional intelligence. The fact is that the concepts of the "executive" and "leader" are not identical to each other. Nevertheless it is clear that the manager who supervises employees and their behavior has to possess leader's qualities. Consequently, a leader is not just a person who has authority due to his/her position but a person endowed with certain personal qualities that enable him/her to make an organization viable, to maximize the benefit from each employee, defining single direction for the organization activity, the result of which becomes the achievement of organizational goals.

Emotional intelligence is becoming one of the most topical and the most needed qualities that modern corporate leaders have to possess nowadays. Well-developed emotional intelligence implies the ability to govern both their own and their subordinates' emotions, as it promotes the effective communication inside the organization and sound managerial decisions. These are the characteristics that an efficient manager has to possess.

Thus, the issue chosen for research is vital as the analysis of theoretical and methodological basics of emotional leadership is the foundation for studying their implementation in practical activity.

2 Literature Review

As the theory of behavioral economics advances, more and more scholars today integrate the data of psychological research into economic science. In the twentieth century, new branches of psychology such as emotional psychology, cognitive psychology, and mathematical psychology emerged. In the past scholars offered psychological explanations of individual's behavior. One of the brightest ones is the research by A. Smith "Theory of Moral Senses" (1997).

Today more and more works on psychologically specific features of governance and leadership are published as modern companies need more managers and leaders. A set of qualities essential for leaders to succeed are being sought. These works are at the interface between management and other sciences, for example, cognitive psychology and neurophysiology regarding human brain as a data processing structure. The example is a theory of emotional leadership, which became popular after publication of the paper by Goleman et al. (2008). Goleman is an American psychologist, scientific journalist and writer, and co-chairman of the Consortium for Research on Emotional Intelligence in Organizations carrying out research on emotional intelligence in organizations in the framework of MA program in Professional and Applied Psychology at Rutgers University (USA). His book *Emotional Intelligence* (Goleman 2009) is one of the five most well-known books in Russia written by foreign management and leadership experts according to the journal *Generalni Direktor* (General Director) ranking. Four other most popular works on leadership are papers by the following authors: Jack Welch and Suzy Welch *Winning*

(2007), Ichak Adizes *The Ideal Executive* (2014), Marvin Bower *The Will to Lead* (2017), and Peter Drucker *The Effective Executive* (2012).

In addition, in our article we will use the term “gestalt,” which, in German, literally means “form, type, figure.” This concept emerged in psychology in 1890 when it was introduced by Christian von Ehrenfels (1890), Austrian philosopher. He shared I. Kant’s point of view that it was not typical for a person to apprehend the world directly. A human being receives information about the physical world through his/her sense organs and then processes and refines it in the mind. So, the perception results in the shaping of a holistic picture in the mind, which enlarges it and does not see it as a sum of disintegrated components. Later on this theory of gestalt got a number of followers. The formation of the gestalt approach as an independent branch of psychology is associated with the scientific activity of the scientist M. Wertheimer. His work *Experimental Studies on Motion Vision* was released in (1912). Among other scholars specializing in gestalt approach, we can name a Danish psychologist Edgar Rubin and Soviet psychologist Bluma Zeigarnik.

3 Research Methods

While working on the article, the authors used theoretical methods of cognition. Let us go into particulars of emotional leadership. As stated by Bataeva (2016) following the encyclopedic dictionary, leader is the most competent member of a group who is authorized in it to make decisions in the most important situations and who plays a pivotal part in this decision implementation and securing joint activity and interaction in the team.

Emotion (Latin *emovere* – to excite, agitate) is a psychic process of impulsive regulation of behavior, based on sensory reflection of the needful significance of external influences and their favorability or harmfulness for the life activity of the individual. This is a tool for assessing the interaction between an individual and the environment developed in the process of human evolution. Emotion is mainly intended to motivate people to act. Emotions are always bivalent (positive or negative); they set the organism for appropriate behavior, i.e., determine the selectivity of behavior. Psychologists distinguish between feelings and emotions. Feelings are produced by the motivational system of an individual; the greater the impact the situation has on the motivational system, the stronger the feelings are. Emotions are an interpretation of feelings, our feedback; they predict how close you are to the goal that the system is intended for.

The term “emotional intelligence” became popular among psychologists, which first was introduced in 1990 by Mayer and Salovey (1997). Before that psychologist Reuven Bar-On (1996) proposed the concept of emotional quotient (EQ) by analogy with intelligence quotient (IQ). Earlier, other scholars worked on the issues of emotional literacy, social intelligence, and various aspects of emotional intelligence. But it was Daniel Goleman (1996) who made the largest contribution to the dissemination and popularization of the emotional intelligence research.

Emotional intelligence is defined as “the ability to perceive and express emotions, assimilate emotions and thoughts, understand and explain emotions, regulate their own emotions and the emotions of others” (Sergienko and Vetrova 2009). Peter Salovey singled out five components of emotional intelligence: the awareness of one’s own emotions, emotion management, self-motivation, recognition of others’ emotions, and relationship management (management of other people’s emotions) (Salovey and Mayer 1990). Goleman (1996) considers four components of emotional intelligence: self-awareness, self-management, social awareness, and relationship management. The first two components (self-awareness and self-management) are manifested in personal skills identifying people’s ability to manage themselves. And the second two components of emotional intelligence (social awareness (empathy) and relationship management) – can be witnessed in our ability to manage relationships with other people. The example of personal skills: relying on intuition, analyzing your own emotions, and recognizing their impact on you. The example of relationship management: ability to consider other people’s feelings and active demonstration, your empathy to other people and supportive attitude to their problems, mastering the persuasion tactics, etc. The ability to manage other people’s emotions rests on the ability to manage your own emotions. A leader is thought to have at least one skill in each of the four components of emotional intelligence. Based on this logic, Daniel Goleman (1996) defined the approach to leadership in terms of the ability to influence people’s emotions.

“Emotional leadership” is people management, in the process of which the whole arsenal of skillful emotional influence on people is used. “The leader has always to be able to dominate people’s mood” (Goleman 2009:190). His approach is based on a long-term monitoring of corporate top executives and on analyzing the present and past political leaders. It was revealed that “emotional leaders” in addition to professionalism have the gift of inspiration and the ability to set (create) the mood of the audience/subordinates and maintain a high motivation for the task. A good public speaking skill is an important competence of a leader in an organization, as well as a politician and a preacher. In his opinion, it is important for the leader to possess emotional intelligence; the leader “must have both a heart and a head.”

To date a lot of methods have been developed to assess emotional intelligence. The most popular of them are the following: Multi-factor Emotion Intelligence Test, Mayer–Salovey–Caruso Emotional Intelligence Test, the M. Hall Method, D. Lyusin EmIn Test, and Self-Report Emotional Intelligence Test (SREIT) (Sergienko and Vetrova 2009). The research carried out by foreign scholars confirmed that there is a correlation between IQ with some components of emotional intelligence.

Psychologist and professor of Harvard University David McClelland has established the link between the level of executive’s emotional intelligence and the business performance. After analyzing the career of subdivision executives of a global corporation, he found out that “87% of top-managers with all well-developed components of emotional intelligence were in the top third of those who every year receive the largest bonuses for their business performance. Moreover the divisions they head exceed the target set in the plan for annual earnings growth by an average

of 15–20%” (Goleman 2009: 8). In the USA, it has become common to say that IQ gets you hired, but EQ gets you promoted.

It should be noted that there is a discussion on the theory of emotional intelligence and its scientific character. Emotional intelligence itself is the base for competences on which the leader’s or manager’s success depends. Explaining emotional intelligence, Goleman enumerates and describes skills (see above), while skills are components of the competence. Therefore, in management, it is more expedient to use, in our opinion, the term “emotional competence.”

4 Results and Discussion

4.1 *Psychology of Emotional Leadership*

Goleman (1996) regards leadership from psychological point of view. He views the brain as an open system (limbic system), which is subject to the influence of external sources, in particular the team. The term “limbic system” was first introduced for scientific use in 1952 by American researcher Paul MacLean; it means the set of brain structures, involved in the regulation of internal organs functioning, sleep, wakefulness, emotions, memory, etc. Receiving information about external and internal environment of the human body, the limbic system is responsible for triggering vegetative and somatic reactions that ensure an adequate body adaptation to them. One of the particular functions of the limbic system is the formation of motivations, emotions, behavioral responses in addition to the regulation of the internal organs function, the organization of short-term and long-term memory, the elementary motivational and information communication, etc.

The process of people managing is carried out by influencing the limbic system through establishing contact (it is about exchanging emotions between the leader and other people). The stronger the group’s cohesion, the faster the emotions and information are conveyed that directly affects the company’s performance. Psychologists note that laughter is the fastest way to establish contacts between people and bind their limbic systems. Therefore, they recommend jokes and laughter as an instrument to relieve tension in the team.

Moreover, it is noteworthy that in the prosocial group, in which the team is characterized by a high level of development, the emotional component of power authority becomes the basis for the realization of the leader’s formal authority, as he/she is also the head of the team.

4.2 *Styles of Emotional Leadership and Types of Leaders*

Goleman distinguishes six styles of leadership in contrast to traditional four styles: ambitious, authoritarian (dictatorial), idealistic, teaching, comradely, and democratic.

As for emotional intelligence in management, Goleman identifies four types of leaders: resonant, dissonant, demagogue, and ignorant.

The resonant leader relies on his/her own values and takes other people's feelings and mood into account. He evokes emotional response from members of the team, helps their emotions move in positive direction, and acts as a tuning fork. The stronger the group's cohesion, the faster the emotion is conveyed: "The unity team is a clear signal and minimum noise" (Goleman 2009: 36). Emotions unite people and give birth to their loyalty.

The dissonant leader is not interested in and does not appreciate other people's feelings and cannot correctly interpret emotions in the team. As a rule these leaders do not create a favorable working environment. Some can preach certain values without respecting them. As a result the leader's influence in the team becomes the source of dissonance when instead of being positive it becomes a source of negative emotions. Goleman singles out some types of dissonant leaders: from tyrants to psychopathic manipulators who constantly humiliate people (Goleman 2009). During the crisis, the teams feel threatened, so dissonant leaders can adversely affect the corporate climate and lead to a deterioration in financial performance.

Demagogues, unlike resonant leaders, use destructive negative emotions (usually a mixture of fear and anger). They can be efficient leaders, but they can instill only a short-term enthusiasm. Anger and fear can be used in the period of crisis, but in the long term they exhaust the team and results in emotional burnout. Psychologists note that the group/team can easily be made to hate/fear someone, if the enemy is chosen correctly.

Demagogues are common in politics. Goleman provides Hitler and Pol Pot, leader of the Khmer Rouge movement in Cambodia in 1975–1979, as an example of such leaders.

"Ignorant leaders" try to influence the team while being unaware of its current emotional state. If such a leader tries to trigger a positive response, while the team experiences anxiety and psychological discomfort, all positive signals from such a leader will not be accepted.

The resonant leader directs team's emotions into the positive channel, but the dissonant leader governs without much interest in employees' feelings and can become a source of negative emotions. As a result, the influence of the leader on the team cannot be only unfavorable but even detrimental.

However, the behavior of a leader cannot always be characterized from the point of view of any clearly expressed type of leadership inherent in this person. An example is Steve Jobs, who, when he was a 21-year-old eccentric young man, became one of the founders of Apple Computers. With a superficial glance, the charisma of Steve Jobs can be described as that of a dissonant leader. Indeed,

Ayzekson (2012) writes: “You should remember about wounded feelings of the staff, many of them get broken down, burnt out. Was it so necessary to insult and humiliate the employees? It is doubtful; at least this behavior cannot be forgiven.” However, the dissonant leader is not very sensitive; he is often unable to correctly interpret the emotions of other people, which could not be blamed on Steve Jobs. “He was a very sensitive person, perfectly perceived other people’s emotions, saw their strengths and weaknesses . . . that’s why he so skillfully managed to persuade, flatter, convince and intimidate others” (Ayzekson 2012). Therefore, Steve Jobs cannot be attributed to truly dissonant leaders, since causal links in this type of leadership are as follows: the leader projects a behavior style based on humiliation and constant manipulation, because he/she does not have the ability to understand the feelings of other people and not because his skills of perceiving people’s feelings and emotions are in abundance.

So, in order to define the type of Steve Jobs’ leadership, we should analyze his behavior from the standpoint of the demagogue leader’s worldview. The demagogue can provoke employees’ fear and anger at him/her. “For fear of Jobs and their wish to impress him the employees could outperform themselves” (Ayzekson 2012). Indeed, Steve Jobs actively resorted to the tactic of intimidation, which gave rise to the enthusiasm of his subordinates, characteristic of them in case of such behavior of a demagogue leader, and this enthusiasm according to theoretical postulates had to be of a short duration.

But is the behavior of the demagogue always conducive to the professional growth of employees, as, for example, in the case of the company engineer who managed to improve the function because Steve challenged him? In this regard, despite the obvious features of leader-demagogue in the leadership of Steve Jobs, it is still worth doubting that he can be described as a pure leader-demagogue. “. . . if Jobs saw that his employee realized what he was doing he started to respect him” (Ayzekson 2012). And this is not the behavior of a dissonant leader, or a leader-demagogue, but a resonant leader, capable of creating a team of professionals that produces a unique product.

4.3 Leader and the Climate in the Team

According to scientific research, the corporate climate proves up to “20–30% of differences in labor productivity. Approximately by 50–70% the climate in the organization depends on the actions of one person – its leader” (Goleman 2009: 32).

Therefore, the spirit of benevolence is considered an invaluable resource; some companies assess amicability when they recruit managers. Global corporation research confirms that positive-thinking top managers secure better performance of their teams and vice versa.

Corporate climate can change with the arrival of new managers applying other management styles, since the management style directly affects the climate in the

organization. Moreover, the arrival of diametrically opposite types of leaders/managers into the company can lead to devastating consequences.

Thus, the organizational climate impacts considerably the possibilities of increasing labor productivity and even the quality of products. The lack of benevolence on the managerial part of the company can trigger tensions in the team. The possible consequences of the emotional stress, which has a systematic character, can lead to a decreased speed of task execution, slow professional growth, and inability to achieve the goals. This can happen even to strong, emotionally balanced people. The fact is that often employees of the organization experiencing a regular emotional strain, because they perform in the company the only social role of subordinates, implement the widespread practice of communication with management, namely, silence, without the manifestations of their response in the form of acts of behavior against the emotional pressure of the leader. Such an employees' response does not always cause him/her interpersonal conflict. If the management express their reproof in an ill-natured form, but the employees estimate them as well founded and agreed with the reproof, there is no conflict between the elements of internal structure of the person. What is different about it is that the executive behavior is estimated by employees as unfair. In this case, negative emotions that failed to be expressed accumulate, which over time can develop into a chronic discontent, not only about work but about life as a whole. Consequently, it is not the ability but often simply the lack of opportunity or fear of a sharply negative response from the manager that forces employees to keep their opinions to themselves, which can be harmful for their psychological health as individuals with varying degrees of severity and lead to incomplete gestalt.

Incomplete gestalt is an unfinished action and incomplete situation. If the person is healthy, the unmet need causes an increasing tension and a desire to satisfy this need, which encourages the person to act. A person's action to satisfy the need makes it possible to create new gestalt. However, if natural self-regulation is disrupted for some reason, the gestalt becomes fixed, which allows us to speak about a chronic tension in a person and a lack of ability to recognize and actualize the newly emerging needs. Therefore, incomplete gestalt in the work process can, in fact, significantly adversely affect the psychological state of the performer and lead to emotional exhaustion, deterioration in physical health, and, as a result, a reduction in labor productivity and the worsening in its quality.

4.4 The Case of Enron Corporation

Enron is one of the largest electric power companies in the USA that went bankrupt in 2001. This case is studied in corporate governance courses. General directors, succeeding each other in the company, were models of opposite types of leaders. Kenneth Lay, who served as chairman of the board and CEO of Enron for a long time, created an atmosphere of comradely support in the company (we are a friendly team of like-minded people). He propagated "hands-on" approach in business, under

which the head himself is engaged in the company's control and communicates closely with the heads of both the middle and lower levels. Jeffrey Skilling, who succeeded Kenneth Lay, introduced a "cutthroat culture." The former Enron employee recalls: "At work, everyone was constantly wildly yelling, waving their hands and crushing tables with their fists" (Golubitsky 2016).

The new CEO ruined the corporate spirit: the staff were in constant stress, and whistle-blowing was flourishing. "Everyone stubbed the knives in each other's backs." Employees considered a new system of "achievement assessment" and a system of incentives, which they called rank and yank as a significant manifestation of the new culture. Based on the results of the assessment, "15% of the 'most negligent employees' were fired yearly from Enron" (Golubitsky 2016).

The collapse of the corporation "Enron" is studied as a model of a failure of the entire system of corporate governance and control over financial management fraud. However, even brief excerpts from the financial and economic novel *What Is Your God's Name? The Great Scams of the 20th Century* by Golubitsky (2016), based on the documents and investigations of bankruptcy of the corporation Enron, give an indication to the degree of its corporate culture destruction.

5 Conclusion

In conclusion, we can underline the importance of emotional health, emotional competence, and leaders' emotional literacy in the business world. As Mayer and Salovey (1997) think, the raising of emotional intelligence does not seem possible, since it is more or less stable ability. However, we can speak about the increasing of emotional competence through strengthening individual skills. A psychological training in the development of emotional intelligence as well leadership courses can play a certain role; these courses are now abundant in the Russian market of services. As an effective method of forming emotional intelligence, including among managers, professor of Moscow State University Pankratova A.A. offers the actor-director training (Pankratova 2010).

In the spring of 2016, the "Museum of Emotion" was opened in St. Petersburg, the organizers of which, in addition to expositions, offer to visitors a training course in managing their emotions and related face expressions. The establishing of this museum, in our opinion, indicates the great interest in emotional intelligence and emotion-managing skills outside the expert community.

This article left for further disclosure the issues of the constituent components of emotional competence and the skills in which it manifests itself; we have not discussed the leaders' survival in the situation of transformation, rules for their self-organization, as well as problems of authority exertion in terms of emotional leadership, etc. In the situation of constant changes in the business environment, the demand for new competencies of leaders is increasing. In this regard, the improvement of the skills of emotional competence and the application of resonant styles of leadership will secure the best results.

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Leadership and Moral Authority in the “Vostochnichestvo” of E. E. Ukhtomsky and the Philosophical Systems of Buddhism and Confucianism



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Abstract Leadership as a scientific problem has received a wide coverage in scientific researches; however, the interdependence of the leadership and the moral authority needs further development. The idea of the possibility to attract as representatives of other cultures and the Eastern States in general only through the persuasion and the moral authority was presented in the arguments of E.E. Ukhtomsky. Moral aspects play a determinant role in the organization of the social system as in Buddhism and Confucianism. That's why Ukhtomsky's ideas of “vostochnichestvo” with a total apparent idealization of them actually had a real basis. Eastern value systems suggest the possibility of the leadership through the achievement of the moral authority. That is, the moral authority allows you to not only avoid conflicts, especially at the household level, but also to win the sympathy and respect in interstate and intercultural relationships. Therefore, it is necessary to pay attention to these problems in the education of youth in the modern Russian society and state propaganda.

1 Introduction

Today the issue of leadership continues to be the center of attention of researchers, politicians, and leaders. Various aspects associated with the phenomenon of the leadership have been developed in sufficient detail. A variety of classifications and factors determining the formation and manifestation of the leadership were suggested. However, not all issues associated with the leadership are fully understood or have the same evaluation, including the interdependence of the leadership and the moral personality traits that determine moral authority, which remain unexplored. The concept of “authority” comes from the Latin word for “influence”

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or “power.” The authority is one of the motives of the legitimate subordination and recognition of a leader or an authority. The authority includes highly appreciated qualities conferred upon the leaders and which determine the obedience of subordinates without the persuasion or threats of punishment. It is based on agreement and means respect to the governing human or institution and confidence in them.

The moral authority plays a special importance in traditional societies, although its role remains important also in the modern world. In this regard, this principle does not lose its relevance but also becoming increasingly important in modern Russia, which includes many Eastern Nations, and most of the border is with the Eastern States. The moral authority plays a role both at the micro level in small social groups and macro level in the management of large corporations and the government. The decision-making process becomes more complicated with the complexity and consolidation of social organization or a system, because the quality of accepted decisions acquires vital importance. In this regard, those people who make decisions must have the correct motivation and correct state of consciousness together with competence.

2 Literature Review

The leadership as a scientific problem has received a wide coverage in scientific researches; however, the interdependence of the leadership and the moral authority needs further development. The role of the moral authority is covered by various authors in different contexts (Laggatov 1991; Kamolov 2012; Tyler and Kerstetter 1994; McCormick 1996; Hall 1997; Nickel 2001; Lawson 2001; Rohozha 2008). Ukhtomsky’s “vostochnichestvo” (1892, 1900a, b) views, his understanding of the role of the moral authority, were covered in the works of Schimmelpenninck (2001, 2010), Laruelle (2008), De Meaux (2010), Lim (2013), and Suvorov (2012). Ukhtomsky’s “vostochnichestvo” (1892, 1900a, b) was at the intersection of two traditions in social thought – defending the ideas of the originality of the Russian way of development, coming from the Slavophiles, and the idea of the Eastern nature of Russian people, culture, and statehood, manifested in some degree in various thinkers’ works (Suvorov 2012).

The ethical side of the philosophy of Confucianism is also presented in a number of Russian and foreign researchers works (Lee and Ruhe 1999; Juergensmeyer 2005; Lizhu and Na 2015; Yong 2012; Qingsong and Kwong-loi 2007; Vasiliev 2006; Filatov 2008; Fakhrudinova 2014). In the Confucian ethical system, the moral questions concerning the relationship between the management and the government received detailed development. Confucius for the first time in the history of China set a goal to transform people, to transform their values. The philosophy of Confucius does not lose its relevance and allows us to identify the relationship of ethics and morality with the modern globalizing world, including the question of the interdependence of leadership and moral authority (Fakhrudinova 2014).

3 Research Methods

Comparative analysis of values in Eastern philosophical and belief system “vostochnichestvo” allows to define a special value of moral principles in the formation of authority and leadership positions.

Retrospective analysis allows to trace the specificity of the relation to moral principles and attempts to substantiate their importance in national and cultural relations and foreign policy in Ukhtomsky’s (1892, 1900a, b) arguments about “vostochnichestvo.”

4 Results and Discussion

It should be noted that this issue was raised in the Russian social thought in the late nineteenth century in the period of activation of the Eastern policy in Russia, though without reference to the category of “leadership.” Esper Ukhtomsky (1892), a confidant of Emperor Nicholas II, writer, diplomat, collector, and prince, became a significant figure in the understanding of “vostochnost” in Russia. The prince considered that Russia in its cultural and historical features was closer to the Eastern countries than to the Western, and her future was in the East (Ukhtomsky 1900a, b).

The Russification of the Eastern suburbs and arising difficulty in connection with this was one of the problems, which involved the prince on duty. Ukhtomsky (1892) focuses on the methods of the baptism of the infidels, the moral character of the missionaries, and the Russian church in general in his report on the missionary activities. The prince gives many examples of how the appeal to the Orthodox faith took place. For example: “. . . Force to be baptized a lot and in case of disagreement make a mockery of in different ways – cut braids, etc. which lead people . . . in a big disorder. They baptize also in such way that catch up the Buryat and watering him with wine to unconsciousness, baptize, and he slept forgets that he was baptized. . .” (Ukhtomsky 1892: 25). Ukhtomsky also focuses on the preachers’ moral qualities and realization of duty, which have already become rare: “the majority . . . is extremely ignorant, fiercely looking at the pagans, rude in contact with them and is deprived the slightest tact” (Ukhtomsky 1892: 34–35). As a result, instead of the conversion to Christianity, the local population either continued to adhere to the traditional beliefs or converted to Buddhism which has been already widespread by the end of the nineteenth century. As Ukhtomsky noted, in a very short period of time, the “Indian-Tibetan religion radically reinvented thousands of shamans exactly in the same time as energetic English missionaries rich in knowledge and material resources worked in Transbaikalia region, when Speransky, auditing Eastern Siberia, designed the methods of the pagans conversion” (Ukhtomsky 1892: 11).

The prince emphasized that the popularity of Buddhism and its rapid spread were associated with the authority of its bearers among the pagan population: “the First adherents of Buddhism in Transbaikalia region appeared among foreigners as more

or less skilled doctors. This glory has been inherent to the Lamstvo since ancient times. Being free of charge it began to treat the poor, to help the people of its itinerant pharmacy... Suffice it to notice that the Orientalists look very favorably on its practical results, and both pagans and Orthodox Christians appeal to it for help” (Ukhtomsky 1892: 9), including missionaries. Ukhtomsky wrote: “Delving into the original Lamaist culture, you see that it is strong among the Buryats and why it cheerfully stands the onslaught from civilization coming to us in the wilderness” (Ukhtomsky 1892: 40). This civilization still remains too colorless and impersonal, to “make revolution in the beliefs of aboriginal population, rather drops itself in its eyes than impresses by it, and thus gives the reason to assume that it is below the local one – that which exists millennium, the road across Asia, even gaining the sympathy of Europe” (Ukhtomsky 1892: 40).

This example is largely illustrative in terms of establishing influence in the traditional society in the dialogue of cultures and interethnic relations. Ukhtomsky (1892) fairly notes that, for the successful preaching of Christianity at Lamaist, it is necessary to know not only the national culture and Buddhist teachings but also to have the necessary moral character to inspire trust and respect in representatives of other cultures, to gain moral authority. The prince also carried this principle on the foreign Russian politics. The authority of the Russian government based on the monarchy had to play the main role in the extension of influence and the domination of Russia in Asia exclusively in a peaceful way. “Autocracy” and religious honoring of the king, carrying not only a political but also a spiritual sense, were represented by Ukhtomsky (1892) as source of deep relationship and the key factor that ensured the authority of Russia in the eyes of the Eastern peoples.

Ukhtomsky (1892) condemned sharply the military involvement of Russia in the suppression of the uprising of the Yihetuans. Russia’s actions, as noted by Ukhtomsky (1892), caused considerable damage to its credibility in China.

If we turn to the ethics of Buddhism and Confucianism, which defined the ideology and norms of behavior and moral principles of the Chinese and neighboring societies at different times, we can see the special role of moral authority in the management and organization of relations in the Eastern social systems.

In Buddhism, within the traditions of Buddhist schools or sects, the correctness or incorrectness of the committed actions depends on the state of consciousness in which they occur, and the moral criterion is psychological. This criterion is defining and has universal applicability. Morality, according to Buddhism, is as much an issue of intelligence and insight and how it is connected with good intentions and good feelings (Sangharakshita 2012: 178). The moral life is the accomplishment of actions based on the best that is in us, which means that it is the actions that are defined by our deepest understanding and insight, a comprehensive and all-inclusive love and compassion (Sangharakshita 2012: 178–179). In accordance with it, the fulfillment of these installations that are highly prized qualities allows achieving the moral authority and respect, and as a result such person acquires the features of a moral leader and the appropriate authority.

In the ethico-philosophical system of Confucianism, a human should be an unselfish fighter for justice, constantly improve spiritually, and be ready to sacrifice

everything for the sake of higher ideals. According to Confucius, the principle of universal responsibility plays a big role in society. It acquires the features of family relations, in which the elders are responsible for the younger, and the younger obey them. Personal development must follow the path which will bring the greatest benefit to society. Every member of the society should contribute to the prosperity of society by means of his life and his work. The achievement of a harmonious society by the state is the highest goal of every citizen. In short, the individual and society are interrelated and complementary: the spiritual growth of each individual contributes to the improvement of society as a whole. The individual and society are connected by an important and compulsory principle of responsibility for one another.

Confucius considered that internal barriers that do not allow a human to violate ethical norms and commit immoral acts are much more important than legal rules and laws. This is the beginning of an ethical dominant element in Confucianism: morality and moral norms come out to be the only source of the harmonious functioning of the state government based on humanity (“Ren-Zheng”).

“The Noble Man (Jun-Zi),” as the ideal of personality in the ethical-philosophical system of Confucianism, must have two main virtues: humanity and sense of duty. Every human, especially one who takes the state post, must meet the highest moral standards, follow the ritual, and serve as a role model.

In a broad meaning, the ritual includes the synthesis of public morality and social practice; in a narrower but more precise meaning, it means socially acceptable norms of behavior. The Master said: “Being human means to win yourself and appeal to the ritual. . . . Don’t look at that is alien to the ritual, do not listen to that is alien to the ritual, don’t say that is alien to the ritual, don’t do anything that is alien to the ritual” (Confucius 2000: 74). According to Confucius, the ritual is implied to be a system of traditional and time-tested social links, which can be successfully applied in modern conditions. These relationships are appealed to perform a limiting and regulative functions in society. The great philosopher says: “If rule by law, settle, punish, the people will beware, but will not know shame. If rule on the basis of virtue, settling by the ritual, people will not only be ashamed, but will express humility” (Confucius 1995: 55). The concept of the ritual, interpreted according to the conditions of modernity, can also have a positive effect on the construction of qualitatively different behavioral strategies of identity in a global society. The approval of the new social order does not mean a complete rejection of the traditions.

The concept of “ritual” is very difficult and multifaceted in the Confucian doctrine. But, nevertheless, there are certain norms of behavior, which should be adopted by everyone. They are benevolence, sincerity, debt, devotion, sons of piety, and care for the young. The moral and ethical Confucian doctrine, which later turned into a powerful sociopolitical doctrine, was based exactly on these virtues.

V. A. Vassiliev notes, ““Li” comes out to be a set of rules of the common being, the mastery of which allows a human to act morally in different life situations, to avoid all sorts of collisions and quarrels with dignity” (Vasiliev 2006: 132–146). The ritual is performed by every human because of the need for mutual respect and trust. So, in everyday life, respect for others manifests in the form of polite spoken requests

or apologies, facial expressions, and gestures. However, it is not easy to embody even the most basic standards of behavior. Even if you explain in details to the human how to act, you should not expect that he or she will change immediately.

Confucius considered humanness (“Ren”) the basic principle of a harmonious relationship between people. The Master said: “Humanity is the love to people,” and “Knowledge is the knowledge of people” (Confucius 2000: 80). Humanity is the moral basis on which it is possible to strengthen both the family and the state. It is the main spiritual basis of society as a whole. The concept of “humanity” included a number of virtues: self-control, intelligence, modesty, kindness, fairness, and impartiality.

According to Confucius, it is the humanity that is the criterion which distinguishes the “noble man”: not an official post, not upbringing, not even education, but humanity reveals the true nature of the individual. The Master said: “Noble origin and wealth are what people strive for; if they are acquired dishonestly, a noble man refuses them. Poverty and humiliation are what is hated by people. If they are undeserved, a noble man does not shun them. How can a noble man achieve name, if he rejects humanity? A noble man will not part with humanity even during the meal. He is always with it when is in a hurry, and always with it when is in danger” (Confucius 2000: 31). It should be noted that the installation to overcome egoistic values is especially important in today’s society, where each person is responsible for another for the sake of collective survival.

Confucian understanding of humanity is revealed in the context of another key concept of his ethics – “Yi,” which means “duty.” The concept of duty in Confucianism performs the function of moral standard for the assessment of rituals, supporting traditions. Duty is a moral obligation which people owing to their virtues and moral values impose on themselves. The moral duty is dictated by the inner conviction that you should do exactly that and nothing else. The duty resists to the material gain. The Master said: “The noble man thinks about the duty, low person cares about profits” (Confucius 1995: 101).

Ethical orientation to duty is highly relevant to the individual, existing in the context of modern society (Fakhrudinova 2014: 147). Everyone should be well aware of the existing problems and try to solve them on the basis of rational principles, but not emotional ones, which further contribute to the reconstruction of macroethics and, consequently, global philosophy. According to Confucius, the humanity and duty, provided their joint application to the modeling of the behavior of the modern person, will allow to overcome a number of difficulties and problems, especially in the space of the relationship of human and environment (Fakhrudinova 2014).

The humanity and duty cannot be separated from each other in the philosophy of Confucius. It is the synthesis of these virtues enables a human to become a “noble man.” The Confucian idea of “humanity–duty” implies concentration of common efforts of all sectors of society on the basis of maintaining the tradition: everyone, whatever place in the social hierarchy he may hold, must faithfully discharge his public duty. V.V. Filatov writes on this occasion the following: “The meaning of life according to the teachings of Confucius is contained in the “proper life,” in carrying

out their personal duty on complicity in the common service tradition, and social significance of each individual life is determined by the extent of this complicity. The Confucian idea that every man was originally based on the idea of the good, the conformity to the tradition, was the condition of the possibility of the realization of this meaning (Filatov 2008: 70).

According to the ancient Chinese thinker, the knowledge of measure and, therefore, the pursuit of harmony are no less important virtues in a noble person. The animal, seeing food, strives to swallow as much as possible, but the human should be characterized by a sense of proportion, or as it was called by Confucius “Golden middle.” However, according to the philosopher, people have long lost this supreme principle, which is based on the religion of common sense and reasonableness.

According to the ethico-philosophical doctrine of Confucianism, the harmony is the universal path that must be followed under any circumstances. This implies moderateness in all things: in the emotions and desires, the rejection of contradictory actions, that is, the realization of the “Golden middle” principle. This is the only way to keep peace and avoid violence. Harmony, however, does not exclude differences. Thus, modern society needs harmony of complementary differences (“harmony through difference”) for the universal prosperity. Therefore, the Confucian model of the global world excludes the dominance of any state (or the group of states). Marietta T. Stepanyants notes: “Global peace should preserve cultural diversity and respect the right of every nation to act in accordance with their own cultural ideals and values” (Stepanyants 2009: 43).

The problem of human nature takes a significant place in the Confucian philosophy. The Chinese wise man suggests that man is good by nature, and his nature also leads to the goodness. But why does he commit evil and immoral acts? In wise man’s opinion, this is because the individual loses moral qualities under the pernicious influence of society. Therefore, the virtues of a human must be strengthened, in line with the practice of spiritual self-development and adherence to the ritual.

In the Confucian doctrine, “five constants” (“U Chan”) are inherent in the human nature, expressed in five basic categories of Confucian ethics: humanity (“Ren”), duty (“Yi”), ritual (“Li”), wisdom (“Zhi”), and sincerity (“Sin”) (Confucianism in China 1982: 57). These moral rules are absolute and unchangeable, but they are manifested in different ways in various situations: in the relation between the sovereign and subject, humanity is manifested as mercy (“De”) or as devotion (“Zhong”). The sons of piety (“Xiao”), which are the basis of family relations between generations, are considered to be a very significant form of manifestation of humanity in China. This is significant for Confucianism considering the family as the prototype of the whole state.

So, the problem of spiritual education of man and social and ethical issues of formation of the ideal personality – “noble man” – are the key problems of Confucian doctrine. Vassiliev (2006) writes that Confucius reminded about the necessity to adhere to traditions and rituals that were characteristic of their ancestors and which should be rooted in a sincere love and reverence to the country’s past. The moral and spiritual values that can unite people, families, and the state as a whole come from the traditions.

In Confucian philosophy, the human is not the individual isolated from society but the individual associated with all natural, ancestral, and public relations. “The noble man” (“Jun-Zi”) is the speculative social ideal that is the embodiment of various virtues and is intended as a didactic model for others in the axiological dimension of ethico-philosophical system of Confucianism. The Master said: “Noble man thinks about morality; low man thinks about how to settle better. Noble man thinks about how not to violate the laws; low person thinks about how to get benefit” (Confucius 2000: 101).

5 Conclusion

Thus, on the basis of theoretical reflection, it can be argued that the idea of the possibility to attract as representatives of other cultures and the Eastern States in general only through persuasion and moral authority was presented in the reasoning of Ukhtomsky (1892, 1900a, b). Both in Buddhism and Confucianism, moral aspects play a determinant role in the organization of the social system, so Ukhtomsky’s (1892, 1900a, b) ideas of “vostochnichestvo” with a total apparent idealization of reality actually have a real basis. Eastern value systems suggest the possibility of leadership through the achievement of moral authority. Modern civilization often negates moral values, replacing them with personal interest. In modern reality, and in the past century, an important role belonged to political, economic, and territorial factors in the context of which the discussion about morality seems to be very naive. Therefore, qualitatively different ethical attitudes that meet the requirements of the new era, the origins of which date back to social and philosophical doctrine of classical Confucianism, are necessary. The consideration of cognitive and moral abilities of the human like mutually determining each other is topical in the modern social reality. That is, the moral authority allows to not only avoid conflicts, especially at the household level, but also to win the sympathy and respect in interstate and intercultural relationships. Therefore, it is necessary to pay attention to these problems in the education of youth in the modern Russian society and state propaganda.

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The Language of Leadership: Analyzing Public Speeches of Presidents (Literature Review)



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Abstract The present review is an investigation of the ways in which public addresses of outstanding country leaders are analyzed by modern Russian and English-speaking linguists. Our analysis covers the time period between 2012 and 2017 and includes the review of scientific publications from peer-reviewed linguistic journals which have public speeches of presidents as their core subject of study. For our search we use such widely acknowledged online databases as Google Scholar, Web of Science, and e-library. An attempt is made to identify the major trends and key issues in these latest publications, followed by proposing suggestions for further international comparative research in this field. As we demonstrate in this review, political discourse and, specifically, the language of public addresses of American and Russian presidents have been thoroughly analyzed on multiple levels and according to different criteria over the last half-decade, but further analysis in this field still remains extremely relevant. Our paper contributes to the body of knowledge on this topic in two ways. Firstly, the literature is reviewed in order to provide an overview of the key characteristics in the public addresses of outstanding world politicians that scholars choose to analyze, as well as the levels of analysis (we divide all publications into four major streams). Secondly, possible future directions of research are identified in order to stimulate progress in this important area of study.

1 Introduction

Therefore, the present review focuses on the latest linguistic studies of the language material provided by public speeches of the most outstanding presidents in Russia and the USA. We selected this particular topic because these two countries have been confronting on the world political arena for many years and their presidents

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never fail to attract the undivided attention of the world with their eloquent speeches. Our key interest is to classify and structure the plethora of research findings published by scholars on the topic in the last half-decade (2012–2017), which brings forward the following research questions:

Research question 1: What central characteristics of the public speeches of presidents have mostly become the targets for linguistic analysis between 2012 and 2017?

Research question 2: What directions for future research on the topic can be identified in light of the findings made in previous studies?

In addressing these questions, the present review contributes to the body of knowledge on this topic in two ways. Firstly, we review the work of other authors by focusing on the studies of language of American and Russian presidents in the chosen period and offer our own classification of the main latest trends of research in this field. Secondly, we suggest possible future avenues of research that might offer a more holistic account of the language criteria used for political discourse analysis.

2 Political Discourse: Presidential Speeches as a Target for Linguistic Analysis

Political linguistics is a relatively new area of study that emerged in the latest decades at the intersection of such human sciences as linguistics, politology, sociology, psychology, and a few others. The key subject of study of political linguistics is political communication and its components. The underlying feature of political communication is political discourse, defined differently by many scholars due to its complexity.

In the present review, we choose T. Van Dijk's definition of political discourse and therefore address it as a combination of genres limited by the social sphere of politics: government discussions, parliamentary debates, political party programs, public speeches of politicians, etc. (Van Dijk 2008). The literature on the topic is abundant, which is hardly surprising, yet quite challenging for scientists choosing the language of politics as the object of their research.

The linguistic approach to analyzing this language material is of great interest to all the aforementioned spheres of study, as it offers objective results in case of applying quantitative methods of analysis and provides clear answers to the questions of how exactly the phenomenon of leadership is constructed verbally.

Using the work of previous authors on this topic as a platform, we attempt to create a classification of language criteria employed by modern linguists for their analysis of political discourse.

3 Methods and Review Approach

In our review we focused on peer-reviewed academic articles in both English-speaking and Russian journals from the following sources: Google Scholar, Web of Science, and e-library. This approach is feasible because it improves replicability and transparency. The date of publication was restricted to 2012–2017. Although such restriction of the analysis may fail to provide statistical representativeness (which was not our objective), it nevertheless enables a thorough and systematic review as it offers an adequate insight into the most important aspects of the political discourse analysis.

In the search, the following keywords were used as criteria for inclusion: “political*” and “discourse*,” which were run for matches with the terms “president*,” “speech*,” and “analysis*” (the same search was repeated in Russian with the following keywords: “политический*,” “дискурс*,” “анализ речи*,” “президент*”). These primary keywords were intentionally broad in order to cover as many articles in our first search and produced a plethora of articles that were less relevant to our study.

The first search yielded roughly 19,000 articles in English and 11,000 articles in Russian (as of 24 June 2017). We had to specify the criteria and eliminated the articles in the social sciences that did not focus on language analysis, and non-reviewed journals, still leaving about 7000 relevant items in total. As we were looking for the dominant modern trends in political discourse research and not for statistical precision, we decided to limit our scope to the first 500 publications in each language ranked as the most cited sources. We checked the titles and the abstracts looking for the names of American and Russian presidents (these could not be summarized as a search keyword or key phrase). This approach resulted in 48 relevant articles (27 articles in English and 21 articles in Russian). All these articles were scan-read and analyzed according to different criteria which we generated deductively and classified into four streams.

4 Results and Discussion

Having studied the selected articles published by English-speaking and Russian-speaking scholars on the topic of presidential language, we found that all literature in question published within the time period of 2012–2017 could be roughly divided into four following major streams depending on the primary focus of the analysis (authors’ classification). Stream One mainly targets language portraits of certain political leaders and the components of their public image. Stream Two concentrates on different genres of presidential address, oral or written. The articles in Stream Three dwell on manipulation techniques and rhetoric patterns of politicians. Stream Four covers linguistic and stylistic peculiarities of presidential language. Further, we shall present these streams in detail.

4.1 *Stream One*

The first stream of articles we classified under the subtitle “Personas.” The publications in this group within the analyzed scope of literature are not so numerous and include four English and two Russian papers dedicated to the construction of “language portraits” of certain country leaders (Mizsei-Ward 2012; Schonhardt-Bailey et al. 2012; Wingfield and Feagin 2012; Hernández-Guerra 2013; Kubyschkina 2012; Gavrilova 2013). Three of these articles discuss the ways of creating the public personal image of the former American President Barack Obama (Mizsei-Ward 2012; Wingfield and Feagin 2012; Hernández-Guerra 2013); one paper dwells on Ronald Reagan’s presidency (Schonhardt-Bailey et al. 2012). Out of two Russian articles, the first one analyzes the language portrait of George Bush, Jr., while the other one presents a comparative study of the rhetoric techniques of two Russian presidents, Boris Yeltsin and Vladimir Putin (Gavrilova 2013).

4.2 *Stream Two*

The articles in the second group can be summarized by the subtitle “Genres.” This stream targets certain genres of presidential address to the citizens of the country, which can be either oral or written. These two subdivisions may be classified further into “preelection speeches,” “inaugural speeches,” “primary debates,” “presence in mass media,” “presence in social media,” etc. The selection of articles in Stream Two contains eight published papers in English and only one Russian paper. Following the trends of time, the subgenre “social media presence” proves to be the most analyzed category, covering the presence of American presidents on such popular social media platforms as Facebook, Twitter, and YouTube (Blitvich 2012; Volders and Milan 2013; Jeon and Mauney 2014). Television debates of American candidates running for presidency are also a good source of language material, as two extensive studies conducted by English-speaking scholars are dedicated to this subgenre (Cienki and Giansante 2014; Mascaro and Goggins 2015). The only Russian article in this group dwells on the presence of Russian presidents in mass media (Kluyev 2016).

4.3 *Stream Three*

The third stream of articles is by far the most extensive in our selection. This group can be entitled “Manipulation techniques and rhetoric patterns,” and this subdivision seems to be of major importance to researchers as it offers practical and definite answers to the question of “What exactly makes this leader so good at convincing people?”. According to our results, there are nine English articles and ten Russian

articles that can be Bocharova classified into this category. Most of these papers also concentrate on specific linguistic features that comprise the techniques and patterns of interest, so they can be cross-classified into Stream Four (Bocharova 2013).

Manipulative argumentation techniques employed by political leaders in their public addresses are reviewed quite often by both English and Russian-speaking authors (Bocharova 2013; Mishchuk 2013; Shakhova 2013; Avetisyan 2015, etc.). Other rhetoric techniques aimed at particular goals of the speaker (e.g., political trolling, evaluative techniques, running-for-president rhetoric) were the primary target of four articles (Dilliplane 2012; Burroughs 2013; Gavrilova 2013; Cap 2015). A more conceptual approach was employed by the authors who chose to analyze rhetoric techniques of politicians through the prism of their behavior in conflicts (Maisel 2012; Ryadovaya 2013), revealing the ideological views and values (Sim et al. 2013; Sowińska 2013), verbalization of integration strategy (Atman 2012), or even through constructing a verbal political image of the countries run by certain presidents (Goloborodko and Serikov 2015).

4.4 *Stream Four*

The fourth category of articles is presented by 17 papers, 8 in English and 11 in Russian. This group is of special interest for us as it dwells on linguistic features and stylistic peculiarities of presidential language.

An obvious discrepancy of the core objects of study is observed when we compare the search results in two languages. The English-speaking authors tend to choose a major and urgent social/political concept or the image of a certain politician as their focal point and then use linguistic or stylistic analysis as a means of presenting how this concept is constructed, e.g., terrorism rhetoric under the Bush administration may be analyzed by means of discourse analysis (Bartolucci 2012), deception in political discourse may be revealed through linguistic style matching of the political speeches (Booker 2012), and construed meaning in political discourse may be examined with the help of a case study based on analyzing metaphoric use (Shepard 2013). We noticed that pure linguistic analysis is rarely used on its own without a major concept to support, unless the authors are of Russian descent – in this case, even articles written in English seem to focus more on proving some linguistic hypothesis, quite often in comparative cross-cultural vein, e.g., analyzing the linguistic peculiarities of modern political discourse in the USA and Russia (Davletbaeva et al. 2016). The only exception to that in our selection of papers is a study dedicated to unknown agents in translated political discourse (Schäffner 2012).

Russian authors, on the contrary, seem to favor a deeper and more thorough approach to analyzing linguistic material and quite often make it their core issue of study, e.g., stylistic or lexical features of political discourse (Mitina and Falileev 2012; Popova and Taratynova 2012; Chudinov 2012), verbal representation of

aggression in political speeches (Kaufova 2015), compliments as a speech strategy (Drygina 2013), cognitive structure of the concept “power” (Chironova 2013), etc.

Many articles have targeted a specific stylistic device of metaphor and metaphoric use in political discourse, sometimes giving detailed classifications of metaphors employed by politicians in their public addresses to convey some ideas through transferred meaning (Kubyshkina 2012; Charteris-Black 2013; Kerimov 2014). Verbal irony and humor in politics have also been analyzed extensively through the use of tropes and canned jokes (Shilikhina 2013; Pechenkina and Vasilyeva 2014). Some papers dwelled on the use of phraseology by popular world leaders (e.g., Sedykh 2012). One Russian article in the drawn scope had intentions of the politician revealed by language means as its target (Manaenko and Manaenko 2013).

The initial selection of publications from all the four streams we suggested can also be reclassified according to the methods employed for analyzing the language data. The majority of researchers in the 48 publications we analyzed depending on their aims used the combination of qualitative and quantitative methods, subjecting the language material to discourse analysis, content analysis, intent analysis (analyzing the intentions of the speaker), and to a wide range of variations of linguistic and stylistic analysis.

5 Conclusion

This review has shown that previous research on the topic, even presented through our search limitations, can be summarized in two main trends. The English-speaking researchers focused predominantly on urgent and relevant sociopolitical issues that were analyzed with through the prism of collected linguistic material, thus applying pragmatic approach. Russian linguists provided a more thorough language analysis, and their approach can be characterized as more theoretical.

Based on this observation, we believe that political linguistics could benefit from further Russian publications with a more generalized view of political discourse and putting major sociopolitical events of the country into spotlight. At the same time, English-speaking linguists could make use of the language analysis methods so thoroughly examined and developed by Russian scholars. More cross-cultural comparative and contrasting studies would also be of great interest to political linguists worldwide, as a palpable lack of such publications is observed at the moment. Therefore, we are convinced that it is essential for researchers interested in the language of politics to contribute further to the current understanding of how leadership in politics is made to happen, as this topic seems inexhaustible and always relevant.

Like any review, our own analysis had its limitations. One of these is the comparatively small amount of quantitative work included in this review. We suggest that future research should use quantitative methods more often to offer testable and more generalizable results. Moreover, mutual interdependencies within the four main objects of analysis in political discourse literature (personal image of

the presidents, their rhetoric techniques, the genres of public political address, and the linguistic features of political language) should be scrutinized further.

Excluding some articles from our initial search and limiting it to a certain period and particular criteria may have resulted in an entirely subjective outcome. Thus, enlarging the search scope in further studies of the topic might bring more generalized results. Nevertheless, we believe that our review of the academic publications dedicated to linguistic analysis of the speech of outstanding politicians of our time has provided fertile ground for future research.

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Leadership Change in Change Leadership



Marina Belogash and Marina Melnichuk

Abstract Due to the increased influence of knowledge on society, higher educational universities seek to transform through new leadership paradigms drawing on the learning, teaching, and research undertakings across all segments of academic communities. The paper concentrates on the necessity to shift the leadership focus from top-down to down-to-top propagation of leadership initiatives. The authors give weight to educational agents for leadership impact and emphasize university teachers' capacity to transform fundamental knowledge into practical knowledge and then apply it to create new knowledge. The authors provide empirical insights into the ways of enhancing research activity through leadership transformations in the Financial University under the Government of the Russian Federation. The paper suggests a new perspective on change leadership initiation and invites further research on its tangible embodiment.

1 Introduction

Higher education institutions that follow the trends affecting global and national learning environments can help create the basis for educational progress and promote social and economic prosperity. Although Russian universities have seen broad-based progress for the last decade, moving the academic society to the next level of teaching and researching achievements will require universities to pinpoint the global forces that drive the educational progress as well as connect the dots between keeping knowledge, researching for new knowledge, disseminating it to society, and meeting the society's social and economic needs for employment. Since knowledge has become the major factor in providing nations with a comparative advantage, as well as promoting growth and liberalization, it is vital for universities

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to accommodate new possibilities and unlock their path-breaking capacity in creating new socioeconomic, political, and cultural standards (Brennan et al. 2004). As all other resources of economic growth have been discarded in favor of knowledge, individual prosperity and social mobility have become highly leveraged by knowledge and education (Faust 2010; Chigisheva 2015a, b).

Since change has encompassed universities over the last three decades (Bolden et al. 2009), it is anything but simple for universities today to strike the uneasy compromise between preserving their status quo and undertaking innovative change (Swanson and Creed 2014). Should students and staff be striving for pure science (Stensaker et al. 2017) or be confined to meeting the economic needs for a skilled labor force? There is a trade-off for modern universities to make between merely fitting to the existing economic reality and transferring the nation's intellectual resources into its most efficient transformational force. Since universities are implicitly empowered to transform society, they present a power capacity that needs a fair balance between transforming and being transformed (Brennan et al. 2004).

The increased pressure to address these issues requires Russian universities to rethink the concept of educational leadership, as it is the most effective change force. The availability of accomplished and viable leaders capable of transformative work is crucial for universities because no innovation occurs all by itself and any change needs an ingenious leader (Scott et al. 2008).

The phenomenon of educational leadership can be most effectively studied from a multidisciplinary perspective drawing on psychology, sociology, pedagogy, management, and complexity theories, which opens the phenomenon of educational leadership for new thinking.

2 Literature Review

A widely regarded foremost speaker for leadership and change, Kotter (1996) diagnoses a need for organizational change because currently used management techniques do not affect behavior. He argues against hierarchical structures and traditional management approaches used for decades and suggests a dual operating system relying on widespread change agents other than traditional few executive nominees, as well as placing more credit in leadership rather than management (Kotter 2012).

Analyzing the success and failure of change management, we can say that it is obvious there is a gap between the interests pursued by any change intervention in an organization and those of its employees obliged to translate the change into action (Burnes and Jackson 2011). While arguing against the traditional linear approach to organizational change and its sequence of projected measures to introduce a new working procedure, Graetz and Smith (2010) strongly support multi-paradigmality of cohesiveness and change.

Since changes must ultimately be carried out by change recipients or employees, it is reasonable to understand the recipients' rationale behind their change-supportive

behavior in order to instill openness to change in employees rather than react upon their resistance to it (Armenakis and Harris 2009). Identifying preconditions of successful transformation, the authors state that a multidimensional approach to change management needs “the support of formal leaders as vertical change leaders, as well as the opinion leaders who can serve as horizontal change agents” (Armenakis and Harris 2009).

Having researched modern philosophies of effective leadership in higher education, Black (2015) discovers the interfusion of the authoritative top-down model of leadership produced by management hierarchies and teacher-centered down-to-top leadership models. Black (2015) concludes that academic leaders are currently under compulsion to distribute or delegate official leadership powers typical for command-and-control leadership models because, citing Goffee and Jones (2009), he suggests that this approach is specifically inappropriate and harmful when managing the academic community (Black 2015).

Advocating leadership change in higher education, Jones et al. (2017) clearly articulate their concern about measuring the performance of each academic unit against key performance indicators (KPIs) such as papers per faculty, citations per paper, teaching and learning outcomes, and “climate” criteria (Jones et al. 2017). Recognizing the leader-centric character of modern leadership paradigms in higher education and the necessity of developing leadership proficiency beyond the scope of positional leaders, the authors propose a distributed leadership approach as an efficient instrument to re-channel leadership energy by transferring the leadership concept from the heroic-leader-centric to a more distributed mode through a combination of hierarchical and cross development procedures and cooperation at the various strata of an institution (Jones et al. 2017).

Having traced the emergence of collective, collaborative, emergent, and democratic leadership, Bolden (2011) concludes that all the burgeoning applications of different leadership concepts are a crucial contribution to different “hybrid configurations” of practice. Exploring the concept of distributed leadership as an operational construct, Bolden et al. (2008) formulate two major approaches to distributing leadership in higher education – “devolved authority and emergent influence,” the first being connected with top-down formal chain of command while the latter being associated with bottom-up informal leadership agency.

Focusing on the constraints to which middle-level leaders are exposed in meeting the requirements of their superiors and standing up to the aspirations of their subordinates, Franken et al. (2015) describe the middle level of university leadership as a sphere of academic endeavor of particular complexity created by interactions with professionals in executive and non-executive positions as well as networks across schools and departments. Mid-level educational leaders have to balance the research and teaching efforts of the faculty and overcome the barriers erected by communication breakdowns inherent to hierarchies. Holding a context-sensitive middle-level leadership position suggests prioritizing opportunities and challenges relevant to professional and power relations, observing absolute parity on all the academic issues, and navigating the ever-changing operating environment (Franken et al. 2015).

Taking a micropolitical approach to educational leadership, Lumby (2015) suggests considering the nuances of “influencing behaviors” that create an informal organizational culture able to introduce change through everyday social and interpersonal practice. Seeking to bridge the gap between the management theory, institutionalization, and facts of academic life, the author assumes that the unique feature of university leadership is mostly “self-leadership” due to the fact that micropolitical processes, contradictive relationships, and special interest groups cultivate individualistic rather than corporate leadership expectations in academic communities (Lumby 2015).

Crevani et al. (2015) analyze the leadership phenomenon in the context of “leaderism” (O’Reilly and Reed 2010) as an increment to managerialism, which describes individual leaders’ aptitudes conducive to new transformational agendas, problem-solving, interest parity attainment, inspiring enthusiasm, and mutual recognition of organizational values. The authors discover university-level insights needed to combine leaderism and managerialism into a model of “changing leadership cultures” featuring professionalism compatible with bureaucratic ideals (Crevani et al. 2015).

According to Goldstein et al. (2010), a complexity science-based view sees leadership as a cross-developing process area producing impact through interactions across the organization. The authors posit that cross-impact interactions occurring through the longevity of the organization in all its integrant parts ingenerate improvement which unexpectedly manifests innovation. Thus, the genuine process accelerants that will trigger innovation and change are the contextures emerging in the “nexus of interactions that connect members to each other in the environment” (Goldstein et al. 2010: 2). Emphasizing the excellence of “generative leadership” over the various rightful models, the authors state that the advantages of reciprocal intercommunication will increase the organization’s novelty, flexibility, and growth (Goldstein et al. 2010). Implanting complexity theory concepts into leadership and transformation philosophies, Hazy et al. switch their concentrating interest from the top and middle level in the organizational structure to the leadership emergence produced by lower-level intercommunications and the emergent properties of the organization that propel it to a higher level of development (Hazy et al. 2007).

3 Research Methodological Framework

The purpose of the present research was to undertake the analysis of the current literature on organizational change, transformational leadership, and higher education agents capable of it, estimate the intensity of need for changes, and reflect on the draft base for change leadership endeavors in higher education.

The study employed an investigative survey based on statistics provided by the official records of the Intelligence Unit of Quacquarelli Symonds and data collected from undergraduate students by use of questionnaires. The research focused on the Federal State-Funded Educational Institution of Higher Education “Financial

Table 1 QS ranking criteria and ratings of the Financial University under the Government of the Russian Federation

Core criteria	Points awarded	Points available	Stars awarded
Teaching	131	150	*****
Employability	122	150	*****
Internationalization	35	150	**
Research	16	150	*
	304	600	

Source: www.fa.ru

University under the Government of the Russian Federation” with a 95-year history of higher educational programs in various areas of financial expertise and graduates with the best competitive advantages in Russia. Having established partnership relations with 90 overseas universities and 50 banks all over the world, operating domestically through a wide net of branches, the Financial University under the Government of the Russian Federation is fully engaged in training economists, the best of which are fruitfully productive in the Government of the Russian Federation, Ministry of Finance, and corporations. According to QS, the university is on top of the best Russian university lists (QS 2017).

The QS Stars Development Roadmap assesses universities against such criteria as research, teaching, employability, internationalization, facilities, online/distance learning, art and culture, inclusiveness, and specialist criteria based on a rating method and computes QS World University Rankings (QS 2017) (Table 1).

The above chart summarizes the university’s performance upon indications, the maximum possible number of points being displayed against the number of points achieved by the university. Of 600 points available, the Financial University’s individual score is overall 304, with the best teaching results of 87% and the lowest score of 11% against the core criteria of research. Apparently, this university is teaching-centered, and it can most benefit from additional focus on research, which will provide a solid foundation for and increase in its overall rating (QS 2015). Of particular relevance was a recommendation to strategize the university energies with the aim to increase its research impact not only offering prospective students a range of bachelor’s, master’s, and doctoral programs in different financial disciplines but also improving its research opportunities for domestic and international students and researchers. However, a valuable recommendation without a good idea how to goad the university’s academic community into action is a wasted recommendation.

Given that teachers are mostly critically thinking personalities with uncompromisingly principled stand, it is instructive to consider the change leadership potential of those who are led (Martensson and Roxa 2015). We assume that the most direct and immediate means to transform the university academic energies into a mode of change and innovation and boost research activity is to repurpose its major strength – teaching – through breaking new ground for added functionality of university teachers.

Table 2 Summary table of survey findings

Research skills	Strong skills	Good enough skills	No skills	No opinion
Independent use of the sources of background materials	78%	22%	–	–
Independent optimum sampling of literature for review	48%	52%	–	–
Independent and guided abstracting of literature reviewed	11%	65%	20%	4%
Independent outlining and summarizing of the literature reviewed	56%	31%	9%	4%
Independent writing of opinion and argumentative essays	22%	54%	20%	4%
Independent and guided extracting of content from the literature reviewed	39%	46%	15%	–
Independent and guided formulating of a thesis statement	52%	42%	6%	–
Bringing forward an argument	50%	43%	3%	4%
Making inferences and/or finding evidence to support generalizations	48%	52%	–	–
Breaking down information into component parts and identifying motives or causes	32%	44%	20%	4%
Creatively or divergently applying prior knowledge and skills acquired in the ESP course to produce presentations and reports on various financial topics of research	22%	54%	20%	4%

Source: authors

Based on the above assumption, we conducted a survey of undergraduates' estimates of the value of learning outcomes with the aim to determine the transformative educational power of the interactive education environment built up by the ESP (English for Special Purposes) teachers as a means of self-motivation for independent and guided research activity. The questionnaire offered to the second-year students of the credit department was designed to get insights into the students' estimates of the ESP module, critical thinking, and research skills acquired during the course (Table 2).

4 Results and Discussion

Initial findings from the exploratory part of the research showed that teaching-centered universities successfully disseminate knowledge to society, meeting its social and economic needs. However, they undergo difficulties in successful identification of ways to enhance research activities of their faculty and students. The Financial University has relatively low research production levels with research

impact (QS Stars 2015). Apparently, the university is in need of transformational change through top-down and bottom-up leadership efforts and coordinating strategies (Jones et al. 2017). There is an obvious cause and effect relationship between the change agents' awareness of the need for changes and any organizational change initiated. Both change agents and change recipients are required to recognize the disharmony between the organization's present status and its ideally envisaged state (Armenakis and Harris 2009). Taking the perspective of academic openness and responsiveness to change, we identify university teachers as thought leaders and trendsetters who together with students create interactive learning environments, producing both real-life case studies and inspiring research to meet the university's current priorities and preferences.

The beacon of success is the one who is capable of continued learning and development, creating an organization of learning (Sohmen 2016). Given the fact that leadership centers on taking followers from the present state of development to a higher grade or position (Sohmen 2016), we identify university teachers as most competent in educational leadership due to their capacity to motivate and involve others in cognitive agility and research vigilance. The self-assessment survey of students' research skills showed that having taken an ESP course in financial English, about three quarters of the undergraduate students of the credit department on average possess strong and good enough critical thinking and research skills. Moreover, the students demonstrate the awareness of their capabilities for analysis and synthesis, which is the quintessence of research. Being skillfully guided by teachers in learning, involved in project teams, and inspired to do independent research, students interact with teachers and each other to establish working groups and research circles, all of each creates academic "microcultures" featuring collegiality together with leadership (Martensson and Roxa 2015).

5 Conclusion

In order to answer the research questions, we draw on the literature reviewed and our findings to conclude that modern transformation of society and its institutes, caused by exponential growth in data and information technologies and thus global transfigurations, triggers off leadership forces promoting change and overall progress. The educational sector appears to be on the attacking end of the social and economic advancement. Higher educational leadership is challenged to pass into the category of change leadership rather than cling on to the glorious past achievements through command-and-control top-to-down instructions. Being the most responsive leadership agents as well as leadership recipients, university teachers win over the leadership relay baton as they create interactive learning environments – fertile ground or seedbed of research and novelty. Providing expert advice and instruction, university teachers engage students in research and lead them up to academic advancement. Our findings lead us to conclude that as university teachers perform the main functions of leadership practice – setting the direction of students' development,

promoting self-education and research, and redesigning organizational work – change leadership is “translated into the student-teacher leadership contexts” (Cifuentes and Vanderlinde 2015).

We recommend systematically investing in the quality of teaching, initiating considerable curriculum changes with the aim to increase the proportion of independent electronically guided learning in order to free up time for research activities, as well as designing software applications enabling educational leadership agents to interact. We consider these measures to be the essential prerequisites of change leadership emergence as a formula of success.

We admit that the phenomenon of higher educational leadership has been insufficiently explored and requires further comprehensive research.

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Shadow Incomes and Real Inequality Within the Framework of Leadership and Social Change



Halyna Mishchuk, Halyna Yurchyk, and Yuriy Bilan

Abstract Our paper suggests a new method of assessing income inequality which also allows estimating the contribution of each income decile group to the formation of shadow income. The authors identified the share of shadow incomes of individual population groups in its overall distribution with the assumption that the decile shadow income distribution corresponds to the structure of total expenditure breakdown by the respective population group. The paper normalises the expenditure structure and the availability of individual benefits on the basis of available data (official surveys of expenditure structure, self-assessment of household property and income) taking into account only those types of income and expenditure that have the most obvious signs of positive or negative impact on the opportunities of participation in the underground (or shadow) relations. The authors' approach revealed significant differences in the estimates of the participation of different decile groups in the real income distribution, particularly in Ukraine, the Gini coefficient, as determined by official data, did not exceed 0.227 in 2015, adjusted by the income distribution indicators – from 0.248 to 0.266 depending on the source of data on the population inequality; a similar difference in the decile dispersion ratio was 4.5 versus 5.24–6.06. Thus, there is strong evidence that such differences should be taken into account in analysing the real inequality of income distribution while choosing social policy alternatives.

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1 Introduction

Informal (or shadow) economic activity is common even in the advanced economies of the world with the high level of social responsibility and effective mechanisms of state control in the field of employment. However, shadowing becomes a significant barrier to economic and social development for those countries that are undergoing transformation processes in the economic development, and Ukraine is a vivid example in this case. Furthermore, the case study of Ukraine illustrates the divergence of the official statistics and the real differentiation of the living standard of the population in a particularly convincing way. It is known that recently Ukraine has gained the position of a European leader according to the official indicators of the fairness of income distribution, bypassing the EU member states according to the Gini coefficient, Palma ratio and Atkinson's inequality measure (or Atkinson's index): at least this is the data one can see in the Human Development Report (UNDP 2016). Nevertheless, it is not only the well-known Ukrainian economists but the state officials who declare a dramatically different situation. In particular, the Ministry of Economic Development and Trade has affirmed that the scale of latent economic activity in Ukraine is within the range of 26–57% of GDP according to different calculation methods, whereas the composite indicator is 40% (NISS 2015). Thus, the shadow sector forms a kind of “parallel” state which has a significant impact on all social and economic processes in the society, particularly on the formation, distribution and redistribution of income. Without considering this fact, the monitoring of the population inequality according to official income is incomplete, and the corresponding results are surely inadequate. Given that fact, in this article, we suggest our authors' approach to assessing shadow incomes and to determining the objective scales of its inequality.

2 Literature Review

The research about the size of the shadow economy has grown rapidly not only in transition economies, but all over the world. In particular, according to one of the latest estimates (Schneider 2015), the size of the shadow sector is quite significant in every EU country. However, the vast majority of them have so-called safe level of shadowing (where the underground economy is under 30% of GDP); the only exception in 2015 was Bulgaria with the shadow economy size of 30.6% of official GDP. In other countries, it ranged from 8.2% (Austria) to 28.0% (Romania).

Most of the modern studies on shadow incomes are aimed at revealing the share of the underground economy in general, as, for instance, in the above-mentioned study. One of the most cited and known papers in this field (Dreher et al. 2014) clearly demonstrates how the estimates of the size of the shadow economy can be applied in the economic feasibility of the distribution and institutional determinants of output and total factor productivity. Unusual vector of shadow assessments is the

analysis of the underground economy from the standpoint of the spread of shadow prices and their impact on changes in incomes and multidimensional concepts like well-being or sustainability in general (Munda 2014; Simionescu et al. 2016; Strielkowski et al. 2016) which is based on general shadow indicators, similar to another research (Mostenska 2015), without taking into account the specifics of their formation in different social groups.

Each of the papers assessing the extent of shadow relations uses either expert assessments or statistical methods based on the analysis of discrepancies in individual indicators for the formation and use of national income component (Janda et al. 2013). An overview of such methods has been successfully completed in one of the special studies (Ekici and Besim 2016). Statistical or economic and mathematical methods for identifying the size of shadow economy are a common way of monitoring the underground sector by government officials, for instance, used by the Ministry of Economic Development and Trade of Ukraine (NISS 2015). Nevertheless, general estimates of the scale of shadow economic relations are rarely useful for hidden household incomes' monitoring and their differences in various groups. Therefore, it is impossible to identify a real inequality in the living standard of the population and to propose adequate mechanisms for its regulation, taking into account the origin and use directions of the underground components of total income, basing on the general characteristics of the shadow economy.

This particular disadvantage can be eliminated with the use of special analysis methods precisely developed to assess the shadow incomes of the population and not the economy as a whole. Above all, Ekici and Besim (2016) suggested using economic and mathematical modelling to analyse the differences between "real incomes" and "underreported incomes" on the basis of comparing monthly food spending as a percentage of income which we believe to be very effective. Although this method does not fully capture all types of costs that can be offset by hidden incomes, the logic of its application reflects the most common statistical methods for assessing differences in the formation and consumption of resources, using this approach at the level of household budget analysis.

The sociological surveys have also become widely used, albeit with certain reservations regarding the accuracy of the assessments. Their methodology is common: household surveys and the identification of underground activity signs (income, employment and others – depending on the objectives of the study) based on the assessment of respondents.

Williams and Horodnic (2016) presented one of the very large-scale examples of the usage of such methods (26,659 face-to-face interviews conducted in 27 EU countries) in their study that involved the share of work in the shadow economy. Raitano and Fantozzi (2015) also successfully applied the given methods in their paper which stated that original contribution was to inquire whether the change of political leadership affected tax compliance (income reporting) among Italian employees.

With regard to the impact of shadow incomes or underground relations on the welfare of society, in particular wealth distribution, the analysis is either limited to the general statement about the existence of inequality or comes down to the

examination of known economic and social concepts, such as Pareto's law, and the simulation of changes in the income distribution with the use of such tools as the Gini Index and drawing the Lorenz curve (Magessi and Antunes 2015). At the same time, the assumptions are made on the basis of existing patterns without considering the possibilities of clarifying the shadow components of the incomes of the certain groups of society (Sinicakova et al. 2017; Soltes and Gavurova 2015). While accepting the fact the shadow economy as a whole, as well as its influence on the sense of fairness of distributive processes in the country, is a powerful factor in the formation of a sense of comfort and its consequences, in particular migration, as evidenced in one of our previous studies (Mishchuk and Grishnova 2015), at the same time, it is crucial to emphasise that the methods that allow revealing the share of shadow incomes in the context of certain population groups, as well as the patterns of its distribution, have not yet been disseminated in scientific circles, although they are extremely necessary for a comprehensive analysis of equality and justice and ensuring social peace in every society, particularly in ways which are defined in some works (Chvátalová 2016; Moyseyenko and Ryvak 2016). The use of such results to clarify the real scale of income inequality can be made on the basis of known assessment methods, in particular, in the research that laid the foundation for modern approaches to the income inequality analysis (Dalton 1920; Lorenz 1905; Shorrocks 1982).

3 Research Methodology

The method of shadow income research proposed in this paper is based on the identification of underground income component for the population of different decile groups. In order to do this, we analyse the income structure with the division of its components into stimulants and deterrents regarding the possibilities of underreporting which, in its turn, allows for taking into account the differences in the participation in the accumulation of illegal income and how it is used. The initial hypothesis of the study is that the structure of household expenditures, taking into account its differences in the decile population groups, reflects the decile distribution of households by the possibilities of obtaining illegal income.

The information base of our research is the statistical data of the household income and expenditure survey in Ukraine for 2010–2015: the survey of the structure of expenditures, households' self-assessment of their property wealth and self-assessment of income and spending patterns. The input data for Ukraine are available from the open sources (SSSU 2015a, b).

The algorithm for estimating the population income inequality taking into account its underground component according to our approach is as follows:

1. Select the factors that, according to existing groupings of household expenditures and resources in the context of decile groups, are most consistent with the

hypothesis of using hidden incomes to meet certain needs/to purchase certain types of assets.

2. Divide the factors into stimulants and deterrents by the nature of their influence on the possibility of obtaining shadow incomes.
3. Calculate the share of shadow incomes for each decile population group using the normalisation of the selected factors by the indicators of structural correlations of stimulants/deterrents in total expenditures.
4. Calculate adjusted incomes (along with the shadow ones) in each decile population group.
5. Calculate the Gini coefficient and the decile dispersion ratio according to the official figures of total expenditures and adjusted total income of the population, determined in our calculations.
6. Compare the indices of income inequality by the total and adjusted total income of the population.

In order to determine the share of each decile population group in the shadow incomes and ensure its 100% totality, it is suggested to normalise the relevant indicators according to Eqs. (1) and (2):

$$x_{ij}^{n+} = \frac{x_{ij} - \min(x_{ij})}{\max(x_{ij}) - \min(x_{ij})} \quad (1)$$

$$x_{ij}^{n-} = \frac{\max(x_{ij}) - x_{ij}}{\max(x_{ij}) - \min(x_{ij})} \quad (2)$$

where x_{ij} is the value of j -th indicator for i -th decile population group, $\min(x_{ij})$ is the minimum value of the j -th indicator for i -th decile population groups and $\max(x_{ij})$ is the maximum value of the j -th indicator for i -th decile population groups.

Aiming to determine the ratio of each of the decile groups in the total indicator of the expenditure share (d_{ij}), it is recommended to use Eq. (3):

$$d_{ij} = \frac{\sum_{j=1}^{14} x_{ij}^H}{\sum_{i=1}^{10} \sum_{j=1}^{14} x_{ij}^H} \quad (3)$$

Since the source data used for the study was formed by the State Statistics Service within the relevant sample household income, expenditure and consumption survey with the appropriate rules for ensuring the representativeness of the samples, we can state that the source information is completely reliable.

The difference in our approach from the work of other researchers is the ability to identify the participation of different decile groups in the formation of the total shadow income of the society, as well as an assessment of the real scale of income inequality, using the classic tools of analysis, but based on more accurate data on the total income of social groups.

4 Results and Discussions

In Ukraine, the official income inequality indicators determined by the Gini coefficient and the decile P90/P10 ratio (the ratio of the lower bound value of the tenth decile (i.e. 10% of people with the highest income) to the upper bound value of the first decile) are within acceptable limits. In particular, after comparing the income inequality in Ukraine with the EU indicators available from the relevant statistical sources (Eurostat 2015; SSSU 2015a), one can see a significantly lower level of inequality compared to the vast majority of European member states. Therefore, in this regard, Ukrainian state demonstrates leadership in the field of social change. Ukraine, along with such EU member states as Norway, Slovenia, the Czech Republic, Sweden, Finland and Belgium, belongs to a group of states with a low degree of income inequality. Most of the EU countries have average (France, Croatia, Germany, Ireland, Poland, Italy, etc.) or high degree of income inequality (Greece, Portugal, Spain, Cyprus, Bulgaria, Serbia, etc.).

Obviously, there is no statistical data that would allow us to reliably estimate the distribution of shadow incomes by the decile population groups. This can only be done on the basis of certain assumptions. In particular, according to our hypothesis, the pattern of shadow income distribution may reflect the structure of household expenditures. Its analysis showed that there is a significant variation in the expenditures of decile groups in Ukraine. According to the sample survey of cash expenditures of households in Ukraine by decile groups in 2015 (SSSU 2015a), the share of food and non-alcoholic drinks and housing (including public services relating to the dwelling) is higher in the first decile population groups. Given that a significant share of relevant expenditures is an indicator of a low standard of living, we believe that the cost of the relevant expenditure items in the context of impact on income shadowing is a deterrent (disincentive). Let us denote them accordingly: X_1 , food and non-alcoholic drinks, and X_2 , housing, fuel and power (including water supply, electricity, gas and other fuels).

At the same time, the share of spending on other items (clothing, footwear, household goods and services, etc.) is significantly higher in the last decile groups. In view of this, these expenditures in the context of their impact on the distribution of shadow incomes are identified as stimulants: X_3 , clothing and footwear; X_4 , household goods and services and current maintenance of the dwelling; X_5 , health; X_6 , transport; X_7 , recreation and culture; X_8 , education; X_9 , restaurants and hotels; X_{10} , miscellaneous goods and services; X_{11} , money transfers and cash gifts given to relatives, those outside the household; X_{12} , purchase of houses, flats, etc. including deposits and second dwelling; X_{13} , capital improvements and construction of housing and other buildings; and X_{14} , savings and investments: purchase of shares, certificates, currency and bank deposits.

Thus, we made the calculation of normalised values of the structure of expenditures and their share in the composite indicator of the expenditure ratio according to Eqs. (1)–(3); after choosing out of the existing distribution of household expenditures, only those components with the most confidence can be identified as

stimulants for the formation of shadow incomes, and also after excluding from the calculation those expenditure items, variation in the context of decile groups was insignificant (alcoholic drinks, tobacco, communication) (see Table 1).

Considering the significant level of the national economy shadowing, we believe that it is the structural features of the expenditure formation for decile groups that indirectly indicate the patterns of shadow income distribution. In particular, the structure of the expenditures of the tenth decile allowed estimating its share in the shadow incomes at the level of 24.8%. It is significant that the share of deciles in total shadow incomes varies according to the “top-down” principle (from the upper to the lower decile). At the same time, the first decile accounts for only 2.6% of the shadow incomes.

Using the same methodology for calculating normalised indicators, but using the other statistical data, the second way of estimating shadow incomes from available statistical household surveys is the use of such indirect indices of income distribution as the indicators of household property wealth: ownership of durable goods, housing, land, availability of auxiliary households, etc.

The analysis of the relevant input data (SSSU 2015a) suggests that households in Ukraine are characterised by differences in the availability of certain types of the above-mentioned indicators. As the research has shown, for a number of durable goods, the level of deciles’ provision does not differ significantly. In particular, they include refrigerators, TVs, washing machines, cell phones, electric vacuum cleaners and sewing machines, in which availability in the dwelling is a “norm” today (considering this, the relevant groups of goods are not indicative in the context of the shadow income study). At the same time, for a range of durable goods, the variation in the deciles’ provision is significant (cars, air conditioners, laptops, PCs, kitchen combines, etc.). Therefore, it is logical to assume that the indicators of the provision of the relevant goods also reflect the patterns of shadow income distribution. In addition to durable goods, tenure status by type of housing is also a significant factor of the variation of the household property wealth in Ukraine by decile groups. According to the research, tenure status of household housing in Ukraine with regard to owner-occupied dwellings is growing according to a bottom-up principle (from the first to the tenth decile). At the same time, the first-fifth decile households more often live in an owner-occupied home. In particular, the availability of owner-occupied houses for the individual households of the last decile is only 29.5%, while for the first one 62.9%. Taking into account that the availability of owner-occupied houses is a quantitative criterion which does not take into account its qualitative parameters (area, availability of amenities), and the urbanisation level in Ukraine compared with other states is rather low, we believe that this indicator is a deterrent in the shadow income distribution. At the same time, provision of such types of housing as dormitory and congregative living facilities (shared apartments) is a deterrent indicating a significantly higher level of involvement of the last deciles in shadow incomes.

The presence of livestock, poultry, bees and land plots is a rather contradictory indicator of the property wealth and population security. The analysis shows that a significantly higher share of households keeping cattle, poultry and bees is observed

Table 1 Calculation results for normalised expenditure indicators (x_{ij}^n) and the share of decile groups in the composite indicator of expenditure ratio (d_{ij})

Expenditure headings (j)	Decile population groups (i)									
	1	2	3	4	5	6	7	8	9	10
Normalised indicators (x_{ij}^n)										
X_1	0.0000	0.0102	0.1472	0.2132	0.1929	0.3706	0.3706	0.3706	0.5076	0.5838
X_2	0.4286	0.5000	0.0000	0.3929	0.4643	0.6429	0.5000	0.5000	0.7143	0.6786
X_3	0.0000	0.2667	0.1333	0.2667	0.2667	0.8000	0.7333	0.6667	0.6667	0.5333
X_4	0.0000	0.3636	0.3636	0.5455	0.5455	0.7273	0.5455	0.5455	0.9091	0.9091
X_5	0.0000	0.3750	0.5000	0.8125	0.5000	0.6875	0.9375	0.9375	1.0000	0.8125
X_6	0.0000	0.1190	0.1190	0.3571	0.2381	0.3333	0.5000	0.5000	0.5952	0.5714
X_7	0.0588	0.0000	0.0000	0.1765	0.0588	0.2353	0.1176	0.2941	0.3529	1.0000
X_8	0.4000	0.6000	0.2000	0.8000	0.0000	0.4000	0.2000	0.2000	0.8000	0.6000
X_9	0.2500	0.0833	0.0417	0.0000	0.2500	0.1667	0.2083	0.2917	0.3333	1.0000
X_{10}	0.1429	0.0000	0.1429	0.0000	0.1429	0.7143	0.4286	0.8571	0.5714	1.0000
X_{11}	0.0000	0.0000	0.1212	0.1818	0.2424	0.4242	0.3030	0.4545	0.6061	1.0000
X_{12}	0.0833	0.0000	0.0000	0.0000	0.2500	0.0000	0.0000	0.0000	0.0000	1.0000
X_{13}	0.0000	0.1429	0.1429	0.2857	0.2857	0.2857	0.4286	0.2857	1.0000	0.8571
X_{14}	0.0816	0.0000	0.1224	0.1224	0.1429	0.2653	0.3469	0.3878	0.6122	1.0000
$\sum_{j=1}^{14} x_{ij}^n$	1.45	2.46	2.03	4.15	3.58	6.05	5.62	7.70	8.35	13.67
d_{ij}	2.6	4.5	3.7	7.5	6.5	11.0	10.2	14.0	15.2	24.8

Source: Authors' calculations from data (SSSU 2015a)

in the fourth to ninth deciles. At the same time, the highest level of owned land plots is observed in the first to sixth deciles, and this fact, respectively, affects their participation in shadow incomes.

The third way to estimate the shadow income distribution is to analyse the distribution of respondents according to the self-assessment of their own standard of living: the source data are published in SSSU (2015b). The relevant results show that the share of the respondents who noted the adequacy of their own income with the ability/inability to make savings is significantly higher in the last deciles. The share of the respondents who noted the lack of income (couldn't afford the most necessary things, except for food, could not even provide adequate nutrition) prevails in the first deciles. Similarly, as in the approach outlined above, all indicators in the context of their impact on the shadow income distribution were divided into stimulants and deterrents.

After normalising the indicators of the property wealth (second method of the data analysis) and the self-assessment of the level of own income (third way) conducted according to Eqs. (1) and (2) and after calculating the share of each of the deciles in the composite indicator of the specific share according to Eq. (3), we can combine the results of the calculations performed basing on three statistical data sources on the distribution of household expenditures and resources and determine the variation in the deciles' share in the shadow incomes (see Fig. 1).

As one can see, participation in the shadow income distribution grows on a bottom-up principle (from the first to the tenth decile). At the same time, the share of the tenth decile in the shadow incomes is the highest (ranging from 19.1% to 24.8%). Along with this, according to different calculation methods, a fairly significant share of shadow incomes is formed in the eighth and ninth deciles.

In order to assure the most complete consideration of the results of calculating the share of shadow income according to all methods, it is necessary to determine the average value of the coefficient of participation in adjusted income (involves the calculation of the average among the indicators of participation in shadow income for each method of the input data grouping). The results of the calculations conducted on the basis of the average indicator of participation in shadow incomes showed that the inclusion of the shadow income component fairly changes the patterns of its distribution by the decile population groups in comparison with the total income: if according to officially established total income in 2015 the fifth to tenth income decile of Ukrainian earners received 65.7%, then the adjusted share corresponds to 68.3%.

Having calculated the most common indices of income inequality (Gini coefficient and decile dispersion ratio), we can confirm the significant differences in measuring inequality according to officially declared total income and adjusted income (see Table 2).

It is indicative that the Gini coefficient indicates a very low level of income inequality in the total income, while the adjusted income is average. Decile dispersion ratio also demonstrates a significantly higher level of income inequality, taking into account its shadow component. Consequently, if the 10:10 ratio has a relatively low gap as the richest 10% only earn 4.4–4.5 times the poorest 10%, then the similar

correlation for adjusted incomes according to various criteria is 5.24–6.06 times and, therefore, indicates considerably higher inequality in the income distribution.

The authors are aware that the outlined approach to assessing the income inequality based on its shadow component can be criticised. After all, the relevant calculations were made on the basis of sample household surveys which a priori cannot be absolutely reliable, as well as a number of assumptions. At the same time, our research is conducted basing on the logic of accumulation and use of resources which should be reflected in the corresponding structural indicators, in accordance with the patterns of their distribution, both by official and hidden income, and also having in mind that in assessments of underground relations of any level the data of sample surveys with all the uncertainties in any case provide more objective indicators than the official monitoring data, including the violations detected by the fiscal authorities which can only fragmentarily characterise the entire scale of the “shadow”. By presenting a new view on the methodology for identifying the hidden component of the total income of the population and its distribution to the scientific community, this study shows that the necessity of using not only expert assessments in this area but also the substantiation of methodological approaches to statistical analysis which makes it possible to obtain more objective results and can serve as a more reliable basis for further evaluation of real income inequality deserves closer attention by scientists and academics, for instance, aiming at assessment of real poverty level, wealth distribution or social inequality, proposed in some works (Chmielewska and Horváthová 2016; Jankiewicz 2014; Rakauskiene and Volodzkiene 2017; Mishra and Singhania 2014).

5 Conclusions

As we found in our respective study, officially acceptable and even excellent indicators of a slight income inequality differ significantly from the real situation, if one takes into account the shadow component of income distribution. There is no reliable information base for assessing the shadow income distribution, and thus, it is necessary to substantiate it. There are several possible sources of statistical information for characterising the shadow income distribution by income deciles according to the author’s approach; particularly they include the following: (1) the household expenditure structure, (2) distribution of respondents according to the self-assessment of their own standard of living and (3) indicators of household property and material wealth. The inclusion of the shadow income component fairly changed the patterns of its distribution by the income deciles in comparison with the total income distribution.

While bearing in mind the shadow income component, we were able to calculate adjusted total income, the distribution of which according to the deciles of the population is somewhat different from the distribution of total income. Thus, on the case study of Ukraine, we have confirmed that the real inequality in the income distribution is significantly higher than the current statistics shows. Apparently, the

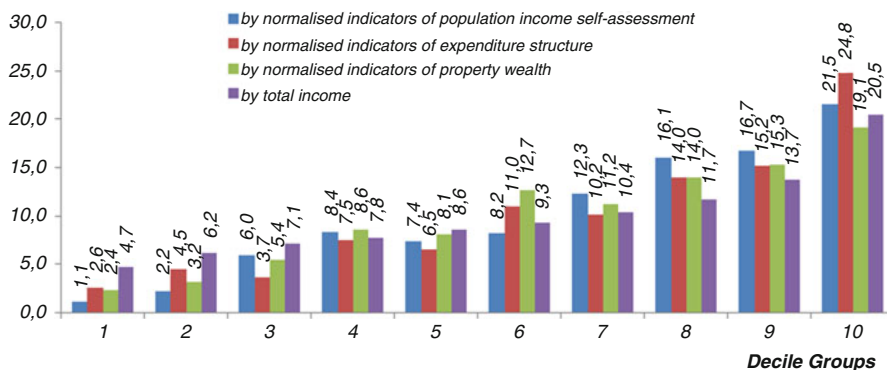


Fig. 1 The share of Ukrainian population deciles in shadow incomes calculated by different methods in comparison with total income, % (Source: Authors' results based on SSSU (2015a))

Table 2 The Gini coefficient and decile dispersion ratio by total and adjusted total income in Ukraine (2014–2015)

Value of indicator	Gini coefficient		Decile dispersion ratio	
	2014	2015	2014	2015
By total income	0.226	0.227	4.4	4.5
By normalised indicators of population income self-assessment	0.265	0.2656	6.03	6.06
By normalised indicators of expenditure structure	0.2619	0.2656	5.57	5.58
By normalised indicators of property wealth	0.2475	0.2478	5.23	5.24

Source: Authors' calculations

estimation of income inequality without taking into account its shadow component does not reflect the real scale the gap between the households' disposable income. Furthermore, the country's leadership in the particular income inequality ranking can, therefore, be questioned. Ignoring this issue in the process of the state social and economic policy formation only strengthens social and political instability in the society, hence creating the basis for the further spread of informal economic relations and undermining the principles of justice and social responsibility. The given case study of Ukraine is just an illustration of the authors' approach in this study, while the suggested method itself can be tested in other countries, particularly with the use of different income and expenditure groupings for the population which can be divided into stimulants and deterrents by the nature of their influence on the possibility of obtaining shadow income according to the logic used in this paper. The research conducted in this paper confirms that the authors' methodology can be very valuable in this regard for any country as it simultaneously addresses several challenges facing twenty-first century social changes.

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Leadership of Lagging Territories: Myth or Reality?



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Abstract Most economic studies regard periphery as something that has remained beyond development. Its role in the economy is reduced to serving as a resource base for a center represented by a set of more developed territories and a consumer of its products. In reality, the diversity of periphery's participation in economic life often leads to the fact that it leaves the existing centers behind and takes their place instead. The article considers theoretical views on changing the position of peripheral territories in the "center-periphery" relations and turning them from outsiders into leaders. A system of indicators is presented, which can be used to assess the location of the territory in the "center-periphery" system. The center-peripheral processes in modern Russia are considered. Regions related to the center, semi-periphery, and periphery are identified. Taking subjects of the Russian Federation as an example, it is shown how peripheral regions became leaders and the centers became outsiders of economic development. A forecast of changes in the "center-periphery" system in Russia is made. The recommendations for the authorities on managing the country's spatial development have been developed. The study is divided into three parts. The first part, theoretical, presents a brief overview of the scientific discussion on the periphery of territories and the interpretation of the concept of "peripheral region." In the methodological part of the study, the authors develop a system of indicators for assessing the location of the territory in the "center-periphery" system; central and peripheral subjects of the Russian Federation are defined. The final, applied, part of the study contains recommendations for the authorities on managing the spatial development of the country.

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1 Introduction

Until the twentieth century, the focus of economic science has been done at the problems of developed countries and regions. The collapse of the colonial empires that followed the end of World War II led to the emergence of new states on the world map, the logic of development of which was no longer described by existing theories. The answer to this challenge was the creation of a number of concepts on the problems of developing countries (Mishra and Singhania 2014; Niño-Amézquita et al. 2017). Among the most significant of them is the “center-periphery” theory of Friedmann, the theory of peripheral economics of Prebisch, and the theory of “world-systems.” The above theories have become a kind of “theoretical field” for the study of the periphery as an element of a polarized economic space and as a socioeconomic phenomenon with its own logic and specific development. Nevertheless, in the abovementioned theories, the periphery is characterized from the standpoint of backwardness (Esin 2005; Stanko 2006; Brodzicki 2016; Simionescu et al. 2016). We believe that in difficult economic conditions, traditional economic centers of the country cannot always ensure its development (Janda et al. 2013). The hypothesis of this study is that peripheral territories, provided that existing economic and social problems are solved, can compete with traditional economic centers.

The fundamental nature of the research subject is that in today’s economy, the trends of concentrating population, economic resources, and other factors and means of production in certain territories continue to dominate and that not only hinders development but also weakens the level of national security of separate countries (Abrahám et al. 2015; Cieřlik et al. 2016). The research is conducted on the materials of the Russian Federation, a state that has a complex state structure.

The purpose of the study is to analyze the development trends of peripheral regions and justify the directions of their leadership.

In the course of the study, the authors are tackling and solving the problems related to (among others):

1. Definition of the “center-periphery” system of the Russian Federation
2. Development of a system of indicators characterizing the location of the territory in the “center-periphery” system
3. Substantiation of the conceptual directions of the regional policy toward peripheral regions, taking into account the specifics of their development at present stage

The information base of the research is made up of official materials of state authorities and management at various levels and official statistical information of the Federal State Statistics Service and its territorial bodies.

The practical significance of the study is that the methodological and applied issues and conclusions obtained by the authors can be used by the authorities and management at various levels in the development of policies for regulating the processes of spatial development of the state, in diagnosing the problems of various

spatial and economic entities, as well as involving peripheral territories in the processes of innovative development of the country.

2 Theoretical Basis of the Research

As it was already noted, the theoretical framework of peripheral research is often limited to classical theories – theories of “world-system,” “center-periphery,” and peripheral economy. We consider it possible to supplement this list with theories of spatial development, since peripheral territories are part of a polarized space, regardless of the scale of its consideration. Among the spatial theories, which can (to some extent) be applicable to the consideration of the periphery, it is worth mentioning the theory of agricultural land of von Thunen, the theory of the rational location of the industrial enterprise of Launhardt, the theory of industrial location of Weber, the theory of the central places of Christaller, the doctrine of the spatial organization of the economy of Lesch, the theory of growth poles, as well as the theories of Mackinder, Kjellén, Naumann, and Ratzel.

The first of the above listed theories refer to the so-called locational concept of economic space. Within the framework of placement theories, the periphery is viewed as something remote from the center and being a zone of its influence. One of its main characteristics, apart from remoteness, is the lack of transport infrastructure. Particular attention is paid to the transport factor due to the fact that it is considered as one of the key factors of accommodation. However, the listed theories have drawbacks. As noted by Zanadvorov and Il'ina, “in many cases the choice of the ‘center’ and the form of its influence zone (‘periphery’) is determined by the extra-economic (natural and social) features of the territory ...” (Zanadvorov and Il'ina 1999).

Theories of Mackinder, Kjellén, Naumann, and Ratzel can be called representatives of the geographical concept of economic space. Ratzel considered the periphery of the state as its border. It is in his opinion that it reflects the changes in the country (its expansion and reduction) (Tikhonravov 2000). Mackinder can be considered the founder of the “center-periphery” model. He, having allocated three parts in the world (axial region, “inner crescent,” and “outer crescent”), described the geopolitical situation of that time, using the concepts of a center and a periphery. A similar path was taken by Haushofer. In his “picture of the world,” there are three pan-regions, each with its own center and periphery. In Pan-America, the core is represented by the United States and the periphery, by the countries of South America and Canada. In Euro-Africa, Germany belongs to the core; the countries of Africa and individual countries of Europe belong to the periphery. The core of Pan-Asia is Japan; the periphery is Australia (Kolosov and Mironenko 2001).

Scientific literature does not offer an unambiguous answer to the question: “Can peripheral territories become a center or at least approach it?” In the framework of some theories, this question gets a negative answer. Their opponents (Braudel,

Wallerstein, Rostow, etc.) cite real facts and argue that the center and periphery can change places as a result of economic, natural, political, and other upheavals.

In modern studies, a multiscale approach to the study of the periphery is justified. At the macro-regional level, the periphery can include entire continents or their parts (Halás 2008; Hampl 2009; Sokol 2001). At the meso-regional level, the periphery is represented by separate parts of the country (see, e.g., Pileček and Jančák 2011). At the micro-regional level, municipal groups can be considered peripheral (Dvoryadkina et al. 2016; Jančák and Chromý 2005).

As part of this study, we will focus on the periphery of the national level. As peripheral, we will consider regions remote from the main transport arteries, characterized by a high degree of economic dependence on the federal center, a relatively low level of socioeconomic development, and the prevalence of traditional activities.

3 Definition of the Center-Periphery System of Russia

The economic approach is chosen as the main approach used by us in defining the “center-periphery” system. It involves the application of the territory with respect to the chosen center as a key criterion for the socioeconomic development. In practice, this is expressed in the use of GDP indicators and similar to it. In the European Union, peripheral countries are those with GDP per capita below 75% of the European average (Davies and Michie 2011). By analogy, the value of the gross regional product (hereinafter – GRP) per capita can be used as a criterion for determining the peripheral regions of Russia. Central subjects of the Russian Federation have the values of the indicator above 100% of the average, peripheral - below 75% of the average. The main source of information for calculations was data from the Federal State Statistics Service (GAS Upravlenye 2017).

The composition of peripheral subjects of the Russian Federation is presented in 1995 and 2015 (shown in Fig. 1). It is worth mentioning that the composition of the periphery has grown from 35 to 47 regions for these 20 years. Expansion of the periphery can be explained by the prevailing tendency to concentrate economic activity in a number of leading subjects of the Russian Federation (Moscow, Moscow Region, St. Petersburg, Leningrad Region, Tyumen Region, etc.), which kept a leading position in the economy in 1995 and 2015.

Forecasts of social and economic development of the subjects of the Russian Federation have become a source of information for the calculations to predict changes in the composition of central and peripheral regions of the country. The basic version of the forecasts was used by the authors as the main. Figure 1 shows that by 2019, 54 regional entities will enter the list of peripheral regions, including such economically strong regions as Moscow, Sverdlovsk regions, the Republic of Bashkortostan, etc. The economic center of the country will be represented by Moscow, St. Petersburg, and the Tyumen region with included autonomous regions, the Republic of Sakha (Yakutia), etc. into its composition.

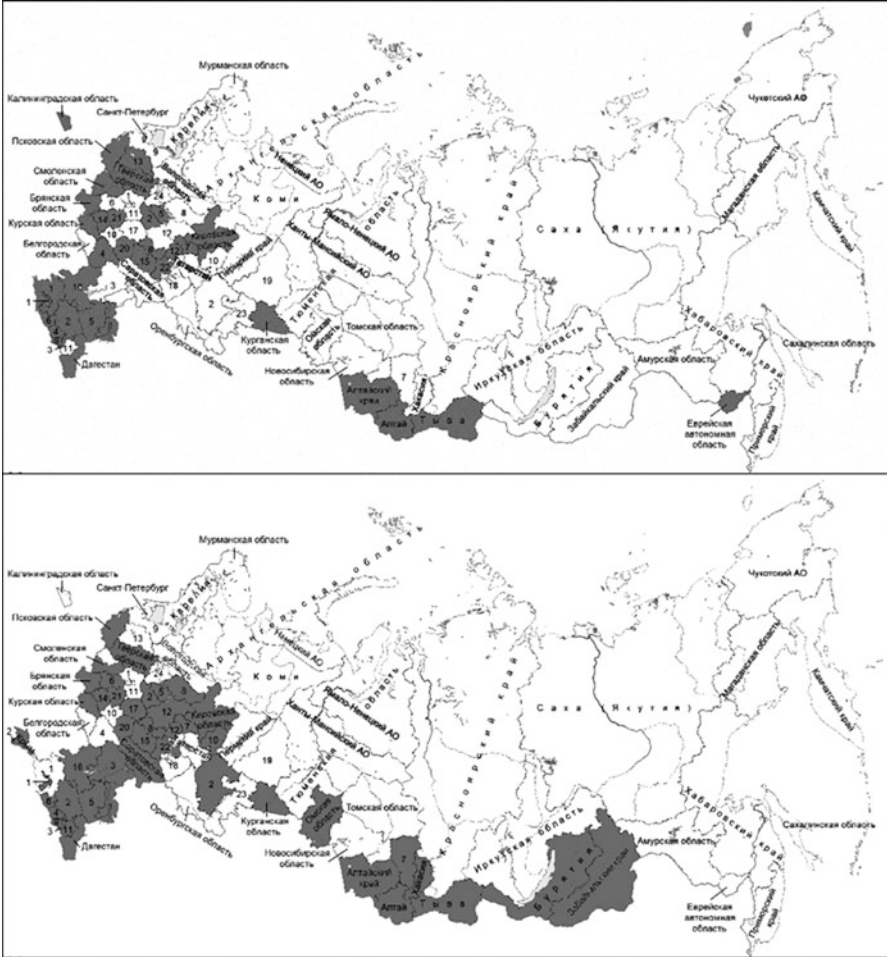


Fig. 1 Peripheral regions of the Russian Federation in 1995 (top) and in 2015 (bottom) (Source: Own results)

We believe that the methodology for determining central and peripheral territories based on the use of a single indicator does not allow us to fully appreciate such a complex phenomenon as the polarization of space along the “center-periphery” line. Peripheral and central territories are characterized by features that are not limited to the economy itself. Therefore, based on theoretical views on the essence of the periphery, contemporary Russian realities, the complex territorial structure of the country, and the qualitative heterogeneity of its constituent parts, we consider it possible to increase the number of indicators used. The system of indicators proposed by us consists of the following blocks:

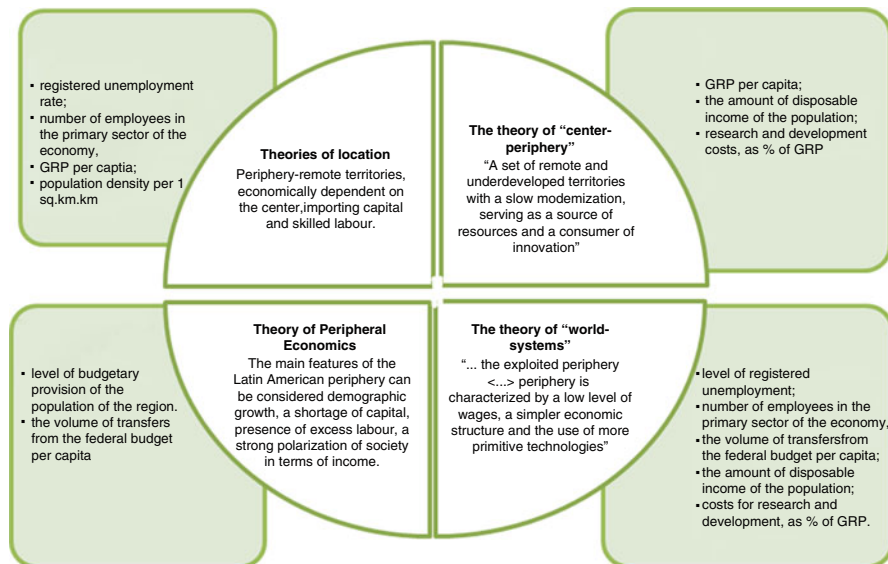


Fig. 2 Interrelation of the system of indicators for assessing the position of the territory in the "center-periphery" system with the theoretical foundations of the periphery study (Source: Compiled by the authors)

- Economic (GRP per capita, disposable income, research and development costs, as % of GRP)
- Financial (the level of budget provision of the population of the region, defined as the ratio of expenditures of the consolidated budget to the average annual population, the volume of transfers from the federal budget per capita)
- Demographic (population density per 1 km²)
- Labor (the level of registered unemployment, the number of people employed in the primary sector of the economy)

Advantages of the proposed system of indicators are its theoretical validity (Fig. 2), the availability of information in official statistics, and the ability to characterize central and peripheral territories from different points of view.

Depending on the position of the particular study and the tasks assigned to it, the number and composition of indicators can be transformed.

4 Managing the Spatial Development of the Country

There are several key directions for managing the development of the state in a spatial aspect along the line "center periphery."

The first concerns the stimulation of economic, innovative, and other activity in the periphery itself. The tools by which this can be achieved are tax incentives, creation of territories for advanced development, special economic zones, etc.

The second direction is related to the policy regarding the central territories. As a rule, these are territories with significant economic potential, part of which is concentrated in large cities. Therefore, one of the areas of activity of government bodies can be considered as the solution of issues related to the development of agglomerations (management, planning, land use, infrastructure, etc.).

5 Conclusions

Practice shows that the situation of regions in the national “center-periphery” system does not remain unchanged. The calculation by the simplest method, assuming the assignment to peripheral indicators, based on the GRP per capita, showed that for the last 20 years, the number of subjects of the Russian Federation, which may be called peripheral, has grown. The forecast for the nearest future indicates that the current trend will continue to develop until at least 2019. For a more accurate forecast, it is necessary to use more complex calculation methods that involve a comprehensive analysis of the characteristics of central and peripheral areas. To do this, a system of indicators, consisting of economic, financial, demographic, and labor blocks, can be used. A more accurate picture of the “center-periphery” system at the country level, within the framework of strategic planning and management, can be a base for taking decisions concerning the development of the state in a spatial aspect.

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Part II
Leadership as a Subject of Social Practice

Entrepreneurship Leadership as an Implementation Factor of State Programs for Accelerated Development of Primorsky Region (2000–2017)



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Abstract The subject of the research is leadership in enterprise as a new phenomenon in the contemporary business world of Primorsky Region that is especially important for accelerated development of the Far East in the process of Russia's integration into the Asia-Pacific Region. The theoretical basis and methodological approaches reflecting the standpoints of the modern historical knowledge concerning the research subject have been proposed. The scientific novelty of this work is determined by the results and conclusions on the specific features of the human factor in business of the border region that put forward a number of bright, talented organizers, which makes it possible to scientifically consider the problems of leadership in Primorsky Region, the most advanced region of the Russian Far East. For the first time, the current archives of the most successful business firms of various levels have been studied, typology and classification of their spheres of activity have been developed, and evaluation criteria have been determined for identifying the leaders.

1 Introduction

With the world's financial and economic center shifting to the APR which is home to over 40% of the planet's population and which yields almost 70% of the gross domestic product (GDP) of the world, Russia's integration into the region becomes a strategic task. It is being achieved by nine Far Eastern subjects of Russia among which an important part belongs to the Primorsky Region, the most advanced one in the south of the Russian Far East. The specific character of the studied area consists in its geopolitical situation that allows solving the West to East and the Russian Federation to the APR countries transportation problems.

The rise of the new Russian business is not a revival of the prerevolutionary business of Russia, so the new entrepreneurship had to rely on the foreign culture

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and business running principles but not on the Russian business traditions. Historically, the enterprise in Russia depended on the state. The entrepreneurs of Primorsky Region went to the foreign market in a self-developing manner, without being guided by the state into production activity, and focused on selling Russia's natural wealth of the Far East thus creating a national danger for the country.

So the personal qualities of businessmen and characteristic requirements for leadership began to be studied quite late in history terms and only as the new generation came to the sphere. Mostly, they are the descendants of underground economy that has grown together with security structures and the officials. As they were far away from the central more civilized areas of Russia and the railway transportation rates were unbearably high, the Far Eastern entrepreneurs had no demand for their products in their home region, so they focused their business activity in the markets of the APR countries. This furthered inhibition of the development of mindset and leadership skills. As a result, there formed the specific set of personality traits of leading entrepreneurs of the Far East of Russia, which was reflected in the text of the scientific paper proposed within the said time frame (Moiseeva 2003).

Together with this, the today's Russians entering the entrepreneurship give grounds for raising the problems of leadership that encompass a required cultural level, an ability to set goals, organize and select the personnel, and support the corporate business ethics under the modern changed market.

2 Literature Review

As defined by many authors, entrepreneurship is a process of creating something that is new and has value; a process that is time- and effort-consuming and implies undertaking the financial, moral, and social responsibility; and a process yielding the monetary income and personal satisfaction with the achieved (Hisrich and Peters 1990). Alongside with this, Cowell (2011) defined entrepreneurship as a focused activity of an individual or a group of associated individual designed for creating and maintaining an organizational unit that seeks to gain profit for its products or for distribution of economic goods and services. It has also to be stressed that entrepreneurship is a process of creating and running a business and a process of implementing an entrepreneurial idea. In his paper "A perspective on entrepreneurship" in 1983, Howard H. Stevenson, professor at Harvard Business School, pointed out that entrepreneurship is a science of management and its essence can be worded as the pursuit of opportunity beyond the resources controlled at the given point. It was him as well who worded the main distinctions of the entrepreneurial approach to management from the administrative one (Stevenson 2000). This can be agreed with as this concept is in line with the first stages of the Russian reforms (1990–2000) during which the entrepreneurship was formed. However, the time and conditions for successful activity of entrepreneurs demanded special qualities from them which were defined as "leadership." Myers (2005) defined leadership as a process by which

group members motivate and lead the group. Alongside with that, the entrepreneurial leadership is based on the leader considering himself as an entrepreneur heading his own business. Entrepreneurial leadership is not a position but a process in which a leader entrepreneur undertakes the responsibility for helping the company to create such conditions that enable it to shape its own status quo and to respond creatively to any change in the environment instead of being controlled.

Personality traits of a leader are inherent in not more than 8–10% of the country's population. Businessmen having the leadership skills are a national asset. The leadership component is the entrepreneur's ability to combine the production factors in a special way on the innovation, risk basis, because the economic risk is an organic constituent of all aspects of entrepreneurship: the personal one, the economic one, and the organizational and managerial one. So the leader's personal qualities first of all include the following abilities:

- To make pioneering, nonstandard decisions in both standard and nonstandard situations; to timely induce the new production, commercial, and other ideas, to evaluate their potential from the standpoint of turning them into innovations and commercial result
- To evaluate the market situation from the standpoint of gaining additional income between purchasing and selling any resources and goods
- To take risk proceeding from the up-to-date information scope and heuristic particularities (intuition) in order to get additional net income

Given the above personal qualities of leadership, all state institutions have to be prepared to model the type of a modern entrepreneur who is capable of risk. For this, a system of quality professional education is essential which is based on selecting the individuals having the special natural and psychological qualities:

- High activity, drive of the creative capacity, pursuit of success and leadership
- Resistance to stress, orientation to independence, freedom, and productivity
- An ability to promptly find, analyze, and restructure information while soundly keeping in mind one's own opportunities, the environment, and personal parameters of the workforce
- A higher intuition and responsibility for making and carrying out risk decisions
- A propensity to all kinds of risk, searching for risk situations, "productive anomalies," "breakthrough sectors," initiating risk

Having all these abilities, a leader carries out innovation decisions in a prompt and fruitful way and risks "moderately": his decisions are backed by sensible calculation and component evaluation of situations, an ability to enter and exit the situation while relying on heuristic data and "risk portfolio."

A leader promptly evaluates his own and other people's innovation ideas and the very innovations from the viewpoint of gaining the entrepreneurial income, precisely forecasting the "balance of losses and profit" from the risk of the innovation. The leaders who possess an ability to risk in business, take into account the social market regulations, and do not undermine the required level of economic freedom are a public asset.

The personality potential of a leader, including the leader's capacity for risk in business as in an economic process, consists in creating the entrepreneurial income, i.e., the additional profit from risk entrepreneurial activity. The risk is inherently associated with management in entrepreneurial activity with all its functions: planning, organization, prompt administration, reasonable use of the personnel, and innovation control.

Thus, ideally, an entrepreneur has to be a leader because he is obliged to draw people together around him and to inspire them to achieve a high goal which previously seemed to them unattainable. This capacity of a leader is closely associated with such qualities as an ability to create optimistic plans, explain the essence of innovations, and pull the workforce together enhancing the confidence of success. There is a point in the opinion of Meneghetti (2004) on a leader being a person who provides for the public interest while satisfying his own selfishness. Developing his activity, he distributes the material goods and provides hundreds of people with work. Meanwhile, the leader stimulates progress in the society and brings invigoration into the economy, which boosts evolution of the society. It has to be emphasized that a leader is the operational center of the numerous relationships and functions and one that creates new jobs, brings profit, and promotes the development of the sphere of services – broadly speaking. In the narrow sense, it is the intellectual capacities, personal qualities, and acquired abilities that can be pointed out. Thus, a leader is the one who steers and leads the way.

3 Research Methods

The methodological basis of studying leadership in business is represented by methods of sociology (questionnaire survey, public opinion poll), political psychology (the analysis of personal features, rating), and economic science (the analysis of key performance indicators). So it makes sense to use the interdisciplinary approach that by now has won quite solid ground for studying various aspects of the complex phenomenon of leadership in business. Alongside with the historic and comparative approach that allows demonstrating the transformation of leader's positions in entrepreneurship up to the changed situation, the systemic approach is used for determining the general evaluation criteria for identifying the best entrepreneurial organization and the best entrepreneur leader (Golyand et al. 2010). The Russian researchers-economists when building the evaluation systems for the results of activity of entrepreneurial structures widely used expert methods as tools (Asaul et al. 2008).

For a more profound investigation of the entrepreneurial performance, the authors find it necessary to classify the entrepreneurial activity. It has to be pointed out that in theory and practice of business, the classification according to the following attributes has been formed: form of ownership, legality, area coverage, occurrence in various areas, founding members, the number of personnel and the turnover volume, growth rates and profitability level, the level of usage of innovations, and others.

Depending on the content and focus of the entrepreneurial activity, the capital application object and obtaining of certain results, and on connection of the entrepreneurial activity with the main stages of reproduction process, the following types of entrepreneurship are distinguished:

- Production
- Commercial and trading
- Financial and credit
- Mediation
- Insurance (Baghiev and Asaul 2001)

Alongside with that, the professors of Harvard Business School have attempted to develop a typology of leaders:

- Entrepreneurs-leaders are creative and ready to risk; they have succeeded in creating a new business. They are often ahead of their time and quite frequently go through seemingly forbidding obstacles.
- Managers-leaders multiply the success of already existing companies bringing into them discipline, structure, and good organization. They achieve success owing to a profound understanding of the current situation.
- Charismatic leaders can inspire people and rescue businesses, the revival of which is already believed to be impossible. They are the change champions, and they reveal the concealed potential of companies generally considered to be stagnating or dying (Mayo and Nahria 2004).

Alongside with entrepreneurs creating companies and charismatic leaders introducing drastic change, the managers-leaders increase the value of already existing business. However, both the first, the second, and the third are innovators in their cause. A leader is a creative personality. A leader is limited by the range of opportunities available, but he also uses ways that have never been used by anyone. It should be mentioned that studies of leadership have revealed the role of the “context intellect” – a special gift for catching the emerging business trends, interpreting them correctly, and using them in business. Knowing this, one can look for successful leaders within an organization while not relying exclusively on their previous achievements.

4 Results and Discussion

The today’s tasks in the sphere of accelerated development of Russia’s Far East were worded in the President’s order “On the Eastern economic forum.” In its program, three vectors were determined: “The new economic policy in the Russian Far East,” “Power of Russia’s Far East,” and “The future of the Asia-Pacific Region” (A guide to Russian business 2015). The necessity of accelerated innovation economic development of the Far Eastern region was determined by the fact that while being over 36% of the country’s area and with richest deposits of various natural resources

accumulated here, it is inhabited by 4.5% of the population of Russia, its share in Russia's gross domestic product is extremely small, and the status of the "Far Eastern outskirts" has become quite characteristic for it. This development strategy is supported by annual economic forums. In particular, in September 2017, Vladivostok is to host the third EEF, for which the tasks have been determined that confirm the strategy elaborated and the analysis of results of the previous years. The hallmark of the state strategy is focused on creating the 13 priority development areas (PDA) in nine subjects of the Far East of Russia which got the features of "growth areas" where favorable conditions for the development of business are being created. Adoption of the law "On the free port Vladivostok" involves the mechanisms of enterprises acting that are similar to those of the APR countries, which is designed to promote the attraction of foreign investors and innovation products manufacturers. The region is held out as an example of a new model of development in the direction of Russia's integration into the Asia-Pacific Region (Federal law "On the free port Vladivostok" dated 13.07.2015, No. 212-FL).

Accomplishment of these tasks is associated with activating the business whose features are determined by "leadership," in particular, attracting the people to the region under the "Far Eastern hectare" program. In actual practice, the promotion of state policy directions for supporting the entrepreneurship in subjects of Russia's Far East is quite complicated due to the administrative barriers created by officials of all levels of administration and due to the businessmen's mindset that is considerably slow response. Hence, time is essential for them to psychologically adapt to the change policy being conducted.

In the most developed subjects of the Far East, certain efforts are in place for finding the entrepreneurial leaders. So, one of the directions of revealing and forming the leadership skills with Primorsky Region entrepreneurs was the annual regional business award "Company of the year" and "Manager of the year" instituted in 2004. By 2007, the territory administration together with Zolotoy Rog Publishing Company has supplemented the initiative with new categories – "Socially responsible business" and "Developing business of Primorsky Region." The organizer and direct provider of the contest for the award is Zolotoy Rog Publishing Company assisted by the regional business community. The main objective of the contest is finding and awarding the brightest representatives of the business community of Primorye and establishing the principles of social partnership of business and the state in achieving the public accord within the territory while also focusing on the following aspects:

- Public awareness of the achievements of the leading regional companies and managers of the Primorsky Region
- Forming the principles of openness of the regional business and a positive image of an entrepreneur in Primorye citizens' public conscience
- Improving the investments and business climate in Primorsky Region
- Interaction of the public, business, and authorities in building a "comfortable environment" for life of Primorsky Region population

- Promoting the development of a civilized “competition environment” within the region

The Business-Award is a landmark event in the business life and an indicator of openness of the Primorye economy. The panel of experts consists of 50 independent professionals who are quite objective and competent in rating appraisals. For them, the criteria are not only the economic success but also the entrepreneurs’ contribution into the formation of a positive image of today’s “business face” of the Primorye territory. Traditionally, citizens of Primorye take an active part in voting, their opinion not always coinciding with those of experts, so it can be stated that the Business-Award is of public importance. In order to determine the rating score, TOP 25 short lists in each category are formed according to the results of the reporting year. The main criteria are the performance indicators of the business in the reporting year as compared to the level of the previous one, among them: the general profitability of activity, the dynamics of sales proceeds, the change of profitability of sales, and the net profit value for the last 2 years. For each category, there are further requirements that are determined by “Provision on holding the contest” hosted on the official website of the Business-Award DV-rating.ru. Thus, representatives of 100 largest companies generating over 60% of the gross regional product to replenish the regional budget of Primorye participate in the contest every year.

5 Conclusion

Thus, the historical time span studied can be determined as a complicated and controversial one; however this is a stage in the continued process of the rise of the Russian entrepreneurship. The difficulty of the leadership in business problem consists in the fact that in each certain region, in each company, and for each businessman, the formation of leadership skills depends on the entrepreneurial environment promoting the development of these traits of character. The today’s situation requires an ongoing process of self-education, self-improvement of the entrepreneurs, and searching for risk situations for innovation development of business. The processes are especially acutely sensed in the remote regions of Russia facing global strategic tasks; if they fulfill the tasks within the set terms, this can essentially change their role not only within the national market but also impart them a new importance at the world level. The power structures supporting and trying to develop the Far Eastern entrepreneurship gradually bring positive results demonstrated by the business (Pililyan 2015).

The methodological toolkit considered can be of use for further researchers, as the problem raised by the authors is quite relevant and laden with numerous directions for subsequent studies. In particular, personal features that are essential for forming the leadership skills and promoting the formation of innovation activity and the successful integration of Russia into the APR have to be addressed among the tasks of further studying the Far Eastern entrepreneurs.

Due to the limited scope of the paper, still little studied aspects of social and psychological image of the Far Eastern entrepreneurs, the main features of their mindset determining the behavior particularities, relationships with other social groups, and power structures could not be shown; however, all of these require a more profound study. The research problems of the culture of entrepreneurship remain relevant: in them, one cannot see a lot of business ethics and social responsibility, which generates destructive entrepreneurship. The phenomena observed in the directions of historians' research field who do not deal with the present-day problems are necessary for studying such an important aspect of the modern times, as they will allow identifying the image of entrepreneurship and its historical role in the development of Russia's Far East. The conceptual conclusion of this study includes the statement that any success of the Far Eastern entrepreneurship is impossible without its "co-development" with the business world of the APR countries, due to the special geopolitical situation of the Far East of Russia. For cooperation, quite an important role is played by the formation of entrepreneurial culture and leadership skills in businessmen.

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Evolution Prospects of Russian Public Administration System: From Sacredness of Power to Effective Management Practices



Konstantin Vodenko, Sergey Chernykh, and Olga Ivanchenko

Abstract The objective of the paper consists in forecasting further prospects of evolution of the Russian public administration system through the lens of the power relations that have formed in the country, in particular, the syncretism of power, property, and administration. The method of studying the problem is based on the theory of institutional matrices that was given ground in the works of Polanyi (1977, *The livelihood of man (studies in social discontinuity)*. Academic, New York), North (1979, *Explor Econ Hist* 16:249–259; 1981, *Structure and change in economic history*. Northon, New York) and Kirdina (1998, *Russian sociology today*. Institute of Sociology, Moscow). The results of the research reflect the main trends of the Russian public administration system that have become more pronounced against the background of aggravated economic crisis under the sanctions policy adopted by the leading Western countries. In conclusion it is pointed out that the stage of governmentalization of the economic and political sphere of the Russian society is close to its limit, so for increasing the efficiency of administration in the strategic prospect, the institutional management practices have to be introduced that are oriented to rendering the power non-sacral and rationalized in the interests of the civil society.

1 Introduction

While studying the practices of ownership and administration in Russia and supposing the possible prospects of their further transformation, it has to be borne in mind that the processes of institutionalization in power, property, and administration relations include the compulsory legitimation that is implemented in some forms or others and that ensures bilateral communication between the state, business, and the active part of the civil society on the basis of a broad social consensus and class compromise.

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The specific features of development of the Russian society are quite interesting for social subjects within which attempts are made to comprehend problems of the public administration system that are associated with institutional processes of transformation of power in the post-Communist era taking place under risks increasing due to globalization and controversies of the world geopolitics. Meanwhile, the basic institutional matrices that have been formed for centuries go on influencing both their economic activity and the political practices at the same time supporting the reproduction of established norms and behavior patterns.

The “middle class” that has private property and is capable enough of showing political subjectness, including one in questions of actually choosing the political power, is the catalyst for development of the civil society. Alongside with that, the prolonged stage of authoritarian government in the country formed a peculiar daily life culture of subordination to the power. The latter is based on the idea about the upgrade of Russia’s power institutions toward a much higher democratization being extremely difficult, with the idea being widespread in the public conscience as quite a stable worldview pattern.

The transformation of the Russian public administration system relies on certain cultural and worldview aspects of domination that may also undergo change and the relevant adjustment in accordance with the requirements of the current social project. The world competitive struggle processes ratchet up pressure on the Russian public administration system, as a result of which the need of introducing the efficient management practices runs high.

Together with this, the growth of efficiency of administration in Russia is hindered by the cumbersome national bureaucracy that in the recent time has been consistently oriented rather to sacralization of power than to rationalization thereof.

Despite a number of essential institutional transformations achieved in the recent three decades, with the process of privatization of property and emergence of large Russian corporations having become pivotal, the country is still lagging behind the developed countries in terms of labor organization and especially of ensuring the efficient functioning of legal institutions.

2 Literature Review

Within the topic of the research worked out, the works by Durkheim (1995) and Parsons and Smelser (1956) presented under the structural and functional approach have to be taken into account. The processes of interaction of the economic basis and the political superstructure of public administration system were studied by Marxian class theory by Marx and Engels (1960). Weber (2014) analyzed the specific nature of rationalization of power, the formation of bureaucratic ethos, and power legitimating forms in detail in his works. Collins (2004) studied the state administration against macrohistoric processes.

The problems put up in the paper that are associated with differentiation of political and economic systems and particularities of their functioning were

elaborated in the works of the Russian and foreign institutionalists such as Polanyi (1977), Leberstein (1978), North (1979, 1981), Nureev (2010), Yu and Latov (2010), Bessonova (1999), and Kirdina (1998, 2014). The problem of efficiency of the governmental intervention into the economy, given the coordinated bureaucratic apparatus and the relative autonomy of the state from the interests of the ruling class, was developed in the works of Evans et al. (1985).

3 Research Methods

The theoretical and methodological basis of the paper was made up using the following trends. The neo-institutional approach (North 1979; Polanyi 1977) has allowed reflecting on the integrated interaction of the institutions of the economy, politics, and culture within the structure of the national administration of the Russian society. The X and Y theory by Kirdina (2014) has opened up the opportunity to analyze the prospects of evolution of the Russian public administration system within the context of dialectic interaction of the largest institutional matrices in the Russian society.

The authors also applied the attitudes originating from Weber's (2014) "interpretive" sociology, which is due to the necessity to determine the influence of the Russian political culture (that was formed under authoritarian conditions for a prolonged span of history) on the administration practices. The conceptual elements of Marxian theory allowed shedding light on the class-related controversies of the contemporary Russian society and revealing the conflict between productive forces and productive relations.

4 Results and Discussion

In Russia, after the demise of the Soviet Union, prerequisites were created for the economy to develop according to capitalist type and for the civil society to rise relying on democratization of the leading political institutions. However, despite a number of economic and political reforms, the country keeps lagging behind from the leading states of the world in terms of labor organization, social support of the population, and introduction of efficient legal institutions.

The confidence in big business and private property ownership remains low, which affects the citizens' perception of the entire national capitalism system sizeably. In case the market lacks the institutional guarantees of legal bases of property, transaction costs grow excessively, as a result of which the market ceases to efficiently distribute its resources (North 1979). The sociological survey having been conducted in the country shows that the majority of Russians still perceive the results of the 1990s' privatization as exceptionally unfair, which puts further internal

pressure on legitimacy of not only the private property institution but also of the entire hierarchy of authorities (Gorshkov 2016).

So, the confidence in the authorities is an inseparable condition for social solidarity and efficient management in the sphere of innovation development. This is why the power has to necessarily imply justice as its foundation – justice being a condition for forming the integrity of legal relations (North 1981). Therefore, the authors believe that the newly introduced institutions or the ones being upgraded have to be *recognized* as legitimate ones by the population or at least by the significant part thereof in a compulsory manner, proceeding first of all from the customary cultural prerequisites (Lebenstein 1978). For the purposes of theoretical analysis of the range of problems under consideration, Weber's theory has not lost its heuristic value; it offers the threefold typology of legitimation of power (Weber 2014). The institutions themselves always imply legitimacy and a minimum level of confidence in them on the part of the society as a necessary condition for their functioning (Parsons and Smelser 1956).

The particularities of Russia's public administration keep being influenced by the controversy existing between the liberal theory and the ideocratic domination practices rooted in the Russian power structures.

It is the access to power that acts as the main source of achieving the welfare and ensures the protection of the private business and property. With regard to this, beginning from the 2000s, the ruling circles have successfully mastered the imperial (statist) discourse as their main ideological tool for influencing the masses. Should no real corruption-counteracting program to deal with the all-out embezzlement of the federal budget funds be adopted, the ruling authorities drawing the attention to the importance of so-called traditional (conservative) values for the purposes of upbringing the country's citizens in the spirit of patriotism may well turn into ritualized rhetorics – one designed to conceal the structural controversies in the economy and the Russian officialdom's poor efficiency of management.

The functioning of the Russian public administration system relies on certain cultural and worldview patterns that can also be transformed and undergo the relevant adjustment in accordance with the requirements of the current social project. With regard to this, the upgrade of the national public administration system involves creation of conditions for the bureaucratic apparatus of the executive power to be essentially put away from directly intervening into the activity of large corporations, with their dictate for small-scale and medium business to be reduced. However, it is also the autonomy of the judiciary that has to be ensured, in order to enable it to make independent decisions that are first and foremost oriented to the Constitution and not to the ruling elite's interests.

Turning to the experience of upgrade of the Russian society, it can be noted that in Russia the transformations would often have the "revolutionary" character, being performed by "spurts" that are often accompanied by "strains" and "breakdowns" of the previous ways of life that were considered to be traditional ones. Among the brightest examples of "spurts," i.e., essentially revolutionary transformations accompanied by "breakdowns" of previous traditions, the reforms of both Peter the Great

and the Bolsheviks headed by V. I. Lenin can be cited; they surely had charisma as worded by Weber (Pipes 1972).

Nevertheless, the revolutionary changes occurring in the Russian society after completion of a number of successful reforms were always to interact with the persistent sets of traditional worldview (collectivist, paternalist, etc.) ideas about power, administration, and management, and they clashed with the inertia of daily life culture of the past. This is why in Russia even the recognized power having real renown would as a rule be either of charismatic or of traditional nature. Hence, *firstly*, there follows the Russian ruling elite's frequently authoritarian character that is mainly supported by traditional and charismatic-type legitimations. *Secondly*, the Russian society obviously lacks the legal order, which is expressed both in the weakness of the judiciary and its dependence on the executive power and in the absence of an integral program of evolutionary upgrade (Vodenko et al. 2016a, b).

So, the Russian middle class represents a largely heterogeneous slice of the population including the *core* and the *periphery*, relying upon the highly educated citizens having an average income and professionals employed mainly in the intellectual labor sphere and having a high extent of self-identification promoting self-esteem.

As compared to its Western peers, the Russian middle class formed in different historical and political conditions and, most importantly, within different chronological limits. Up to the Bolshevik revolution, despite the upgrade of the country, the Russian Empire had failed to form a bourgeois society that would be up to standards of the developed Western countries. All the more so it could not rise under authoritarianism and dictatorship of the Soviet regime which repressed dissent, private initiative, and freedom of economic enterprise in every way possible, even though it had quite important scientific, technical, and social achievements.

The duality of the middle class (the bourgeoisie) conditioned by its history has to be borne in mind: it can act as the pillar of stability and order if the class-related compromise is observed and welfare is increased – and on the contrary, it can be the subject of bourgeois (civil) revolutions under an acute crisis in the system of distribution of resources, power, and administration. The external geopolitical pressure can only fuel the emerging trends, especially if there are aggravated controversies and conflicts among the elites (Collins 2004). Meanwhile, as the overall daily life consumption decreases and previous consumerism practices are rejected, this may lead to the frustration of quite numerous groups of population, especially ones coming from the middle-class environment; already nowadays, this results in their lower loyalty to the current power. The middle class having a high level of legal awareness and a capacity for private initiative appears to keep its protest potential, and the latter can be channeled by anti-corruption actions.

In Russia, the center of *power* is highly *sacralized*; it is at times perceived as a benefit or a gift from above. Meanwhile, the fear of being deprived of the state sovereignty if the hierarchy of power suddenly begins to weaken prevails in the mass conscience, and the very system of power relations can become highly decentralized in the prejudice of the country's territorial integrity. So in such a system, the economic and political subjects have to interact with the compulsory condition of

approvals being passed by the center – this is similar to the storage-cum-redistribution model described by Polanyi (1977) concerning the redistributive-type systems. The Russian power structures are obviously quite hierarchy-minded, which poses an essential obstacle to intensification of the civil initiative and the ongoing communication of the officials with the country's active population who are interested in real upgrade transformations.

The sacrality of the Russian top power is in much conditioned by the customary communal nature of the institutional matrix and the fact of the country's population having recognized the *institution of appointment* in the prejudice of the democratic elections institution, which renders it more difficult to control the activity of high-ranking managers and administrators of state corporations (Bessonova 1999). This gives evidence about the existence of a special tradition of power in which the ruler is perceived as the "tsar" sent by God and having such a symbolic capital as to prevent the state from collapsing into chaos. Essentially, it is the Orthodox Byzantine eschatological idea about the ruler being the katechon (from Greek ὁ κατέχων – "the one who withholds") that goes on being reproduced in the Russian public administration system, i.e., a sacral actor preventing the states from demise if affected by the "dark" powers. It is hence that the conspiratorial visions originate from ones about a plot particularly against Russia (and the Orthodox Christianity) made up by the collective West that are widespread among Russians.

Thus, the directive management by the central authority is of redistributive nature, and it leads to financial resources being redistributed between the Russian regions extremely unevenly, proceeding mainly from political preferences but not from economic requirements. However, the country's upgrade implies secularization too that at the current stage of development of the society has to be understood as not only separation of religion or totalitarian ideology (as it was the case in the USSR times) from the state but also as "unspelling" the power in line with the efficient management practices controlled by the civil society institutions.

The *subsidiarity* principle is far not completely implemented in practice in the national administration system, which is due to the federation subjects and municipal formations financially depending on the central authority quite hard (Vodenko et al. 2016a, b). The use of efficient management practices both in the public and in the private sectors is of a random and highly segmented nature, which is confirmed by the recent years' problems of the Russian economy. As a result, looking for the truth, the country's destitute citizens have to keep appealing to the higher authorities, as if skipping the "lowest" and "middle" administration levels, using for that the so-called institution of applying from instance to instance (Kirdina 1998).

In Russia, the authorities still inherit the administration principles which were characteristic for the Soviet party establishment and in which politically faithful actions clearly tend to prevail over the interests of the efficient management. The ruling elite's request for sacralization of the power hinders the processes of rationalization of administration considerably, creating obstacles for controlling the higher officials "from the bottom upward." So the order that has been formed in the recent years can be designated as the syncretism of power, property, and

administration (Vodenko et al. 2016a, b) in which it is not only the Soviet but in much the precapitalist forms of social administration too that are reproduced.

5 Conclusion

Thus, the public administration system that has formed can guarantee the private property rights to a much smaller extent than, e.g., one of the Western countries. In Russia, large property may fairly quickly get into the hands of private owners, mainly with powerful administrative leverage available, but just as “suddenly” it may be forfeited in case of the prevailing authorities losing the political confidence in the owners (Nureev and Latov 2010).

To a large extent associated with the sanctions policy adopted by the Western countries toward Russia as well as with the internal structural problems, the recent years’ crisis trends have considerably revealed the flaws of the national public administration system. First of all, the following ones may be named among them: overall rigidity of the Russian administration system, a lack of democratic administration forms at all the decision-making levels, and the higher officials being out of touch with the lowest administration links. Alongside with that, the civil society institutions do not have a full-fledged control over the high-ranking Russian officialdom, the latter bearing hardly any personal responsibility for inefficient usage of budget funds. Similarly, formal rationality is reinforced in prejudice of substantial rationality; there is a crisis in strategic planning and a lack of vision as for the society’s future development prospects.

The significant (greater) part of the Russian society depending on the redistributive national economy system, a lack of political prospects, and social and cultural practices of service labor prevailing are to quite an extent a wet blanket for political activity of the middle class, for its ability to put forward revolutionary projects. Yet, bearing in mind the institutional determinants (particularities of the institutional matrices) of development of the Russian society, it has to be pointed out that within the Russian middle class, the innovation value references are formed toward the interaction of the state and the civil society (Vodenko et al. 2016a, b).

Thus, following Kirdina’s (2014) X and Y theory to a large extent, several fundamental evolution periods can be singled out for the Russian public administration system.

The first stage of the transformations fell for the 1990s. In reforms of this span of history, the trends of institutional “Westernization” (Y matrix) were the most pronounced. In economy, it was privatization accompanied by the reduced governmental intervention into the large private capital’s business; in politics, it involved federalization. In ideology, it brought along the pluralism of opinions against the background of the values of individualism and universalism being introduced actively. However, it has to be reminded that the first upgrade stage took place under the wide-sweeping criminalization of the entire Russian society, with many

processes associated with the use of liberal administration practices either having a fairly declarative nature or being a mere imitation.

The second stage that took place so early as from the beginning of the millennium was essentially characterized by a gradual revenge of the institutional X-matrix typologically associated with the “Eastern despotism” concept. In it, the role of the state in the economy skyrocketed, and the high-ranking officialdom consolidated their positions. In the political sphere, the power vertical was reinforced that actually began to block federalism that nominally existed in Russia and as abruptly one political party became the prevailing one. In ideology, the holistic trends of patriotism, collectivism, and group values of a special (unique) path of Russia were intensified.

Currently, i.e., especially after accession of the Crimea and complication of relations with the USA and the European Union, the maximum action of X-matrix institutions in all the spheres of functioning of the Russian society can be stated. However, it occurs against the economic crisis and the actual shrinkage of income of the population, the representatives of the middle class included. Hence it can be said that the overwhelming governmentalization of the national administration system is close to its own limit, with the entire society being highly loaded ideologically and the ruling elite actively countering the democratization of the country.

Whatever way for development the Russian society may choose further on, the revolutionary or the evolutionary one, in the nearest future, the public administration system will need to actively involve the institutional practices of management which are characteristic for Y matrix. The situation having formed makes the pending need ever more urgent, that of democratization, federalization of the country, and of legitimation of the new class-related compromise. It also puts forward the tasks on liberalization of the economy and rationalization of actions of the authorities, with the control over them on the part of the civil society to be reinforced and the subsidiarity principle to be applied in reality.

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Russian Scientific and Educational Journalism Schools: Leadership in Polycentric Paradigm



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Abstract The article is aimed at revealing peculiarities of Russian journalism institutions as unique scientific and educational schools within polycentric paradigm of analysis. In this paradigm, differently appears the problem of leadership which is usually considered in one-centric coordinate system. Authors make comparison of scientific and educational schools in Russia and abroad and describe the main national traditions in journalism studies and teaching. The analysis shows that the Russian educational school has a long history, an extensive structure of institutions, and deep roots in the theory. It seems especially important that academia meets support in professional ideology and the current practice of the journalistic community. The last conclusion was done on the data of nationwide survey on the journalists' representations on the profession and the professional community. The civilizational-cultural approach to journalism education, which is in use in the article, denies the center-peripheries hierarchy in the worldwide interaction and promotes the real internationalization and exchange of useful experience between countries.

1 Introduction

First of all, there is a need to explain the meaning and essence of the reference term we use in the paper. By common custom, scientific schools and educational (or pedagogical) schools exist as, though separately, as phenomena and notions in academic vocabulary. As for Russia, it's quite typical to combine them in practices as well as in theory. National experience is characterized by the symbiosis of science and education, because traditionally, the science coexists at the university departments with teaching and professional training. In Russian language, the following expression sounds highly organically (in our translation): "Certainly, scientific and

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scientific and pedagogical schools in the national higher educational institutions are our national heritage” (Vladimirov 2013: 4). Such an idea belongs to Albert Vladimirov (2013) as a president of famous Gubkin Russian State University of Oil and Gas. He stresses the peculiarity of this kind of institutions in divergence from classic scientific schools: “Programs of professional and educational (scientific and pedagogical) schools includes the writing of manuals and textbooks, which provide forming new professional knowledge for certain theoretical direction” (Vladimirov 2013: 8). The Ukrainian researcher tries to express this merging in his article in English: “The scientific-pedagogical school . . . personifies the unity of the scientific and educational process as an indispensable basis of modern university education” (Khorunzyi 2012: 20). We prefer using the combination of words “scientific and educational schools” that correctly shows the sense of the science and education interaction in Russian universities.

The synthesis of this kind is particularly clearly seen in the field of journalism, because there is no tradition of establishing autonomous research institutions, in contrast, on the one hand, from other academic fields and disciplines (philology, sociology, psychology, etc.) and, on the other hand, Western European and American states, where there are large research institutes of communication profile (e.g., Institute of Communications Research, founded by W. Schramm in the United States). From another side, theoretical and training activity is tightly connected with professional media practice which, in turn, has evident national-specific nature. Such rather uncommon arrangement of Russian educational institutions makes it difficult their comparison with foreign universities in the theory and research dimensions. How to evaluate the position of native scholars and schools in global rankings? By a long tradition, the producing and disseminating media theories are being taken into account. In this regard, Denis McQuail (2009) wrote that analyzing the field of media and communication in Europe “means ignoring the elephant in the living room, in this case the United States, since the field . . . history in Europe can also be seen as a matter of adoption . . . of the dominant American paradigm in the years after World War II” (McQuail 2009: 282). The corresponding list of the world leading national schools was composed. John Downing (1996) mentioned, besides Britain and the United States, Germany, France, and Italy, although there was the rapid growth of media studies in the Canadian and Australian academies. McQuail (2009) proposed similar list of original national schools in Europe: France and the francophone area, the United Kingdom, Germany, the Scandinavian region, and the Mediterranean region with Italy leading and Spain following. Of course, there is no Russia among these counties.

Obviously, the division on leaders (centers) and periphery was introduced. The problem is of great importance not for Russian journalism schools only but also for many countries of Central and Eastern Europe. This was the reason of the CEECOM (Central and Eastern European Communication and Media) Consortium conference “Critique of/at/on periphery?” The conference theme was questioning the concept of periphery to which CEE as a region is collectively (self)relegated to, as well as opening up the question who is allowed to speak from or on behalf of the periphery (CEECOM 2017: 2). Thus, issues of relationships between leaders and so-called outsiders are on current agenda for journalism schools in Europe, not to mention Russia.

2 Problem Questions and Methodology

Few sensitive questions arise in the above-described context. To what degree the existing ranking module is correct for realistic reflection of the world map of journalism education and theory? Whether there is an alternative system of coordinates for solving such a task? How the map would change in case of alternative measurement? At last, can the Russian schools of journalism pretend on a prominent place among other national institutions in the world?

To get answers, one firstly has to examine the existing module of evaluation. The main methodological decision relates to paradigmatic choice. Actual relationship between leaders and peripheries was based on the one-centric paradigm, namely, on the Anglo-Saxon domination in world academia. This approach inevitably leads to permanent asymmetry in the interaction between various national intellectual communities. Other relations would be seen if choosing a polycentric paradigm which is based on the civilization approach to the journalism theorizing and educating. Civilizations are “cultures which have various structural arrangements influencing the dynamics of knowledge creation” (Shirokanova 2012: 270). This means each national civilization creates its own module of journalism theory, education, and practices which correlates with specific cultural roots, customs, values, etc. Journalism is a cell of civilizational-cultural network. Respectively, a lot of centers appear in the world instead of installing the center-peripheries hierarchy forever.

On this methodological background, the paper is aimed at revealing peculiarities of Russian journalism institutions as unique scientific and educational schools within polycentric paradigm of analysis. Few specific research methods are in use to achieve the aim. Among them there are comparative analysis of scientific and educational schools in Russia and abroad, the comprehensive description of the theoretical tradition in journalism studies in Russia, the analytical overview of the journalism schools development in this country, and others.

3 Analysis and Discussion

According to the QS World University Rankings 2015 in the Communication and Media Studies area, the highest research impacts belong primarily to the US institutions: the Ohio State University, Stanford University, Michigan State University, Cornell University; in Europe, the following order was built: University of Amsterdam, London School of Economics and Political Science, Loughborough University, University of Copenhagen, University of Helsinki, etc. From Russia, only Lomonosov Moscow State University entered the Top 200 (QS World University Rankings by Subject 2015). However this lack of positions occurs under the influence of extra-scientific factors. First, world rankings are built on the basis of frequency of citation, which reveals modern research trends and directions of research attention, not content and qualitative characteristics of projects, and this

methodic leads to the biased estimation. Second, the “Journalism” subject area is not represented in the rating systems; it is dissolved in “Communication and Media Studies” and “Arts and Humanities,” where a priori dominate foreign authors, on the one hand, and neighboring to journalism fields of knowledge, on the other hand. Third, Russia almost doesn’t have journals in the “Communication and Media Studies” field which are registered in the Scopus database. Thus, articles of the researchers in journalism, as a rule, are being published and recorded in other disciplines’ journals. For example, from 62 publications of the staff of Saint Petersburg School of Journalism and Mass Communications in the Scopus database (rather lot), 30 are placed in “Social Sciences” (including “Communication” – 1), 20 in “Arts and Humanities” (including language, history, philosophy, religion, etc.), 19 in “Business, Management and Accounting,” 11 in “Economics, Econometrics, and Finance,” etc. The solution can be found in establishing national journals of needed profiles, which will be registered to leading scientometric indexes.

But citation indexes do not directly relate to polycentric paradigm of analysis. For this approach, it is crucially important that during the long time, a peculiar theoretical and educational model was being formed in Russian journalism, so evaluation should include additional parameters, such as infrastructure, continuity of school tradition, number and diversity of courses, textbook quality, etc., relevant to the case. Historically, Soviet universities developed relatively autonomously from the Western traditions in journalism studies. That’s why journalism reflects general trend: “Social science in Russia is not internationally ‘convertible’” (Shirokanova 2012: 269).

As a result, the holistic theoretical and educational network has been developed on a high level. Some significant differences from the West Elena Vartanova (2017) underlined:

The theoretical understanding of journalism not as a social institution ... but as a profession through its standards and skills of professional journalists ... in foreign studies has emerged only in recent years. Here it turns out that the domestic theory of mass media, highlighting the journalism of content overtook the Western schools ... In this regard we have moved away from the Western tradition, where there was the theory of mass communications that describes the structure, channels, institutions, but not the genres, not the mission, not the duties of journalists. (Vartanova 2017: 11)

From the organization and structure side, our journalism education is characterized by several notable features:

- Long tradition and great human resources for theoretical journalism studies. The first respectable school, State Institute of Journalism, was formed in the early 1920s, and its rector K. P. Novitsky started the development of journalism as an especial area of science (Fateeva 2007: 107).
- Well-developed infrastructure, which includes 151 journalism educational organizations in Russia today (Journalism Educational and Methodical Council 2015).

- Fundamental textbooks in all academic disciplines (which often are actually monographs) such as history, sociology, philology, psychology, political science [and so on] of journalism.
- A number of university departments which meet the criteria of academic school, namely, the continuity of ideas, outstanding leaders, like-minded team, and others (Universities of Moscow, St. Petersburg, Voronezh, Ural, etc.).

It should be emphasized that they are institutions specialized on journalism, not subdivisions at political science or sociology departments as it is normally done in many countries of the West. In tight links with the students' training, the process of educating teachers and researchers is arranged. Based on the unique world community model, academic degrees in journalism are established in Russia with two disciplinary options – philology and political science. The model presupposes conceptual understanding of journalism as such, and not as an object of observation for neighboring scientific disciplines.

The same division is typical for forming the so-called border disciplines (in science and teaching) within complex studying journalism. For example, for Russia, the typical name is sociology of journalism, whereas in the West (primarily in the United States), media sociology, filled with mostly empirical methods, thanks to P. Lazarsfeld, R. Merton, and other prominent functionalists. By the way, in current literature, the suggestions may be found on theoretical refining predominant model of communication, “abandoning the functionalistic perspective of most of the sociological works originating in the United States” (Sodré 2014: 125). Something similar should be said concerning shaping the political science (politology) of journalism. As a relatively independent branch of the theory, it gradually began to develop in Russian universities after the World War II; in the early 2000s, its final conceptualization occurred, in particular, due to focused efforts of the St. Petersburg University's scholars. More specifically, there were determined the content and scope of studies, the basic understanding as the set of views on the press's roles in the political systems, the character of the journalism political functioning, and its political relationships; methods of applied usage of the discipline were also systematized (Journalism in the space of politics: research approaches and practice of participation 2004). On this conceptual basis, “political journalism” master course (St. Petersburg University) was built. There are no such precedents abroad.

The relative autonomy of Russian journalism schools from the Western theoretical mainstream stimulated them to develop their own ideas on the profession's mission and its interaction with social reality. In particular, Russia traditionally cultivated an active, transforming attitude to problematic situations, in contrast to Western canons of objectivity, neutrality, and detachment of the press. Should remark, these canons are now increasingly questioned in the literature. So, an American professor argues: “Objectivity still is required for much of science. In fact, the scientific method is designed to remove the subjective elements from re-search. . . . But we have taken objectivity into realms where it really should not go. For example . . . the claim that reporting is objective is not just wrong but seriously misleading” (Weinberger 2009). Meanwhile the following statement

Table 1 Russian journalists about professional roles of the journalist

Professional role	%
Enlightenment journalism	
Provider of information, navigator	66
Commentator, analyst	65
Moderator of dialogue	58
Generator of ideas	45
Translator of opinions	38
Participation journalism	
Assistant, consultant	39
Critic, accuser	32
Controller	29
Influence journalism	
Enlightener	30
Educator	15
Ideologist, propagandist	9
Lobbyist	1
Other	
Chronicler, historian	19
Entertainer, showman	10

Source: The Journalists' Representations on the Profession and the Professional Community (2017)

looks more typical: “Traditional western ideals of objectivity and impartiality seem to dominate many newsrooms” (Nygren 2012: 6). Many scholars and teachers in Russia think in a different way as well as media professionals. Nationwide survey “The journalists’ representations on the profession and the professional community” done by the research group “Zircon” in autumn 2016 shows that the media community in Russia thinks and acts according to the traditional journalism of action (Table 1). Contrary to standards of journalism “above the fray,” the enlightenment and participation prevail among the professional motivations. The role of chronicler and historian which correlates with objectivity attracts only 19% of recipients. Remarkably, the advocacy which regarded as ethics violation in the Western theories gains support of the target audiences in Russia (Berezhnaia 2017).

Thus, in Russia, by the set of significant parameters, there was established original system of journalism education, which is inextricably linked with national science and media practice. Special studies show that for successful development, it needs stability based on its own principles (Khubetsova et al. 2015). This means full convergence with the Western education schools is unlikely in the foreseeable future. Therefore, once again, the question may arise: is this civilizational model better or worse than Anglo-Saxon mainstream or any other national system?

We think this is a wrong question. In the frame of polycentric model, the multi-directed knowledge exchange has prior importance and development potentiality. The idea correlates with the de-Westernization and internationalization vectors in the global media research field (Internationalizing media studies 2009; Waisbord 2013;

Wasserman and de Beer 2009). The proponents of this conception call for inclusion of theoretical voices from different countries in common global ensemble for (1) equal cooperation and (2) saving dominant theoretical schools which are in danger because of their own monopoly position. As Jan Ekecrantz (2007) wrote: “Media studies shares with sociology and political science difficulties in coming to grips with the realities of a transnationalized and transforming world. One explanation is a certain, lingering ‘methodological nationalism’... implying that the nation state still provides the presupposed and mostly implicit conceptual frame...” (Ekecrantz 2007: 170). Russian scientists would not want to deserve accusations in methodological nationalism in relation to the field of activity of scientific and educational schools. But equally non-prospective is the position of those Western theorists who would defend the absolute priority of their concepts and experience in the one-centric global space.

4 Conclusion

Polycentric paradigm based on the civilization approach to journalism theorizing and education has a certain perspective in the globalized world proposing more balanced model (comparing with the one-centric paradigm) in the media studying and teaching; it includes national traditions and peculiarities, as well as main and dominant research schools. In this paradigm, Russia occurs to be one of the centers (leaders) of international cooperation in the field of journalism (science and training). National school has a long history, an extensive structure of institutions, and deep roots in the theory. It is especially important that academia meets support in professional ideology and the current practice of the journalistic community. Being involved in scientific activities of the West partners, Russian universities adopt international experience and advantages for their benefit. They are ready for priority compromises that mean the maintenance of national principles of educational activities, combined with the openness to external relations and achievements. Further multilateral convergence and feedback are ways to mutual beneficial exchange.

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Leadership in Social Service Organizations



Evgeny Guryev, Oksana Ivanova, and Diana Faizova

Abstract The relevance of the research depends on the growing demand in social work specialists, initiative, and enterprising leaders as well as rising prestige of this profession in the society. In the article a special stress is put on revealing the obstacles for professional and personal growth and efficient functioning of social workers and leaders in different social service organizations. The research is based on the structural, functional, and interaction approaches that allow comprehensive analysis of the functions of social worker and leaders' activities and behavior. The facts have been given to confirm the bureaucratization of the social service system in Russia. It is stated that nonprofit organizations provide a good ground for leaders' promotion. The article is of practical value for social service administrators, social work specialists, and students.

1 Introduction

The problems of leadership do not lose their relevance for many decades in Russia. The present research is generated by the growing requirements for the profession of social worker and a great demand for effective managers and competent and initiative leaders who could minimize manifestations of bureaucracy in this sphere. Practical and theoretical knowledge in the sphere of management in social service organizations is of great importance. Unfortunately, social work researchers today are mostly theoreticians and as a rule are not practitioners and have no experience in social services therefore are not able to develop effective recommendations that

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could affect this sphere in general. As Mosley and Smith (2016) correctly noticed, social services grow quicker than our knowledge of them.

The emergence of such profession as a social worker was necessary and logical as it plays a role of the mediator between individuals, social groups, private, and state organizations (Novels and Yarskaya-Smirnova 2007). The famous researcher in the field of history of social work Shulte (2005) marked out five signs and problems of this profession. They are:

1. Professional solution of social problems
2. Introduction of the model of gender pluralism in the society
3. Fight for human rights
4. Intermediation between social and political movements
5. Mediation between the settlement of cross-cultural conflicts between the rich and the poor, native persons and migrants, etc.

But D. Shulte emphasizes that “social work always had two-faced essence: on the one hand, it is a kind of face of mercy and welfare, solidarity with the person, and on the other hand, a rigorous face of official control, assessing the people’s needs, checks of life, habits, household, education” (Shulte 2005: 32).

Incomplete 30 years of existence of the system of social work in Russia made obvious a lot of issues rooted in the professional education. The profession did not get stronger, but discredited in public opinion. Specialists in social work perform bureaucratic functions, and conservative and depersonalized bureaucratic environment does not generate the leaders at all. Each social service should be able to enforce the leadership management, use social resources of leadership in its practice (Makarov 2006). It should be taken into account that for the client, the social worker is a leader, the one who leads and helps to find a way out of crisis.

Several points contain information which indirectly indicates that leadership skills in social work are highly demanded. Thus, according to the Code of Ethics social workers are called to bear personal responsibility for the results of the activity and stimulate participation of volunteers, mostly among the youth in the activities of social service institutions for providing necessary social services to clients. That is why a social worker is thought as the organizer of volunteer activity and the head or ideological inspirer for a group of volunteers.

2 Literature Review

The problems of organizational leadership were researched in the works of Druker (2012), Mintsberg (2004), Shane (2002), Zaleznik (2014), Shagiakhmetova (2013), Galenko (2007), Makarov (2006), Tomlinson et al. (2013), and Ford et al. (2017). Psychological aspects of leadership were considered by Zankovsky (2011). A complex research of leadership in the modern social and political thought was conducted by Kudryashova (1996). There are not so many works devoted to the management in social service organizations in Russia, but there are enough in the

west. One of the most outstanding is by Austin (2002) and is devoted to the general questions on sociology of profession and professionalization.

Leadership is constituted as a result of a unity of three factors: personal traits of the leader; nature of the group and its members; a problem which the group has to solve (Kudryashova 1996). Leadership is characterized by the ability to mobilize for the solution of tasks facing the group (Makarov 2006). Leadership can be understood as an administrative capital, social skill which can be developed and improved (Tomlinson et al. 2013). Thus, the leader is the image of the organization, the conductor of corporate values and culture (Zankovsky 2011). In the western tradition the leader is the person allocated with the power, leading the organization to success, but the leader should be creative (Druker 2012). In the view of Zaleznik (2014), the administrator is a key element of the formal organization, and the leader reveals oneself in informal communication. As usual the leader is a role model for a group. And it is the undoubted benefit for the organization when the administrator has leadership skills. Even the way the leader looks and his/her artistry are relevant for personal and organizational image (Ford et al. 2017).

3 Research Background and Methodology

When doing the research, it was taken into account that administrators in social organizations have to take measures for the unification of their personal behavior, set an example of honesty, impartiality, and justice, and thus form a new leader's behavior model. The leader in social organizations is the one who offers a pattern. Labor functions of specialists in social work which can also be qualified as leaders are listed in their professional standard "Specialist in Social Work." It is clearly indicated that social worker should:

- Provide the realization of the self-help and mutual aid
- Promote mobilization of people's own resources
- Help to overcome a difficult life situation
- Motivate recipients of social help to active participation in the implementation of the individual program of providing social services
- Use social service innovative technologies

The heads of social services, according to the standard, perform, first of all, organizational and control functions. Also, they have to be able to develop social projects (programs), carry out supervision, and prepare offers on the formation of social policy and development of social services. It is obvious that all these skills have to be inherent in creative and initiative leaders.

Thus, administration by social services is a difficult and multipurpose process; role enrollment of the head varies in a wide range from the social psychologist penetrating into the smallest details of the specifics of social work to the manager solving organizational functions whose efficiency in a workplace depends on the development of his/her leadership abilities and skills.

This research was based on the methodology of structural functionalism and interactionism. It was also necessary to apply a holistic interdisciplinary approach to research. The empirical materials were obtained through questionnaires and interviews with the professionals and experts, analysis of documents, and contents of professional forums of social workers in Russia.

4 Results and Discussion

Within the research it was stated that the formation and promotion of leaders in social work are interfered by the bureaucratization of its system. Zaleznik (2014) emphasized that the formalized bureaucratic environment prevents the formation of leaders. The specialist in social work in Russia is the employee who is professionally engaged in management. The professional standard and the ethical code exist, but not really used that much; however it is really desirable. The staff shortage and low wages do not provide the opportunity for strict professional selection; therefore, the cases of professional unsuitability in social work are frequent. Many authors consider that social work is associated with both positive and negative features in spite of its valuable social potential (Yarskaya-Smirnova and Romanov 2014; Lipsky 1969). They point at the latent function of social service system that dominates and leads to the development of the system in its own interests to a large extent, but not for the sake of the declared public benefit. Thus, the problems in the sphere of provision of service to pensioners, unemployed, or difficult teenagers are less cared than demonstration of compliance of the public policy to the international standards of social right, justification of the public expenditures on social needs. However, people, especially those “working poor,” need the state to show more care about them.

Yarskaya-Smirnova and Romanov (2014) are perhaps one of the few who write about social work without euphemisms and reveal the problems. These authors fairly note that “in the social services employees show carelessness and frequently also roughness, seek to get rid of long communication with clients, in some cases – to reduce a number of repeated visits, to avoid difficult situations which are not standard and also do not care much for the image of the profession” (Novels and Yarskaya-Smirnova 2012: 119). The developed system of social service, being bureaucratic in essence, promotes social inequality and stigmatization of some categories of citizens, as the reasons of dysfunctions in social work researchers note the lack of funding (Novels and Yarskaya-Smirnova 2007).

In the works of foreign scientists, social workers are quite often associated with bureaucracy. According to the conclusions of the American scientist Lipsky (1969), it is street-level bureaucracy when professional problems are caused by the features of their clients. According to Lipsky (1969), the street-level bureaucracy is the one that:

- Constantly interacts with clients
- Has certain features of behavior
- Explains policy of the public power to the people
- Has relative independence in decision-making
- Impacts the fate of clients
- Takes place in the conditions of relative inaccessibility of resources both for people and for the organizations
- Is characterized by ambiguous, contradictory, and somewhat unattainable role expectations

In our opinion, the street-level bureaucracy easily acquires the commanding tone concerning the clients, and it is difficult for them to respect professional ethical standards. Enduring the difficult role of conflict, the street-level bureaucracy is not capable to realize the professional duty and to fill it with humanistic contents. Social workers simplify the task, reducing their functions to collecting documents. “The one who helps” turns into “the one who collects references.” In a similar situation, there is a relevant report before the manager, not before the client or society, that contradicts the main purposes of the social services. Answering the question “Whom are you reporting about your work first of all?” almost all the respondents and specialists in social work note that they report to the administration.

As to Lipsky’s (1969) opinion, bureaucratization of this category of workers is some kind of a protective mechanism. They are compelled to see a situation in the simplified or a little primitive form that together with a routine (the routine is an establishment of habitual or adjustable samples by means of which the problems are solved) allows the street-level bureaucracy to make fast decisions, thereby bureaucratizing the system.

According to the questionnaire surveys conducted among specialists of the social service in Ufa, some interesting results were obtained. The purpose of the research was to reveal the signs of bureaucratization in social service. The possibility of communication at a workplace was the main motivation to work for many respondents. Thirty-seven percent of respondents were tired of the administration, checks, and reports, i.e., of obvious manifestations of bureaucracy in the organizations, 15% of them hold the opinion that their work is necessary only to higher-ranking agencies administration. It seems good that 76% of respondents consider the client as a person in need of help and only 17% consider him/her as a package of references and documents. Fifty-four percent note that a certain share of their work is considered to be a futile work and that it is senseless and not necessary; 37% of respondents noted that similar work occurs to be insignificant. Forty-three percent of respondents considered it necessary to solve the problems of the clients, having done violations of the rules. The vast majority of experts see a root of all problems in the imperfect system of social support of the population and relevant legislation (Faizova 2014).

The data of the conducted survey confirm various degrees of expressiveness of the signs of bureaucratization of social service organizations, and the most important of them connected with the purposes of the organization directed at the protection of organizational interests, but not at the client, were widely mentioned. When the

organization sets the report before higher-ranking agencies administration as a main goal, it becomes first of all an element of the system which is keeping the existing imperfect social order.

In our opinion, the main reason of similar problems is nationally formed traditions in the social sphere administration, low level of political and legal culture of the population, weakness of civil society, and dependency of Russian civil society on the state. Moreover, it is exactly bureaucracy that becomes an obstacle for the promotion of leadership in this professional environment.

Recently there appeared prerequisites for the return process. Since January 1, 2015, nongovernmental organizations, including socially oriented nonprofit organizations (SONPO) and individual entrepreneurs, were allowed to the market of social services.

The competitive environment has to cause toughening requirements to the quality of management and services and qualification of personnel; it should stimulate manifestation of creative initiatives and development of leader potential into professional skill. The maximum conditions for the promotion of leaders will be possible if the organization is organic in its structure (Mintzberg 2004). Yarskaya-Smirnova and Romanov (2014) see in it a tendency to change the model of professionalism in the sphere of social work and a real chance to put professionalization into the positive scenario.

Does it mean that initiative and vigorous people came to this sphere?

The Republic of Bashkortostan positions itself as a region actively supporting or initiating various social programs and projects, and according to statistics, it is in the first place by the quantity of the newly opened programs in socially oriented nonprofit organizations (SONPO). In the register of suppliers of social services the non-state organizations make more than 70%, in absolute figures, the average salary of social workers of NPO in these regions exceeds the income of their colleagues in the state organizations for 21%. But this is a result of the increased workload – from 8 to 13 citizens on 1 worker. The logic is simple – if to work more, then more money will be made. However it is doubtful that similar approach will interest the youth. The staff remained the same, including the management. They started to organize more events directed at increasing the competence of leaders in the sphere of social management, but, as a rule, the residents of remote rural communities and regions cannot take part in these actions. The optimistic tone of the official reports sharply contrasts with the moods expressed at the informal professional forums of social workers and demonstrates professional problems: “... earlier the norm was 8 people, that is, 4 persons a day, for one = 120 minutes, now I have 10 people a day, 48 minutes for everyone, it..., but not service,” “... the director urges to work with the population (about paid services). We work, very much we try really, we offer our services to the population directly in the street. Nobody wants. What to do?...” (Forum of Social Workers 2016). Newly created SONPO experience difficulties with customer acquisition, website development, fundraising, and grant applications.

Yarskaya-Smirnova and Romanov (2014) write that the Russian caseworkers have no sufficient organization and unity in order to have influence on the formation

of the prestige of the profession, not each expert is capable to organize volunteer activity, very few people make proposals on social policy development, and these are just the kinds of activity that assume the presence of leadership skills. According to the research conducted by them in 2014, only 48% have heard about Labor Union of Employees of Public Institutions and Public Service (Yarskaya-Smirnova and Romanov 2014: 67).

5 Conclusion

A social worker has to be a leader if he/she works in NPO. It seems that a really great leader has to serve other people, and this fact defines his/her greatness. The analysis of leadership skills shows that this is a person whose main motivation of activity should be a desire to help and motivate other people. These key elements of the serving leadership theory could be rooted into the concept of modern social work. But the former official understanding of social organization leader did not state such purposes, i.e., to lead people the leaders used to act, being guided by others from the administration or, higher instances, did not show initiative and were not able or did not know how to do it. Thus, today almost full absence of new format leaders indirectly demonstrates that social workers in Russia are a part of bureaucracy.

Professionalization of social work in Russia continues, but not as a strategically important educational phenomena; it goes without special attention to leadership development in the organizations of social sphere (Mansurov and Yurchenko 2009). Control from the state generates dysfunctions and slows down this process. Modern social work in Russia needs the heroes and the stories of success. The presence of bright persons (role models) in social work, those who have made a huge contribution into its development, serving in glory of the nation and for the benefit of all people promotes the formation of a positive image of this profession allowing attracting more young people to this socially significant segment. That is why the system of social sphere managers should progress. Special attention should be paid to the organization of motivation programs and seminars and trainings on creativity and initiative. We do hope that a new generation of leaders will be able to change accents in corporate culture of the organizations of social protection.

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Migrants and Sustainable Development of the Host Community: Is Russia's Far East Ready for External Migration?



Elena Maklashova and Olga Vasileva

Abstract The objective of the work was to find out any changes in the processes of migration in the subjects of Russia's Far East and the priority level of the regional authorities' actions for adapting and integrating migrants within the context of sustainable development of the receiving community. The objective has been conditioned using the qualitative method of the research – the expert survey of representatives of the state authorities and the public in nine regions of Russia's Far East. In the paper, evaluation of dynamics of change of such important indicators of migration as ethnic identity, cultural assimilation, professional qualification of migrants, and the migrants' knowledge of the Russian language is shown against the background of evaluating the integration capacity of the receiving community. As a result, the research gives evidence of a high level of multinational (interethnic) solidarity and tolerance maintained in the receiving community of the regions of Russia's Far East, although the positive migrants' quality growth is low. It has been found out that citizens of the Far Eastern regions feature a weak level of readiness for integration yet it is higher than that of the migrants. The high growth of ethnic identity of the external migrants introduces tension into the condition of multinational relations and tolerance. In spite of the trends revealed, the questions of managing the migrants' adaptation are reported by representatives of both the regional authorities and the public as not high-priority ones for regional authorities of the subjects of Russia in the Far East. Special reinforcement for managing the questions of the migrants' adaptation and integration is necessary in regions having a high external migration level.

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1 Introduction

Russia's Far East (hereinafter – the FE) is one of the furthest away from the center and the “border” areas of Russia; it features the contrasting natural, geographic, climatic, demographic, social, economic, cultural, transportation, and logistic conditions that are closely interlaced and mutually influencing. The trans-boundary nature of the Far East brings about the relevant state administration and shapes the appropriate social practices. Geopolitically, nine subjects of the RF belong to Russia's Far East:

Amur region and the Jewish Autonomous Region and the Khabarovsk territory – these are the regions stretching along the northern border of China in the south of the Russian Far East.

The Republic of Sakha (Yakutia), Chukotka Autonomous Region, and Magadan region – these are the northern areas of the Far East referred to the Extreme North regions.

The Primorye territory and the Kamchatka territory and Sakhalin region – these regions belong to the integration areas of Asia-Pacific Region (hereinafter – APR).

In the following, the names of the regions are abbreviated as AR, the JAR, the KhT, the RS (Ya), ChAR, MR, the PT, the KT, and SR.

The today's Far East is first of all perceived as Russia's storeroom of resources and actually is one. Boasting immense mineral, biological, and recreational resources, the area of the FE which is some 36% of the entire Russia is inhabited by slightly over 4% of the country's total population only. The maximum number of population was registered in the early 1990s and amounted to around 8 million people; by 2010, the population had decreased to 6.2 million people. The Federal State Statistics Service annually publishes an analysis of statistical data about the number of population with factors having produced a significant influence on it. According to it, in most FE regions, the population number reduction is currently due both to migration outflow of the people and to natural loss. It is only the three subjects of the FE that were able to achieve a small growth of the population number, which was exclusively due to the natural increase: Chukotka Autonomous Region (in 2011), the Kamchatka territory (in 2012), and the Republic of Sakha (Yakutia) (in 2014 and 2015). Nevertheless, even in the nearest future, the natural growth fails to make it possible to compensate for the loss of population in the scope required for the economy; it only produces some effect of slowing down the intensity of the population decrease (Minakir et al. 2008). Most analysts are sure that the losses can only be compensated at the expense of higher immigration. “The north of Siberia and of the Far East will grow empty, their population density will be the same as in the northern areas of Canada that have similar natural conditions. As for further populating the southern regions of the Far East, this will be impossible without the participation of immigrants from neighboring countries and without further development of economic cooperation with the Asian-Pacific Region states” (Mkrtychyan

2004). Anyway, in their strategies of social and economic development, the FE regions point out that labor migration is both a way for solving the staffing problems and a threat to stability of the society. However, in regions having a strong reduction of the population number and with the Russian ethnos prevailing, the mass migration inflow is considered as an important measure for social and economic development. Meanwhile, in regions where the population number decrease is less pronounced and non-Russian population prevails, the measure is not recognized as a strategically important one. The foreign migration is designed to be of at least some support for the lack of labor resources in the FE, yet some researchers believe that the actual immigration flow hinders the social and economic development of the FE regions due to the foreign migrants' low level of qualification and adaptation to the way of life and overall culture of the receiving community (Vostretsova and Gnezdilov 2014).

According to the statistics on population migration in Russia, it is mostly the FE regions having the exit to the APR that are the most attractive for the external migrants. The national territorial formations – the Republic of Sakha (Yakutia), Chukotka Autonomous Region, and even the Jewish Autonomous Region – are of little attraction for the external migrants. According to the data of the Federal State Statistics Service for 2000–2014, there are regions featuring a high level of external migration, the Kamchatka territory (about 28% of all those having arrived); an above average one, the Primorye and the Khabarovsk territories and Amur region (some 15%); an average level, Magadan and Sakhalin regions (about 10% of all those having arrived); and a low external migration level, Yakutia, Chukotka Autonomous Region, and the Jewish Autonomous Region (some 5% of all the arrivals).

With regard to this, the authors believe the problem of the authorities' readiness for managing the adaptation of migrants and for maintaining the sustainable development of the receiving community is relevant.

2 Literature Review

The authors believe that the classification suggested by Iontsev (1999) is the most complete structure of the main scientific approaches in studying the population migration both in the Russian and foreign scientific literature. In its turn, the problem of mutual influence of such phenomena as ethnicity and migration was posed by Malakhov (2007).

The theoretically and methodologically applied scientific potential of foreign researchers is widely used. The comprehension of the complexity of migration made is essential to create concepts suggesting an integral analysis of migration determinants (Massey et al. 1998) and an analysis of consequences of the international migrations and of their influence on the economy of receiving and giving away communities (Borjas and Bronars 1999). A topical question of today's world is the problem of adaptation of the migrants. Gordon (1964) was among the first ones to tackle the problems of assimilation of migrants in the receiving society. In the work

of Berry (1997), the concept of types of migrants' adaptation to conditions of life in the receiving community was developed: an adaptation strategy, a response, and refusal ones. Many foreign works touch on the questions of the proportion of the migrants' ethnic and cultural identity within the multicultural society of today. Among them, Kymlicka (1989) should point out who put the question of recognition of cultural distinctions and respect for minorities' cultures, and so should Taylor (1994) who laid down the basis of a liberal variant of multiculturalism. The problems of intercultural communication, and, in particular, ones of identification under globalization, are raised in certain works, e.g., by Friedman (1994). There is also a linguistic approach to determining the bases of intercultural communication which makes use of definitions stressing the primary role of language in intercultural communication processes (Rafieyan et al. 2014).

In the Russian scientific field, there have been the following developments of certain migrant community problems, in particular adaptation and disadaptation of migrants to the receiving social environment, the problems of labor migration and quality of life, and the formation and functioning of ethnic diasporas. A special place is occupied by works on identifying the relations between migrants and the receiving community. So, certain authors while analyzing the multinational tension proceed from the influence of cultural and value-related differentiations. For instance, Karanov (2013) writes that identity is inseparably associated with the ideas about distinctive features of this or that community. There are also other interpretations of tension factors; in particular, it is emphasized by Zavalishin (2014) that ethnic terminology frequently conceals social and economic insecurity and social and economic inequality.

There are quite numerous scientific developments in the area of local processes understanding or studying individual groups of migrants. So, the specific regional particularities of migrants and problems of their adaptation and interaction with the receiving community are elaborated and analyzed in the works of Karanov (2013). With regard to this, the scientists come to the conclusion that the practices of mutual adaptation of migrants and the receiving community turn ethnicity into an important phenomenon of the contemporary social and cultural life, with institutionalization of migrant communities occurring as ethnization. Anyway, the Far East does not have specialized scientific and research institutes studying the social and migration processes functioning everywhere. Within studying the situation of the Far East, scientists are active in dealing with particularities of migration processes and adaptation of migrants. In their published works, the authors proceed from both the existence of ethnic and cultural distinctions of migrants and the social and economic as well as psychological factors influencing the level of multinational tension in the society. Quite a good scientific start has been given to the questions of multinational relations; here the works of scientists analyzing the particularities of local processes within the Far East are presented. Meanwhile, the questions of organizing the management of migrants' adaptation, the authorities' evaluation of the contemporary migration processes, and the integration capacity of the receiving community remain the blank spots of the research.

3 Research Methods

The paper cites the results of sociological survey “Particularities of implementation of the state national policy in subjects of the RF (2015–2016).” The program was developed and approved in the sector of ethnic sociology of the Institute for Humanities Research and Indigenous Studies of the North of the Siberian branch of RAS. The method of standardized expert survey was used. The survey areas encompassed nine subjects of the RF in the Far East. The objective was to identify managerial problems in the national policy implementation. The control groups are, as experts, the representatives of state authorities of nine regions of the Far East acted – ones that are directly related to political and managerial decisions in the national policy implementation – and the representatives of science and the public of the nine regions. Selection criteria were the following: (a) competence and direct association with the problems of interethnic relations, ethnic and cultural policy, and civil unity consolidation and (b) a position occupied in state authorities (for public officers). In the expert survey, one representative (top- or mid-ranking) of the legislative and executive branch of authority each and one representative of the public or science for each RF subject in the Far East were involved. The form of the expert survey consisted of four analytical units: the evaluation of social and political situation in the region, the state management of the questions of ethnic and cultural policy in the region, the trends of development of social processes and improvement of management of the questions of ethnic and cultural policy in the region, and the theoretical and methodological approaches to managing the ethnic and cultural policy questions. The questions of the “Evaluation of social and political situation in the region” unit had a closed form and a point rating scale, with score 1 standing for the pronounced negative dynamics and score 5 for the clear positive one and 0 meaning the situation has not changed. In the “State management of the questions of ethnic and cultural policy in the region” unit, the experts were asked to evaluate the priority extent for certain mechanisms in the work of state authorities of the FE regions. Here the rating scale was graded 1–5 points, with score 1 meaning the answer of “having a low level of priority” and score 5 “a high-priority level.” The options “no work or suspended work” and “I have difficulty answering” were also taken into account.

4 Results and Discussion

Now, particularities of ethnic identity dynamics among the population in general in all regions of the Far East are going to be considered through the lens of expert opinion of the representatives of the authorities and those of the public.

The comparative cross section of the dynamics of ethnic self-identification in the regions shows that the process of reinforcement of ethnic self-awareness is of different intensity in different groups of the population. However, it is progressive both in the indigenous and the Russian population and in the external migrants. It is

in Yakutia that there is the greatest divergence of opinions according to the parameter of the Russian population's ethnic identity: here the expert representative of the public evaluated the dynamics of this parameter as low. A similar situation is observed in Chukotka Autonomous Region. In the Jewish Autonomous Region, the most diverging opinions are on the ethnic identity of external migrants' parameter. Here, according to the expert representative of the public, the level of identity is higher in the external migrants than it is believed to be by the authorities.

In all regions of the Far East, the population experience a marked increase in realizing their ethnic identity, this being characteristic for both the Russian and the indigenous population, as well as for the external migrants (see Table 1). However, it is noteworthy that in the national regions, the indigenous population's and the external migrants' ethnic identity tends to feature a more progressive growth. Among regions where the Russian population share prevails, the experts believe there are ones where the dynamics of ethnic identity rise in the Russian's "outruns" than that in the indigenous population – this is the case of the Khabarovsk territory and the Kamchatka territory as applied to external migrants.

The external migration in the Far East is intended to resolve the issue of undermanning in the labor market. As it is pointed out by the experts, in the same 5 years, no essential growth has occurred in the external migrants' professional qualification. Meanwhile, a negative fact is also to be seen: the local population's professional qualification shows no great growth either. Anyway, in general, the change of growth dynamics of the external migrants' professional qualification does not exceed that of the local population (Table 2). It has to be emphasized that according to the experts – representatives of the public – a shift in the level of professional knowledge and skills is observed with the migrants that is more positive than registered by the experts, representatives of the authorities. Nevertheless, in the opinion of the former, the migrants' professional qualification level does not exceed the same parameter of the local population. Representatives of the public say that in the Jewish Autonomous Region and the Primorye territory, the professional qualification growth level shown by the local population lags behind the same parameter in migrants greatly, which confirms the existing trend of the region's labor potential quality and competitiveness in the labor market decreasing.

There is progress in the external migrants' knowledge of Russian observed (the change was particularly stressed by the experts – representatives of the public), but it is not so rapid as would probably be desirable for a close inclusion of the migrants into the receiving environment.

Cultural assimilation of migrants in the FE regions features a similarly slow pace. It should be mentioned that a knowledge of Russian is not enough for successful socialization of the migrants. The most unfavorable situation as for the quality and assimilation of migrants is observed in Sakhalin region, the Khabarovsk territory, and Yakutia – regions that are characterized by the lively economic development and growth of the external migration (with Yakutia excluded).

As for the most favorable situation, this is seen in Magadan region, one of the Far East's leading regions in economic development. Good performances of the process of migrants being included into the community are shown by Amur region too. The

Table 1 The average score of change in ethnic identity for the recent 5 years in the regions

Regions/ethnic self-awareness score	AR	JAR	The PT	SR	The KhT	The KT	MR	The RS (Ya)	ChAR
Opinion of representatives of the authorities									
Of indigenous population	4.0		4.0	3.5	3.5	3.0	4.0	4.0	3.0
Of the Russian population	4.0		4.0	3.0	4.0	3.5	3.5	3.5	3.0
Of external migrants	3.0		4.0	4.5	4.0	4.0	4.0	4.0	4.5
Opinion of representatives of the public									
Of indigenous population	3.0	I have difficulty answering	3.0	4.0	4.0	4.0	3.0	4.0	4.0
Of the Russian population	3.0		4.0	4.0	4.0	5.0	4.0	2.0	2.0
Of external migrants	3.0		3.0	4.0	4.0	4.0	3.0	3.0	4.0

Source: E.G. Maklashova. Linear distribution of the sociological survey "Particularities of implementation of the state national policy in subjects of the RF (2015–2016)"

Table 2 Average score of change in the quality of migrants in the regions in the recent 5 years

Regions/parameters	AR	JAR	The PT	SR	The KhT	The KT	MR	The RS (Ya)	ChAR
Opinion of representatives of the authorities									
Professional qualification of external migrants	2.5	2.5	3.5	2.0	2.5	4.0	4.0	2.0	3.5
Professional qualification of local population	3.0	3.0	3.5	2.0	3.0	2.5	3.0	3.0	2.0
Cultural assimilation of the migrants	3.0	3.0	2.5	3.0	3.5	1.5	3.0	3.0	3.0
The migrants' knowledge of Russian	3.0	2.5	2.5	3.0	3.5	3.0	3.0	2.5	3.5
Opinion of representatives of the public									
Professional qualification of external migrants	3.0	3.0	3.0	3.0	2.0	3.0	3.0	0.0	3.0
Professional qualification of local population	3.0	2.0	2.0	3.0	4.0	4.0	3.0	0.0	3.0
Cultural assimilation of the migrants	3.0	3.0	3.0	2.0	2.0	3.0	3.0	0.0	2.0
The migrants' knowledge of Russian	3.0	3.0	4.0	3.0	3.0	3.0	4.0	3.0	3.0

Source: E.G. Maklashova. Linear distribution of the sociological survey "Particularities of implementation of the state national policy in subjects of the RF (2015–2016)"

Kamchatka territory has a difficult situation concerning the evaluation of quality and assimilation of migrants, as the inflow of external migrants to the region is high.

What is the effect of these transformations on the interethnic communication, according to the experts? In the Far East, the process of reinforcement of interethnic concord in a multicultural (polyethnic) society features a dynamic positive character (Table 3). The experts point out both a positive dynamics of multinational relations and the dynamics of growth of multinational tolerance in the Far East, in spite of the "pressure" due to external migration increasing. However, some lagging behind can be noticed in the processes of forming the receiving community's integration capacity.

The difference in the respondents' attitude to the level of the local population's integration capacity is noticeable. Most representatives of the authorities tend to register a higher change dynamics of the population's integration capacity as compared to representatives of the public. However, in regions having high external migration, the regional authorities believe the local population to have a lower dynamics of integration capacity than deemed by the representatives of the public.

Thus, the experts have pointed out the dynamic processes in the change of ethnic self-awareness and professional competence of migrants against the background of reinforced positive trends in the level of multinational (interethnic) relations.

Meanwhile, what is the authorities' approach to the question of adaptation and integration of migrants today, and how important this work is for the regions of the Far East currently? The activity on integration of migrants is at present a high-

Table 3 Average score of change in multinational relations in the regions in the recent 5 years

Regions/parameters	AR	JAR	The PT	SR	The KhT	The KT	MR	The RS (Ya)	ChAR
Opinion of representatives of the authorities									
Multinational relations	4.0	4.0	3.5	4.0	4.0	3.5	4.5	3.5	4.0
Multinational tolerance	4.0	4.0	4.0	4.0	4.0	3.5	4.5	3.5	4.0
Integration capacity of the receiving community	3.0	3.5	3.0	3.5	3.5	3.0	3.0	3.0	3.5
Opinion of representatives of the public									
Multinational relations	3.0	3.0	3.0	3.0	5.0	3.0	4.0	3.0	4.0
Multinational tolerance	3.0	3.0	2.0	4.0	4.0	4.0	3.0	4.0	4.0
Integration capacity of the receiving community	3.0	3.0	3.0	3.0	I have difficulty answering	4.0	4.0	0.0	3.0

Source: E.G. Maklashova. Linear distribution of the sociological survey "Particularities of implementation of the state national policy in subjects of the RF (2015–2016)"

Table 4 The priority level of actions for migrants integration in the regions (average score)

Regions/parameters	AR	JAR	The PT	SR	The KhT	The KT	MR	The RS (Ya)	ChAR
Opinion of representatives of the authorities									
Adaptation of external migrants	3.0	3.0	3.5	2.5	4.0	3.0	3.0	4.0	4.0
Opinion of representatives of the public									
Adaptation of external migrants	3.0	2.0	3.0	N/A	4.0	3.0	3.0	1.0	3.0

Source: E.G. Maklashova. Linear distribution of the sociological survey “Particularities of implementation of the state national policy in subjects of the RF (2015–2016)”

priority one in Chukotka Autonomous Region and in the Khabarovsk territory. This work is also registered as relevant in Magadan region, the Kamchatka territory, and Amur region.

In the Jewish Autonomous Region and especially in Sakhalin region, in Primorye territory, and in Yakutia, the evaluation given by the representatives of the authorities and by those of the public does not match; however, on balance, one can say that in these regions, there is a secondary important approach to managing the migrants’ integration within these subjects (Table 4).

Nevertheless, regardless of the priority level in the authorities’ work on adaptation of migrants, the results of the survey give evidence of cultural assimilation of migrants being sluggish, while the level of their ethnic self-awareness growing quite fast. The deficiency of the mechanism of working on adaptation and integration of migrants is evident.

5 Conclusion

So, the expert survey has demonstrated divergence of opinions among the representatives of the authorities and those of the public in their understanding the processes of inclusion of migrants into the receiving community. There are discrepancies in such major items as cultural assimilation of migrants and dynamics of change of the multinational relations. It is exactly the case of a region that has a high level of external migration, such as the one in Kamchatka territory, that yields the greatest differences in the authorities’ and the public’s perception of the level of cultural assimilation of migrants. A curious enough conclusion has been obtained: in most regions, representatives of authorities are sure that migrants have a poor knowledge of Russian while those of the public believe the migrants’ dynamics in it is quite not bad. Anyway, even with a good progress in the migrants’ knowledge of Russian, their assimilation dynamics lags behind. Meanwhile, the management of adaptation and integration of migrants in Russia relies on the knowledge of the Russian language first and foremost. The data of the survey enable the authors to emphasize

that the factor of knowledge of the receiving community language that acts as an element of integration is cumulative in its nature.

The situation with evaluating the qualification of the local population and the external migrants is quite ambiguous. The authorities register a poor growth of the external migrants' qualification level, while the representatives of the public point out that migrants show quite a good progress in their professional and labor quality, which allows concluding that the labor market competition tends to increase.

With regard to this, what is seen is just more or less positive evaluation of multinational relations and tolerance level – and a low yet still available reserve of the local population's integration capacity confirming that the feeling of internationalism is still preserved in the Far Eastern community. So, it is only owing to these two aspects that the authorities' poor work on migrants' adaptation has not yet resulted in direct conflict situations between the receiving community and the migrants, which is sometimes the case in the western part of Russia.

There have to be developed some more maneuverable measures for influencing the migrants' integration process in order to keep the regional community stable, particularly under higher competition on the part of migrants in the labor market and the growth of their ethnic identity. Currently, the work on reducing the ethnic factor influence of the external migrants seems relevant, and it has to be carried out both indirectly (by means of information action) and by developing the new measures of working with noncommercial national and cultural organizations.

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Informal Leadership Community Education in the United Kingdom: A Lesson for Russia



Elena Soltovets, Anna Bondarenko, and Oksana Chigisheva

Abstract The paper deals with the concept of leadership developed through informal learning as an object of scientific scrutiny in Great Britain and Russian Federation. The relevance of the study is to create awareness of the scope and character of existing research on informal leadership education within the framework of community development specific to both countries. The article aims at providing quantitative analysis of the British and Russian researchers' publications on the issue and covers the papers available in ProQuest and the Russian State Library databases. The method of content analysis is used to obtain the data that give ground for further comparative interpretation. The dynamics of publication activity is being analysed chronologically, and the thematic fields are being specified for the research carried out in the countries under consideration. The findings of the study highlight the gaps in understanding of the phenomena and help identify opportunities for best practices promulgating.

1 Introduction

The latest trends in global human capital discourse have highlighted the issues of leadership development. The lifelong learning framework, in its turn, brought about the necessity to explore the concept of leadership in a variety of contexts (internationalization, transformation, transition, individual development) which differ from traditional formal education background (Chigisheva 2010, 2011, 2015a, b, c; Melnichuk et al. 2017). Informal methods of learning and teaching reshape the modern education landscape space for innovation in all fields of community

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development. The shifts in the labour mobility schemes together with the changes in the demography, social stratification and new economic challenges have given a new focus to the problems of social cohesion.

In this respect, experience of the countries that pioneered the area may become invaluable. Being among the universally recognized leaders in the sphere of informal education as well as community development, Great Britain provide an indispensable contribution to the bulk of knowledge accumulated on the matter. When looking for the best practices, the experts in the sphere of education can rely on the accounts of British specialists. The publications of scholars and academics of the United Kingdom can help identify the focus of trouble and aspirations and to some extent predict the future tension points.

Russia in many regards follows the ways of European countries inasmuch as social expectations and population-forming patterns are concerned. The questions of introducing certain alterations into the education paradigm are also among the stark issues of the modern period. The issues of community building for active citizenship have not been in the focus of academic research in terms of neither leadership nor informal education. Thus, it might be useful to review the array of publications in the United Kingdom and Russia to find the gaping holes in Russian research and to sketch on this basis some perspectives for further investigations.

2 Literature Review

Speaking of informal leadership community education, one cannot fail to mention such prominent contributors into the theory and practice of informal education as Tony Jeffs and Mark K. Smith (1999). It seems impossible to overestimate the progress made in the study of community work and informal leadership issues in the United Kingdom driven by their thorough research in the field.

Doyle and Smith (2001a, b) join them in discussing the nature and social implications of leadership. Having provided a careful review of leadership theories, they put forward an idea of shared leadership as more inclusive and informal understanding the essence of the phenomenon. Following Nemerowicz and Rosi (1997), they oppose it to the classical leadership model, emphasizing the power of communication through conversation and democracy values. It should be mentioned that conversation is presented as the underpinning principle of informal education (Principles and practice of informal education: Learning through life 2001: 13; Gola 2009).

The full review of literature on community leadership is challenged by the fact that the context of informal learning has generated terminology vagueness and diversification of approaches. Considering leadership as part of youth community work, for example, some authors refer to the mentoring institute (Bennets 2003; Philip 2003; Sandfort et al. 2005; Philip et al. 2009). The workplace-related situations of informal leadership are explored by a number of British researchers (Marsick and Watkins 1990; Billett 2001). The aspects of community development

through widening participation extend the discourse on informal leadership education to incorporate the issues of social (Cullen et al. 2000; Colley 2003; Cornforth 2005; Mayo and Rooke 2006) and digital inclusion (Social Inclusion Unit. Inclusion through innovation 2005; Trinder et al. 2008; Hague and Logan 2009). Informal leadership in digital communities is not considered by British scholars separately but is apparently linked with the problem of bridging the gap between the ageing population and the youth. The former are expected to provide expertise, while the latter contribute with their experience of living in the digital environment. Such forms of cross mentoring with the help of technology are also seen as a way of tackling the problem of social exclusion and ethnic encapsulation.

Community development context is also pervasive for the British informal education agenda. Community building is studied and promoted on different levels, from local neighbourhood (McGivney 1999; Gilchrist and Jeffs 2000) to national identity (Department for Communities and Local Government 2008). Informal leadership is treated rather as an integral part of a community worker's responsibilities than as an occupation in itself. The debate over the essence and character of the informal component in such jobs is still lively.

3 Materials and Methods

3.1 Research Design

The assumption underlying the study's objective is as follows: the interest towards the subject of informal leadership education as well as the country-specific ways of community development can be identified by assessing the number and topical diversity of the research papers published in the largest bibliographic databases. Analysed in terms of chronological and geographical distribution, the publications may show the dynamics of rising academic interest in the sphere and be informative of some potential implications for further researchers. Thus, the methods used in the research are mostly theoretic, involving content analysis, semantic and linguistic analysis, comparative analysis and statistical interpretation.

The study draws upon the data obtained from the ProQuest database, which provides information on current scholarly journals, reports, working papers and thesis abstracts, being one of the largest multidisciplinary databases (ProQuest Database 2017). It covers the period from 1861 till present and contains over 3.5 million dissertations from 88 countries including the leading British colleges and universities, which gives quite a detailed picture of the research agenda in the United Kingdom.

The Russian publication activity on the issue concerned was studied through the Russian State Library (RSL 2017) database. The source was chosen as representative for Russian-language publications due to the fact the digital library of dissertations and the electronic book catalogue are unparalleled collections of all printed quality research papers published in Russia.

3.2 *Research Procedure and Methods*

In accordance with the universally acknowledged system of research methodology (Cohen et al. 2008), the study used the method of content analysis of titles, abstracts, keywords and full texts of the publications on informal leadership, informal education and community development issues as presented in the databases of ProQuest and RSL. The analysis category is reflective of lexical items associated with the specific areas of focus and formulated in English and in Russian languages with due regard to the synthetic (inflected) character of the latter. So, the categories of analysis were the concepts of “informal learning/education”, “informal leadership” and “community education” in both languages. The unit of account at any stage was the number of references of the lexical items related to the category of analysis. The results of the search query have undergone sampling for the total number of publications on the subject under consideration and processed with Microsoft Excel visualization tool to be the object of theoretical interpretation (Davis 1974).

4 Results and Discussion

The objective of the first stage of the research was to carry out a search for the key terms in the databases to define the chronological frames and outline the timeline of the concept development. It should be noted that the phenomenon of community education enjoys much greater popularity in Great Britain than in most countries and dates back to the middle of the nineteenth century. Informal aspect of community education was introduced as early as the beginning of the 1970s, when the number of studies related to informal learning in general and informal community education in particular starts to increase steadily to soar by the first decade of the twenty-first century (see Fig. 1).

Of the total 1188 papers where these concepts are listed among the keywords, 865 and 117 are published by American and Canadian scholars, respectively. Great Britain ranks second in this list with 177 papers issued within the period from 1974 to 2017. Notably, 155 of them were contributed by the English researchers, while Scotland, Wales and Northern Ireland are represented by 10, 6 and 5 works found in the database. The geographical distribution confirms socially rooted interest of England towards issues of community building with latest focus on informal methods of social work.

Interestingly, community leadership as a topic of interest prevails throughout the period of 1980–1990s, but gradually yields in significance and hence in frequency of mentioning by the end of the 2000s. It can be related to the fact that the middle of the decade saw witnessed a boom of interest towards informal learning agenda resulting in the launch of the government’s White paper on Informal Adult learning proudly entitled “The Learning Revolution” (Department for Innovation, Universities and Skills 2009). Though community leadership was still treated as one of the most

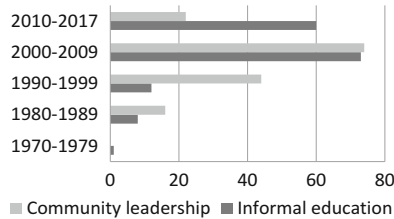


Fig. 1 The number of British publications containing “community leadership” and “informal education” mentioned together in the full texts (available in ProQuest database) (Source: the authors)

important aspects of community development, the paper emphasized the importance of digital inclusion and encouraged informal methods of social participation. In fact, it was drawing public attention towards informal community leadership development in terms of voluntary organizations-local authorities nexus. This focus on informality is clearly seen through the distribution of the papers where the terms of “informal learning” and “informal education” are indicated as the keywords (see Fig. 2).

It might be also interesting to look closely at the range of subject areas of the works published in certain time periods. In the years of 1980–1990s, the studies were rather field-specific (mostly in the spheres of history and social studies). Characteristic of the following decade is a distinct shift towards the field of education. Some trends of further disciplinary diversity alterations also manifest themselves at this stage. The number of papers dealing directly with the educational theory and practice is growing (see Fig. 3).

After the year 2000, informal learning has been growing in popularity, being mentioned in the abstracts of papers on most diverse subjects: museum and religious studies, cultural anthropology, labour relations, occupational psychology, etc. Regardless of that fact, a clear interest to the informal component of work-based learning and community-related activities is seen from the range of subjects studied. Simultaneously the leadership component is growing, though insignificantly, throughout the whole scope of subjects. Apart from community development, it has been studied as a meaningful element of management theory, informal social work and academic environment.

As far as Russian publications on the issue are concerned, they are far from being numerous as presented in the State Library Database. Informal learning or teaching is not mentioned in the full texts until 1995. Since 2005 the number of yearly publications containing the terms has risen insignificantly to reach its peak of 39 papers in 2016 (see Fig. 4).

What is noteworthy, the vast majority of Russian publications under the tag “informal learning” relate directly to the field of education. The picture does not appear to vary significantly if viewed diachronically. The academic context is predominant in the whole bulk of publications: virtually most of them are marked

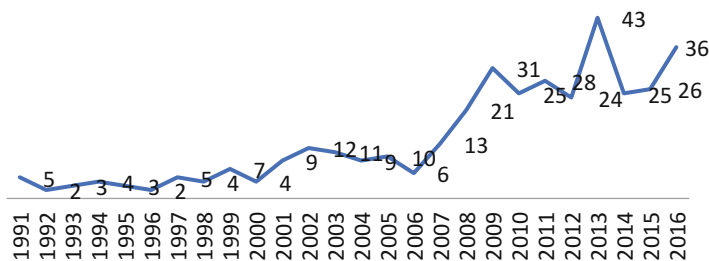


Fig. 2 Yearly distribution of Britain-issued papers containing “informal learning” and “informal education” as the keywords (available in ProQuest database) (Source: the authors)

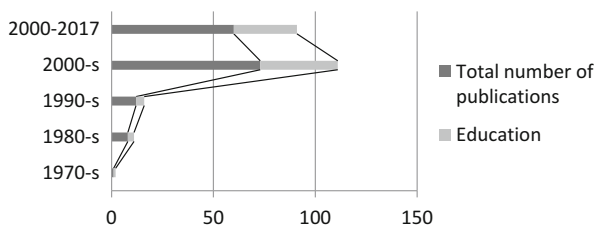
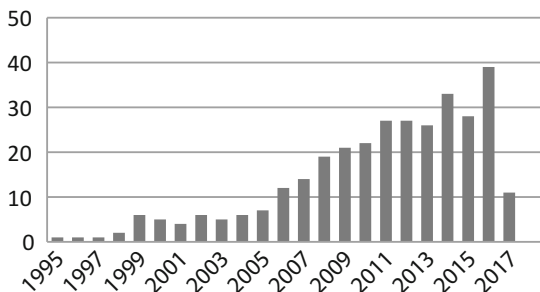


Fig. 3 The share of publications with “education” tag in the total number of papers directly related to informal learning within the period from the 1970s to present (available in ProQuest database) (Source: the authors)

Fig. 4 The number of Russian publications referring to “informal education” or “informal learning” in the full texts (available in Russian State Library database) (Source: the authors)



as “pedagogy” with approx. 20% included in the sections of “economy” and “social studies”.

However, there are far fewer works when the keyword factor is taken into account. Fourteen Russian-language works are found directly related to informal methods in education with none of them touching upon the issue of leadership development or community building. This fact may be explained by the translation or wording issues. “Leadership” is a complex notion in Russian with no direct equivalency as far as context is concerned. For this reason, a number of Russian terms were applied successively while carrying out the search in the Russian State Library database. Thus, it is hardly surprising that the query showed a wide variety

of publications addressing quite different aspects of leadership phenomenon. Those featuring the aspect of academic guidance and administrative management were most popular. Logically, they bear little relationship with informal leadership and did not provide a sufficient ground for exploring the topic of community development. Another aspect was the teachers' cultivating role. Such works concentrated on classroom leadership and learning communities. Certain papers had narrow focus, describing specific problems (e.g. development of local library community).

The difference between British and Russian social and cultural awareness providing a background for understanding the term "community" added to the challenge of the task. Nevertheless, the search results showed that community development is not regarded as part of the social bonding process. The terms denoting "community" in Russian are interpreted wider and often referred to within the context of citizenship, national and local identity or social groups. Informal leadership was never found to be applied to the field of community development in the publications available in the Russian State Library database.

5 Conclusion

Despite the fact that the query search has not found any papers devoted exclusively to the phenomenon of informal leadership community education, it has demonstrated that the subject has been implicitly studied in Britain for a period of at least 30 years. Various aspects, being tackled individually and collectively, provide a substantial bulk of knowledge and expertise. The findings have revealed a steady increase in the number of publications on informal education that suggests a further long-term focus on its efficiency. The body of British publication on the matter clearly shows the trend towards thematic diversification of the studies conducted as well as intensification of academic component. Among the spheres enjoying closer scrutiny are social aspects of community leadership and work-related incidental learning.

Russian experience of informal education appears to be concentrated on academic issues and shows no relation to community development. Informal leadership has not been an object of scholarly debate in Russia, as compared to the scope of British publications which reveals a multitude of approaches to the phenomenon of leadership.

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Political Leadership as a Form of Expression of Public Expectations



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Abstract The purpose of the article is to identify the specifics of political leadership from the standpoint of morality and the dominant model of the political system in the developed countries of the world. Leadership is a necessary element of the management system of any organized human activity. The leader is the head of the team aimed at fulfilling the common goal. If the goal is directly related to the interests of society as a whole, then such a leader is a political leader. Political leadership becomes possible only if a person expresses the interests of certain groups (segments) of society. But since there is no unity of interests in the society, the leader has a risk of political leadership. Leaders often succeed each other in the course of an acute political struggle due to the organization of the country's political system. Therefore, no continuity of their political goals is usually possible. The only exception is the political organization of the society in which the leader has the opportunity to remain in office for a period of 10–20 years. The realization of really meaningful social goals is possible only at such terms measured by the life expectancy of generations of people. Short-term performance of the political leader is a political reason for the fact that society develops spontaneously and randomly. Only the long-term functioning of the leader or the continuity of the political goals of successive leaders is the political basis for such social development when society itself manages its development.

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1 Introduction

Leadership is a necessary element of management system of any human activity. The leader is a supreme type of the team manager; therefore, not every chief is a leader. The leader is always aimed at fulfilling the public purpose. If this goal is directly related to the interests of society as a whole, such a leader is a political leader.

The state cannot be represented as a model of billiard balls proposed by Arnold Wolfers (1951). The presence of political leaders in society is the best denial of this idea. Public essence of leadership starts with an assessment of the leader's subjective qualities by the society. Political leader is a special person but as a publicly recognized personality (Moskalenko and Yevsieieva 2015). To become a leader, on the one hand, such a person must have a similar personal objective, i.e., the desire to become a leader, and, on the other hand, meet the requirements of the society as a person suitable for the highest level of state's echelons of power. Such claims are the unity of demands of professional, moral, and physical character, including even the sex of the person or her or his appearance. This level of management requires top skills in politics, governing, logistics, and management (Čábelková et al. 2015; Jankelová et al. 2017).

Leader's personal qualities are always pointing to the society. Therefore, they are not only the result of his own nature and efforts but also the result of public opinion about him. The talents are given to the leader by nature but, in relation to society, they become socially necessary talents.

Political leadership, of course, includes such an important moment as the ability to find compromises between political forces in the country as it is well described in Parlier's book on Adolphe Suarez (Parlier 2000), but, in our view, its main feature is, nevertheless, in its very purposes. Public essence of political leadership is manifested in the state objectives implemented by her (or him). All these, however, is met with a remarkable load of stress which might negatively impact on the leader's performance (Bordea et al. 2017). If a person climbs to power and at the same time meets the society's requirements about his subjective qualities, her or his political leadership becomes possible if she or he becomes a speaker of interests of those or other significant groups (strata) of the society.

2 Literature Review

Political leadership is often considered on the example of a specific country or region (Kazakov 2013). Other authors examine the activities of specific political leaders themselves (Irkhin 2011). Political leadership as an independent rubric is present in many textbooks on political science regardless of their specific name, for example, *Political Science* (Zelenkov 2017), *Political Anthropology* (Kradin 2011), and *History of World Politics* (Kabachenko 2009).

There are publications entirely devoted to political leadership in one or other of its aspects, for example, *Political Leadership: Typology and Technology* (Shablinsky 2004). Moreover, many works on knowledge information and sharing, as well as other related topics, are also preoccupied with the issue of leaders and leadership (Koudelková and Svobodová 2014; Jiroudková et al. 2015; Simionescu et al. 2016).

It is interesting to note that the problem of political leadership is, as a rule, studied from two directions. The first is an analysis conducted on the example of leaders who are no longer functioning leaders at a given country. On the one hand, this is understandable, because the corresponding leader has already completed his political career and therefore he is a complete object for scientific analysis. At the same time, the analysis of the leader, who is the current leader, cannot be completed, because the future of such a leader and his deeds are still unknown.

The second direction is the analysis of political leadership in a certain country, but conducted from another country. This also applies to past and current leaders, but still allows for more attention to analysis of existing leaders, without fear of any consequences for the researcher himself.

Therefore, it is not difficult to see that, for example, foreign researchers have the opportunity to criticize Russian political leaders more than Russian researchers themselves.

3 Methods of Research

As for the methodology of policy research, the following should be noted. Although French researcher Dogan (1994) showed back in 1994 that Western science is characterized by extra quantifications, i.e., reduction of quality to quantity, however, in terms of political leadership, qualitative research methods still prevail over quantitative methods.

The study of political leadership cannot be based on a variety of sociological research methods, since the very object of analysis in this case is singularity, and not a mass phenomenon, for study of which it is usually sufficient to have a representative sample.

The study of political leadership can be based primarily on identifying and establishing the nature of the relationship between the leader and the rest of the society, between the leader and social events and practices, and between other members of society about the leader.

4 Main Results

4.1 *Leadership and Public Opinion*

The force of public opinion can repeatedly reinforce these subjective qualities of a leader as a human being turning him almost into a deity. For example, all the Kings were the representatives of God on Earth for the populace. But this same power of public opinion can become a force that will overthrow the politician. It should be noted that nowadays politicians often do not have enough amplifying force to alter public opinion, while the modern political history has multiple reverse examples when the career of a current or potential politician might depend on it.

Rather negative than positive influence of the power of public opinion on the political leader can be explained to a large extent by the spread of “secret collusions” described by Badie (2012), i.e., agreements concealed from the public and achieved without its approval which are usually led by leaders to achieve their goals. A key reason for this phenomenon is rooted in that a market society is segmented into economically and socially diverse strata and groups which make it impossible to identify a common interest as the force that enhances the leader that represents this interest. It turns out that the private interest of each member of society is his only public interest.

4.2 *The Risk of Political Leadership*

In our opinion, not only the category of “moral capital” (Kane 2001) but also the category of “risk of political leadership” are relevant to political leadership. Negative impact of public opinion on political leader creates the basis of a phenomenon that could be called the “risk of political leadership.” By this we mean the ability to change society’s attitude to political leader. This may include changing the public opinion of him, or “moral hazard,” and changing the assessment of his historical contribution, or “historic risk.”

At the present stage, the risk of leadership is increasing because the society is much more likely to pay attention to leadership qualities than, for example, 30–40 years ago according to Finnish political scientist Lauri Karvonen (2010).

Society lives according to established laws and adheres to many moral norms. Initially, more-or-less educated people are always proponents of progress, and ordinary people simply want to improve their lives but only without violating the laws and moral norms in which they are brought up and with whom they live. A person desires changes that are useful for him but, on average, achieved only by applying well-known biblical commandments and other accepted norms like “do not kill,” “do not steal,” “do not cheat,” etc. But life only according to the laws and morals is not possible in the society of contradictions and antagonisms. Economic and political competition on which the modern world is based is a collision of equal

wills of the society members. The judicial system is used for solutions of private conflict situations in many cases within the state, while no court is possible among countries. Hence there is an inevitability of past and present wars between countries, unpopular reforms within the state, and other public collisions which are completely intractable on the principles of morality or applicable law but are quite solvable through the use of force. The right to use the force by the stronger party becomes moral and legal, and modern political struggle between countries, for example, becomes a way to military or economic compulsion to “winner’s democracy” which is identified with the “true” morality.

This contradiction between the democratic objectives of society and the force (undemocratic) methods to achieve them by the state is allowed due to the actions of political leader who takes responsibility for the choice of those methods including military and violent ways. Thus, political leader removes the moral and legal liability for the possible human victims, material and cultural losses, and personal misery from all other members of society he leads. He becomes the only reason for everything negative which this society has to decide to live based on the morality and law. This is the adoption of a risk of political leadership by the person. For example, as a result of the defeat of Nazi Germany, the moral and political responsibility for the entire world’s troubles was assigned only at its highest political leaders and not at the masses of the population on which they relied in their “brutal” actions.

Endless revision of assessments of leader’s actions by the current and especially subsequent generations of people is an evidence of this risk for any political leader. Current public assessments of past leaders are changing not due to significant changes in morality but because of changing material conditions in which each subsequent generation lives. It seems that the attained level of wealth is the result of the efforts of the society which lives in compliance with moral and legal norms. In fact, the present is also the result of not very moral and legal actions of past political leaders. Compliance with morality and law at present is based on their noncompliance in the past. The current society always supports (justifies) the actions of its selected leaders, and only next generations start blaming those leaders in violations of morality and laws.

It should be noted that the role of moral hazard in general historical assessment of a political leader is relatively reduced with increasing time interval. The moral evaluation of the leader’s actions at the highest degree is relevant for the current and nearest generations. But the farther in time the leader’s action from the present, the more the public attitude to him is determined by his historical contribution and not morality of his actions. In this case, the time appears as a factor that negates moral hazard. This is very similar to the difference in the strength of the feelings about current negative event that relates to the individual or, for example, to people living in different countries or in other rules. The farther the trouble from a person, the less it affects him.

For the current society, increasing of the historical significance of political leader ignoring his moral actions is either the result of historic success of a country or is connected with the growth of national consciousness. It should be noted that the

importance of the leader is also manifested in the fact that ordinary people begin to orient on him to this or that extent (Smith 1978) but the moral reason that causes this phenomenon is always hidden.

4.3 Leader and Nature of Social Goals

The current political leader is a spokesman of the dominant public interest in the given country in the given historic period. This person is a concentration (personification) of the interests of society as a whole. This is well illustrated by the example of the political nature of the institution of marriage. Personally, the political leader may be a supporter of the traditional family or advocate for “improving” the institution of marriage. Modern family ceases to be a form of conservation of old relationships between parents and between parents and children. Development of market relations associated with spraying of property rights among many members of the society and high inheritance taxes make irrelevant the hereditary transfer of capital, i.e., from parents to children. Therefore, marriage as property relationships over its transition from one generation to the next one simply becomes a form of regulation of property relations between persons living together who may not have the status of “parents” at all.

The destruction of the classic marriage has its root cause in changes in property relations between people at household level. Political leader discovers these trends and uses them to his victory in the struggle for power. The result of the present economic trend is the drop in the birth rate, population replenishment at the expense of migrants, and other social issues which are usually economically and socially negative for the state. It turns out that society itself represented by an elected political leader contributes to its own destruction.

This self-destruction is possible if the state lives only by short-term goals and does not think for the long term. Current political decisions reflect occurring social processes even if they are negative for society in the future.

The short duration of the political goals of the state is directly related to the publicly necessary timing of political leadership. There are two types of leaders: a short-term leader who has been in power for only one or at most two relatively small “standard” terms and a long-term political leader who has been in power for many years.

Long-term political leader is the personification of the long-term goals of the society. The stage of their implementation manifests itself in a sequence of short-term goals. In this sense, only a long-term political leader is a true political leader.

The usual time frame of short-term political leadership is on average 4–6 years. Short-term leader is the person who has the title of “political leader” only in virtue of his place in the system of political governance. Short-term leadership is a formal rather than actual leadership because of the size of time interval.

Formal political leadership is evident in the frequent turnover of political leaders of the country. Each leader puts forward and maybe even solves some short-term (current) public tasks, but it changes nothing in the life of a majority of the members of the society.

4.4 The Basis of Short-Term Leadership

In our opinion, the type of political leadership is determined not by his personal qualities and not in the way that the leader realizes the set goals, for example, in a collective or dictatorial way of making political decisions (Brown 2016).

The dominance of short-term political leadership can be explained by the fact that the main common interest in a modern state lies in maintaining and developing relations which allow having personal wealth. Once society does not need to change these relations, it suffices with formal leaders.

A true leader is needed in order to formulate the strategic (long-term) objectives for the development of society and to guide their implementation.

Although the formal leader takes top state posts, political goals that lie before him are usually not his own objectives or goals that he put forward personally as a result of his own beliefs and efforts. Usually such objectives represent the most current, mundane, very short-term goals that are ripen in public opinion for one reason or another and require a solution. Such political goals are often not at all related to the objectives of any political party or, alternatively, refer to the objectives of the political parties who have no more or less long-term objectives. If society doesn't develop, a good and strong criticism of political opponents is more important for political victory than the nomination of their own political objectives.

A true leader is a different matter. The goals and objectives he puts forward are the fruit of his personal mind. He is like a special kind of politician-scholar who "opens up" strategic social goals and at the same time he is a scholar-practitioner who finds ways to implement these goals.

4.5 World Political Leadership

A new phenomenon of modern times is the emergence of global political leadership. A true political leader is not only a national leader but also a leader recognized by the citizens of many countries. He is a leader in whose face people of other countries find some incarnation of their human aspirations.

World political leadership occurs in two varieties: firstly, in the form of international political leadership when national leader becomes not only famous but also very popular and influential among the populations in many countries of the world and, secondly, in the form of supranational political leader that may be possible, for example, in the political system of the EU.

4.6 *True and Formal Leadership*

We cannot disagree that the role of political leadership is different in the era of change or the transitional stages of the development of society and in so-called “quiet” times (Mainwaring and Perez-Linan 2013). But the main thing in leadership is its actual public character. The “health” of the society can be judged on the nature of political leadership: true or formal. Formal leadership clearly indicates that there is no deliberate and universal need in substantial modification of existing public orders. The society of formal political leadership is a non-evolving society that can hide economic stagnation and spiritual decay. The lack of social progress inevitably causes numerous well-known negative effects: insignificant economic growth, lack of increase of living standards of the population, environmental problems, increase in the number of hungry and poor people, etc. If cessation of development of the individual lies in the finiteness of his short life, the termination of development of the state is laid down in the social relations dominant in it and is fraught with the cessation of its existence.

Long-term leadership always aims to fight but it could be the twofold struggle: a fight for necessary changes in society and, conversely, the struggle for the preservation of existing orders. These sides of political leadership can be called “progressive leadership” and “conservative leadership.”

Modern political leadership is based on the principle of short duration. As a result, we have a contradiction of the current democratic system. The true purposes of the development of society are its long-term strategic goals, but the current democratically organized political struggle is a struggle only for the short-term or purely current objectives. Hence, this is a fight only for private purposes which are relevant only to certain groups of society but not for its majority.

A short duration of political objectives is an inevitable consequence of the system of power based on political competition. Due to the existing political system, political leaders often succeed each other in the course of an acute political struggle. But as a result, continuity in their political purposes is usually impossible.

Long-term political leader is not a mandatory and necessary product of modern democracy based on elections and separation of powers when the society can vote but is not capable to set strategic objectives and put them into life. The ultimate goal of the formal leader is simply to keep the actual political system by solving the current problems endlessly arising from the chaos of public controversies.

Modern political leadership is limited to the terms of election of the leader. The only way to overcome these limits is to use methods of continuity of political leadership. Historical example is the transfer of political power by birth (inheritance) which was widespread in times of feudalism. Now this is a rare phenomenon at the level of the state.

If the role of state property is significant in the country, the political continuity can also exist in the form of appointing relatives of political leaders as heads of state companies and authorities.

Finally, the political continuity is possible in the form of replacement of the former head of state by the new leader recommended by him to society.

However, the true continuity of political leadership is such a replacement of leader by another one in which immutability of set long-term goals for the development of society is saved. It can be said that in such a case, alternate political leaders keep the same state policy approved by the society.

The short-term functioning of the leader is a political cause and political result of the fact that modern society develops spontaneously and randomly. Only a long-term functioning of a political leader, not necessarily in a physical sense but in the form of the continuity of the political objectives of successive leaders, is a political basis for social development when society itself manages its development. Competition between political leaders can even persist in the form of the struggle for power as such. But this struggle takes place only within the limits of the purposes for which society is oriented in the long run. Political competition becomes not the struggle of objectives but the fight of the methods and steps for achieving them and even the struggle for the criteria for their evaluation by the society.

The complete absence of political struggle as shown by the history of the USSR is the basis for the growth of the probability of taking wrong management decisions affecting the interests of the majority of society. That is why sooner or later this kind of political leadership concludes negatively for the leader and the country entrusted to him.

4.7 Conclusions

External paraphernalia of a modern democracy in the form of selectivity and changeability make sense when significant changes in society are not required. At the times of piece and well-being, there is hardly any need for leaders that would change the world.

At the same time, a short duration of political leadership itself can become the strongest obstacle to implement the changes that came to a head in society. This contradiction between development and preservation of public relations can become the basis for a long-term political leadership but as a conservative leadership aimed at preserving long-term existing public orders with which most members of society already disagrees. A strong political leader is capable to delay time of social change somehow. His tough policy can preserve the existing regime of power. Such cases are analyzed by Jason Brownlee (2002), for example.

In this case, the difference of true (progressive) political leader from the “strong” but conservative political leader is only one: the first one works for public progress, for the development of society; the second one works on the preservation of existing social conditions and relations. Accordingly, we can say that the first one will ultimately stay in history as a positive historical identity and the other one as a negative historical personality.

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Leadership of Territorial Communities: Local and Global Factors



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Abstract This paper analyzes the global and local factors of constitutional operation and development of local communities and their leadership positions in the context of regional development. The authors prove that in the terms of formation and development of legal democratic state, the role and importance of collective rights that arise and operate on the territory of acquiring and creating its own legal status are growing which include territorial communities and residents of the respective areas – community. Its role is particularly evident in decentralized public authorities when local communities as primary subjects begin to act as local government, on the one hand, constitutional role as the phenomenon of local democracy and on the other – institutional role as an essential element of civil society. However, in the process of economic, political, and legal globalization, and especially in international interstate integration, they also begin to play a relevant international legal role and to acquire appropriate signs of international legal personality. In these circumstances, they form legal environment for their existence and their activity turns into an object of international legal regulation.

1 Introduction

In the conditions of formation and development of legal democratic statehood, the role and significance of collective subjects of law that arise and function on the territory of the state objectively increase and acquire and form their own legal status and are characterized by the leadership qualities of the inhabitants of the respective territories – the community. Their leadership position is clearly evident and transparent in the context of the decentralization of public authority, when, on the one

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hand, territorial communities as primary subjects of local self-government begin to play a constitutive role in the formation of the phenomenon of local democracy and, on the other hand, an institutional role as the most important element of civil society (Mishra and Singhania 2014; Jiroudková et al. 2015).

However, when the processes of economic, political, and legal globalization, and especially in the processes of international intergovernmental integration, began to be concerned and scrutinized, they also begin to play the corresponding international legal role and assume the relevant features of an international legal personality (Janda et al. 2013). When such conditions become prevalent, the formation of legal environment for their existence and operation becomes an integral part of the international legal regulations and set of rules to be followed.

2 Literature Review

Since the 1990s, when in the national science the formation of modern views on the institution of local self-government began, the issues of municipal and legal issues were given much attention by many scholars whose scientific assets form the basis of the modern municipal-legal doctrine of the state. It should be noted that in recent years in Ukraine, a number of these have been defended, in which a scientific analysis of certain aspects of local self-government has been carried out. However, these works do not contain a comprehensive scientific analysis of the status of territorial communities as primary subjects of local self-government, nor do they consider the modern dichotomy of local and global factors that arise in the process of their functioning.

It should also be emphasized that the issues of local self-government and the territorial community (collective, community, leadership, etc.) were the subject of research by leading contemporary foreign scholars and other scientists – however, they did not consider the problems of functioning of the territorial community in conditions of interaction and antagonism of local and global factors.

It is alleged that local communities act as the opposite of globalization; they are carriers of local cultural space and powerful producers of local interest (Ciešlik et al. 2016). However, between local and global factors in world politics and thinking, there is a paradoxical relationship, cue characterized as opposition (dichotomy), and hence mutual communication. In such conditions local factor acts as an object of international legal regulation, and the local communities are a reflection of global trends (Jankelová et al. 2017). Moreover, they are a factor of increasing globalization (Strielkowski et al. 2016).

Local and global factors form a system of complex and contradictory vertical-horizontal connections that occur primarily in the global and local management and are aimed, on the one hand, to preserve the historical, geographical, cultural features of object management (local communities) that are in terms of everyday life and the second the development of optimal, efficient, productive, and stereotyped forms of

such control that are designed for an unlimited number of nonpersonal subjects, which have different legal status.

The level of territorial community is more favorable to the impact of global factors aimed at leveling its special features, the emergence of collective forms of social stereotypes, group, and individual life (Moiseyenko and Ryvak 2016). However, it serves as local community resistance to the fundamental subject of negative factors of globalization, because due to local interest that it produced and sold in the conditions of everyday life, it creates, maintains, and increases its identity.

In spite of all discussed above, the identity of the territorial community is influenced by the factors of globalization yet transformed, but not so clearly and not so fast, the reason for this situation is the work of community members to implement the guidelines in their life circumstances of everyday life based on local interest.

3 Methodology and Methods

The purpose of this article is to study the influence of local and global factors on the existence and functioning of a territorial community in modern conditions, as well as the influence of the territorial community as leaders on the formation and interaction of these factors.

The phenomenon of the territorial community consisting of people has become one of the trends of modern legal and democratic statehood, which clearly demonstrates the participation of the general population in the formation and implementation of public authority at its various levels – public government and public self-government (municipal) authorities (Baymuratov and Grigoriev 2003).

At the same time, this seems to be a purely local entity that arises at the local level of functioning of the society, and it includes in its composition only the inhabitants of the corresponding administrative-territorial unit of the state having different legal status (citizens, foreign citizens, stateless persons, refugees, etc.), carries a potential charge of globality, and influences it substantially. This is determined by the following arguments:

4 Local Communities as Antipodes of Globalization

Local communities are universal mechanisms for preserving the local identity of the local community. Identity (lat. “identitas”) is the quality of the human psyche to express in a concentrated form as it conceives its affiliation with various social, economic, national, professional, linguistic, political, religious, racial, and other groups or other communities, or identifies itself with one or another person, as the embodiment of qualities of these groups or communities (identity) Die (1984).

Therefore, the main feature of the territorial communities is that they are the worlds of everyday life (an identifier of the local community), where all social relations are based on direct relations between people (a communicative feature of the local community). It is fundamentally important here that the sphere of everyday life of local communities is the basic for the formation of local identities. Namely, a local identity is filled with solid information that is directly transmitted from generation to generation – traditions, beliefs, etc. (an ideological sign of the local community). These are they who act as these “initial” knowledge, from which the primary mentality is created – the mentality of local everyday life. At the same time, the processes of development and strengthening of local communities may well counteract the global mega-system, which seeks to rebuild the world only in its own interests (Makogon 2008). That is, the interaction between territorial communities and globalization originally arises as antagonistic relations, the relations of counteraction to the global trends, covering all peoples and their states.

5 Local Communities as Carriers of Local Cultural Space

The awareness of the unity of the world is the greatest achievement of globalization, but in such conditions, there are also corresponding negative tendencies characterized by the emergence of a unified cultural space, the basis of which is the common history, the only language of interethnic communication, a unified system of education, the general type of social activity, and the general geopolitical space. It is evident that these processes contain many different aspects. According to well-known German sociologist W. Beck, “globalization” is a politically effective concept, which includes “communication technologies, ecology, economy, organization of activities, culture and civil society” (Beck 2000). That is, we see that globalization arises, functions, and absorbs precisely the system of objects and values on the basis of which the territorial community exists and operates.

However, in order to preserve and not to disintegrate specific, peculiar local communities, we must be able to detect and analyze the circumstances that occur in communities under the influence of globalization. It is generally accepted that communities in the context of globalization fall into a situation of loss of peculiarity. In this context, the specific forms of communities under the functionalist influence of globalization are eroded and become socially “pale,” losing the level of their social influence. One of the well-known local community researchers M. Castells notes that globalization processes offset all local and historical manifestations: “My hypothesis suggests that the arrival of the space of global flows erases semantic relations between the society and its architectonics. The spatial manifestation of dominant interests permeates all the cultures in the world along and across, leads to the transfer of the knowledge of history and specific culture to the background, contributes to the general spread of non-historical, extracurricular architectonics” (Castells 2001). In other words, in fact, globalization is the antithesis of localism, in which territorial communities exist, operate, and develop – in its power it significantly impoverishes

them and reduces their individual and special characteristics to stereotypes, schematics, and simplicity in their forms of existence.

Global changes erode the existing differences between communities, their allocation becomes disadvantageous, but the local community, like the *topos* (from the ancient Greek – τόπος – a place), is the main bearer of the specific features of the social organization and the territory in which it operates. At the heart of such a phenomenon is the local interest, which serves the interweaving of territorial, collective, and individual interest (Baymuratov 1996).

6 The Local Communities as Powerful Producers of Local Interest

Local communities as a subject of research in socio-philosophical theory and practice from the earliest times are perceived as local unities that are opposed to globally circulating, homogeneous (homogeneous) flows. Namely, the inhabitants of the local communities perceive, understand, filter, select, reject, transform, or ignore such global influences and structural preconditions, correlating them with their individual, group, collective, and territorial interests, retaining their mental properties and peculiarities. Therefore, local communities can be represented as peculiar fields of resistance to globalization. Therefore, it should be emphasized that it is precisely this tradition of local resistance to global influence that is repeated in daily action, through deep immersion in everyday life and functioning in it, as well as the implementation of local governance directly or through elected bodies (Gryshova et al. 2017a; Gryshova and Shestakovskaya 2016), protecting and defending the interests of the territorial community and its members, not only strengthens local communities but also makes them socially strong and socially significant for the strength and power of the national state. Therefore, the state statism as an ideology, which asserts the leading role of the state in political life, including the subordination of interests of both individuals and groups to the interests of the state, as well as the policy of active state intervention in all spheres of public and private life (atatism), often prevails before such local communities and their determination to function according to their perceptions of everyday life.

There is a paradoxical connection between the home and world politics that run from dichotomy to interconnection. In socio-philosophical and legal discourse, lately, there has been an increase in attention to space, space (spatial turn), and its originality. At the same time, attention grows not only to space but also to local communities that are capable of opposing processes of the world globalization (Makogon 2012). However, there is one feature of globalization that can actively influence the lives of territorial communities – it is its ability to bring about competitive tendencies between communities. It should be noted that the competition itself is not a new phenomenon, but it has become interesting and possible to

position its community in the most recent due to the information and communication qualities of globalization.

However, the competition has a positive effect on the inner development of the local communities, because in the process of forming the image of the community, marketing research in municipal formations became an obligatory element that is taken into account by the strategic and tactical planning of their development and conservation. Under the influence of globalization, large communities really become the places of dynamic development, which inevitably leads to increasing heterogenization and polarization of metropolises, unlike peripheral communities. Therefore, the spatial order, which is globalizing, adheres to the principle: “*everyone according to his abilities, the strong – the strength*” (Aring 2005). Thus, it can be stated that the only effective way of the existence of territorial communities in conditions of globalization is their intensive development for the purpose of economic, political, social, and cultural strengthening and transformation into a powerful center of production of a system of local and already global interest – only in such conditions they represent a worthy level of resistance and simultaneously the subjectivity as a partner for globalization.

7 The Local Factor as an Object of International Legal Regulation

The process of creating supranational associations such as the Council of Europe, the European Union, and the expansion of global networks simultaneously increases the role and importance of communities as acting actors – the main operating value-oriented units. This is due to the fact that in such associations, the processes of legal globalization are intensifying, in which the local government plays the role of an important object of the international legal regulation. It is sufficient to recall the role and significance of international treaties regulating the role of local self-government and the legal personality of territorial communities adopted by the member states of the Council of Europe, the European Charter of Local Self-Government in 1985, the European Framework Convention on Transfrontier Co-operation between the Territorial Communities or Authorities in 1980, etc., as well as the strategic role played by the regions in the integration construction of a united Europe (the Declaration on the Regionalism in Europe in 1996). It is in this way that the local and the global items are bound.

The local communities in conditions of permanent development really have good potential, gaining real ability to compete. Based on increasing heterogeneity and dependence on problem situations in the subregion, the region, and the world, the sense of the local governance in the local communities is still not lost due to common unifying ideals and programs. Ironically, even aggressive agitation of its benefits by individual local communities gives rise to and expansion of opportunities for other communities, that is, even those who are in deep crisis. Because local communities,

indifferent to such changes, experience not only the danger of degradation, collapse, and stagnation, they are also exposed.

8 Local Communities as Reflection of Global Trends

The networking globalization promotes the mass forced or positive migration, movement, and growth of mass tourism. And this is reflected on the local communities that are already competing for the inhabitants. Local communities, the economics of these communities, especially in rich countries, produce not only abstract products but also traditional and new media, various financial instruments, their subculture, image, ideas, lifestyles and production, and new social communications that unite the inhabitants – that is, new and high-quality forms of the existence of everyday life that are attractive to other people who seek to become the residents of the territories, where these forms exist and successfully operate. The symbolism and culture of local communities also contribute greatly to the creation of world-class products, reducing the differentiation between culture and economy. The media industry is simultaneously a cultural industry, advertising companies are becoming cultural consultants (that is, producing products that are ready to be consumed) that have their own consumers, and urban tourism is becoming a lucrative, actively developing economic sector.

At the same time, it should be understood that globalization itself is not a decisive force, a dominant factor that solves something in local communities; this concept is used to empirically describe the forms of relations in them through networks. Global exchange relations and dependency relationships are divided into different qualities, namely:

- To achieve the network of economic community (business relationships, financial markets) (the formation of a local economic space through the influence of global instruments)
- The creation of a technological community (electronic networks, transport complex, electric and water supply) (the formation of local technological space, due to the use of everyday and new technologies having a global basis)
- The achievement of the cultural community (the exchange of ideas and consulate products, mobility in tourism or through migration) (the formation of a local cultural space due to the influence of elements of global culture, but with a strong local subculture)

From that perspective, depending on which aspect is taken into account, the level and identity of the connection to the global network of certain relationships in the local communities will be evaluated differently. Therefore, we consider it expedient both in the axiological sense and in praxis to apply a scale of globalizing processes and to deduce the level of interweaving of global relations and relations of dependence in local communities in several interacting fields: the territorial space and economic and sociocultural space.

These specific local field logics are opened by a classified signal of strengthening relations under the influence of globalization in communities; the specificity and originality of processes of homogenization (homogeneity) or heterogenization (heterogeneity) reveals through them. At the same time, the field of economic space at the present level demonstrates the problem of the lack of functionality of globally unifying solutions. In our case, there is a lack of local communities. The cultural globalization field, on the contrary, causes tendencies for understanding the place, local and home cultures in a counterweight to the hegemonic aspirations of Westernization and Americanization. That is, the cultural and spiritual growth based on the subculture formed within the territorial community is often observed.

However, it does not logically follow from globalization networks that globalization and homogenization (homogeneity) or heterogenization (heterogeneity) are put together in deductive correlation. The question of homogenization or heterogenization is particularly important in terms of cultural networking, regardless of whether this influence is accepted in the community or historically repeated. But in local communities, globalization and homogenization are not in conditional respect between each other. Homogenization processes in local communities can be observed both in temporary phases and in spatial features that are not interwoven yet in global networks, for example, in peripheral urban communities and in rural settlements.

9 Local Communities as a Factor of Strengthening Globalization

A historical excursion allows us to compare the phenomenon of globalization that arose in the postmodern era with the phenomena of expansion of large religions spread throughout the world (Christianity, Islam, Buddhism, Confucianism), but they also conceptually carry within their religions the desire for homogeneity (homogeneity). The postmodern era is characterized by its pursuit of universal recognition, at least through the victorious course of capitalism and the emergence of national states, as well as through the flourishing of science and its institutionalization at the national research universities (Gryshova et al. 2017b, c).

It is precisely in postmodern times that the process of formation of almost identically colored industrial communities and the explosive growth of urban agglomerations are in full swing. And this strengthens the role and significance of the territorial communities in the modern world. However, in this regard, G. Simmel, long before postmodernism, predetermined the possibility of such a phenomenon: "Punctuality, deductibility, accuracy, defining urban life, are not only in close connection with its economic, monetary and intellectual nature, but also improve the content of life, excluding its irrational, instinctive, sovereign features, essence and impulses that provide a vital form, they are perceived generally and schematically" (Simmel 1987). That is, he drew attention to the simplification, schematization, stereotypes of vital forms, and forms of local life in the conditions of globalization.

10 Conclusions

Summarizing the foregoing, the following conclusions can be drawn: first of all, at the level of territorial communities, there are complex diverse, diverse, and multi-objective links between the local and the global factors, having an objective character and affecting such communities, both in the positive and in the negative aspects.

Moreover, it appears that local and global factors of development form a system of complex and controversial vertical-horizontal ties that primarily manifest themselves in the process of global and local governance and, on the one hand, are aimed at preserving historical, geographical, and cultural peculiarities of the subjects of management (territorial communities) that are in everyday conditions and, on the other hand, to develop optimal, effective, productive, and stereotyped forms of such management that are designed for an unlimited number of nonpersonified subjects having different legal status.

In addition, it turns out that the level of the territorial community is the most favorable for the influence of global factors aimed at leveling out its special features and the emergence of stereotypes of forms of the social collective, group, and individual life.

At the same time, the territorial community itself acts as the main subject of resistance to the effects of the negative factors of globalization, because due to the local interest that is produced and realized by it in the conditions of everyday life, it forms, preserves, and multiplies its identity.

However, the identity of the territorial community under the influence of factors of globalization is still transformed, but not so obviously and not so quickly. The reason for such a state of affairs is the activity of members of the community in implementing their life guidance in the conditions of everyday life, which are based on local interests and goals.

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Implementation of Cost Leadership Strategy by Russian Medical Companies of Laboratory Diagnostics



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Abstract The purpose of the article is to present the results of the study, which included analysis of the peculiarities of implementing the strategy of leadership on the costs of the activities of Russian medical companies in the field of laboratory diagnosis. The urgency of the study is due to the need to find ways to improve the efficiency of healthcare in Russia. During the study, methods of comparative and statistical analysis were used. The study involved several stages. Firstly, the condition of the market for laboratory diagnostic research was studied. At the second stage, the structure of expenses for laboratory diagnostics and the formation of the cost of research by different types of laboratories were studied. At the third stage, the strategies inherent in these types of laboratories were considered. The result of the study was the consideration of the economic effect for the health system from the implementation of the strategy of leadership on the costs of medical companies in the field of laboratory diagnosis. Our study might as well be of a special interest for healthcare economy professionals.

1 Introduction

Cost leadership strategy is one of the common strategies of firms aimed at creating competitive advantages (Porter 1980). Using the cost leadership strategy, the company focuses on a broad market and produces products in large quantities, minimizing costs and offering low prices. This strategy is based on productivity and is usually associated with the existence of the effect of the curve of experience. If most buyers were sensitive to price, companies would try to lead by spending, increasing efficiency and lowering costs. The strategic goal is not the maximum reduction of costs (as well as stress and/or job satisfaction) by itself, but the achievement of

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maximum superiority over costs comparing to the competitors (Čábelková et al. 2015; Bordea et al. 2017).

In Russia, medical diagnostic services (functional and laboratory) are provided by state hospitals – research centers, polyclinics and public hospitals, as well as commercial organizations – medical centers, and independent laboratories. The main tasks of Russian healthcare are improving the availability and quality of clinical and diagnostic care, introducing new methods of diagnosis and treatment, increasing the efficiency of public expenditures on hospital maintenance, and improving the medical and economic efficiency of their functioning. This is similar to other countries (Vasylchak and Halachenko 2016) and other industries (such as energy and power generation) (Lisin et al. 2014; Lisin and Strielkowski 2014). At the same time, there is active development of the market of private laboratory diagnostics. The segment of private laboratories is relatively young for the Russian market of medical services; it started to develop in the mid-1990s. Private laboratories are forced to look for new formats of interaction with partners, as well as ways to reduce costs to compete with laboratories of public hospitals that have been traditional for Russian healthcare for many decades.

With regard to the above, it seems interesting to conduct a comparative analysis of the competitive strategies implemented by medical companies in the market for laboratory diagnostics.

2 Purpose and Methods of Research

The purpose of the study is to assess the peculiarities of implementing the cost strategy of leadership in the activities of Russian medical companies in the field of laboratory diagnostics. Methods of comparative and statistical analysis were used to achieve the goal.

3 Results and Discussion

A distinctive feature of the Russian market for medical diagnostic services is the prevailing state form of ownership. Another peculiarity is high indicators, which demonstrate the dynamics of the market for paid medical diagnostic services. This has to do with the issue of obtaining, processing, and working with information (Zielińska 2016). According to BusinessStat (2017), in 2016 the volume of the market for laboratory diagnostics in Russia amounted to 272.1 million studies.

According to the compulsory health insurance policies, which guarantee the possibility of free medical care to the citizens, 72.1% of the research was conducted, while the remaining 27.9% of the natural market volume was commercial services. It should be noted that a small proportion of independent (commercial) laboratories is specific not only for Russia.

Table 1 Number of laboratory methods used and number of studies in laboratories of various types in the USA (1999–2000)

Type of a laboratory	Number of laboratory methods	Share, %	Number of studies, millions	Share, %
Hospital	8560	5	2958.2	52
Independent (commercial)	4936	3	1514.2	26
Laboratories in medical offices	105,089	62	656.4	11
Other	51,517	30	597.1	10
Total	170,102	100	5725.9	100

Source: CMS (2000)

Table 2 Number of medical laboratories in Russian hospitals (2006–2012)

Type of a laboratory	2006	2007	Growth/decline, %	2011	2012	Growth/decline, %
Microbiological (bacteriological)	965	970	5.2	978	1131	15.6
Immunological (serological)	546	541	−0.9	573	749	30.7
Biochemical	510	448	−12.2	295	561	90.1
Cytological	278	279	0.4	253	329	30.0
Coagulological	60	66	10.0	67	236	35.2
Clinical and diagnostic	8103	7942	−1.9	11,101	12,995	17.1
Total	10,462	10,246	−2.1	13,267	16,001	20.6

Source: Kishkun (2011)

In the US market of laboratory services, the share of independent (commercial) laboratories is 3%, and laboratories in medical offices are the dominant type (Table 1). According to the number of studies in the market for laboratory diagnostics, the USA is leading in the hospital laboratories – 52%. The second place is occupied by independent (commercial) laboratories – 26%. Laboratories in medical offices, despite a quantified majority, perform only 11% of all studies (Table 1).

In Russia, the situation with the number of laboratories varied depending on the economic conditions in the country. In the middle of the first decade of 2000, there was a decrease in the number of state hospital laboratories, and starting from 2011 there has been an increase in their number (Table 2).

The greatest increase was observed in the number of biochemical laboratories (90.1%) and coagulological (35.2%). Clinical and diagnostic laboratories remain the most common type of diagnostic laboratories in Russia. However, at the same time and despite a significant increase in the number of laboratories, the increase in the number of laboratory studies was incomparably less, 7.9% and 9.6%, respectively, which raises the question of the effectiveness of their functioning (Table 3).

Table 3 Annual volumes of laboratory research in state hospitals of Russia, thousands of tests

Test groups	2009	2010	2011	2012	Aggregate annual growth rate, %
Total	3,479,024	3,653,127	3,704,745	3,968,659	4.5
Hematological	1,061,254	1,121,284	1,127,517	1,214,018	4.6
Other tests (not included in the above groups)	1,184,630	1,182,727	1,203,567	1,253,539	1.9
Biochemical	669,725	732,982	764,493	840,881	7.9
Immunological	278,555	290,136	294,084	314,880	4.2
Microbiological	143,531	169,655	151,259	169,954	5.8
Coagulological	96,466	107,811	115,584	126,937	9.6
Cytological	44,863	48,533	48,242	48,450	2.6

Source: Kishkun (2011)

Table 4 Number of laboratory methods used in laboratories of different types in Russia

Type of research	Laboratories of public (state) hospitals	Commercial laboratory
General clinical	18	32
Hematological	20	20
Biochemical	30	93
Coagulological	10	12
Hormonal	14	47
Immunological, serological, DNA diagnostics	24	142
Total	116	346

Source: Kishkun and Guzovskiy (2007)

According to the research of Sveshchinskiy (2013), in 2012, within the framework of one hospital, an average of 2.4 laboratories operated. Thus, “the trend which is typical for many countries towards the centralization and consolidation of laboratories” is not obvious in Russia, although it can generally be noted that the trend toward the growth of aggregate volumes of laboratory research is correlated with the global vector (Gupta et al. 2012).

Attention is drawn to the fact that Russian laboratories at state hospitals and independent (commercial) laboratories differ in the number of laboratory methods used. As can be seen from the data of Table 4, in commercial laboratories three times more laboratory methods are used. The most essential laboratory in state hospitals is inferior to the number of used methods of immunological and serological research and DNA diagnostics (almost 6 times), hormonal studies (3.3 times), and biochemical studies (3 times). Comparable data are characterized only by coagulation and hematologic studies.

Table 5 Structure of laboratory analyses in Western Europe and Russia, in %

Type of research	Laboratories of public (state) hospitals	Commercial laboratories	Western Europe
Hematological	30.6	26.0	30.0
General clinical	31.6	15.5	1.5
Biochemical	21.2	30.0	55.0
Immunological	7.9	14.0	6.0
Bacteriological	4.3	13.0	4.5
Coagulological	3.2	n/a	n/a
Cytological	1.2	n/a	n/a
Total	100.0	100.0	100.0

Source: Kishkun (2014)

There are also differences in the structure of laboratory tests performed by Russian laboratories in public hospitals and independent (commercial) laboratories (Table 5). In laboratories of state hospitals, more general clinical and hematological studies are performed (62.2%). In commercial laboratories, 41.5% of all clinical and hematological makes up 41.5% of research, with a significantly higher proportion of immunological and bacteriological studies (14.0% and 13%, respectively).

Comparative data from Western Europe show that biochemical and hematological studies dominate the structure of laboratory tests in these countries, 85.0% of all studies, respectively (Evgina 2006). The fundamental difference from Russian practice is the demand for general clinical trials that is only 1.5% in the overall structure versus 31.6% in the research structure of the laboratories of state hospitals in Russia (Table 5).

Thus, Russian laboratories at state hospitals and independent (commercial) laboratories have different potentials for functioning in the market and are forced to choose different business strategies.

Laboratories at state hospitals are provided with a stable flow of patients through a system of compulsory health insurance. In comparison with private laboratories, they do not have a part of constant costs (e.g., for the repair of premises or rent), since this is paid at the expense of the budget. They have an opportunity to purchase the missing research from independent laboratories at a lower cost through conducting electronic auctions. But along with the noted advantages, they are behind commercial labs in a number of positions. First of all, this is a low level of service for patients, not always a wide range of studies, a predominance of low-informative species in the structure of research, work on outdated equipment with a high degree of depreciation, or its complete absence (in rural and inaccessible areas).

Among the main competitive advantages of independent (commercial) laboratories, there are maximum automation of all processes, the use of modern laboratory equipment and consumables of leading manufacturers, regular in-house laboratory quality control for all indicators, continuous improvement of technological processes, developed logistics service, and more flexible response to consumer requests.

Russian state hospitals, including their laboratories, have the task of ensuring an increase in the efficiency of state budget expenditures. Independent (commercial) laboratories operate under conditions of growing competition. The market of commercial laboratory diagnostics in Russia originated in the 1990s of the twentieth century and is now becoming more concentrated. Among the most promising areas for reducing costs and improving the economic efficiency of the laboratory are (William 1996):

- Flexible purchasing system (contributes to a reduction in costs up to 17%)
- Wholesale purchases (contributes to a reduction in costs up to 16%)
- Control over personnel and workload (contributes to a reduction in costs up to 11%)
- Inventory of used equipment (contributes to a reduction in costs up to 10%)

Weinstein (1981) conducted studies to assess the economic efficiency of performing various types of analyses. The results of his research indicate that "... regardless of the number of analyses performed on each request per patient, if the number of tests performed by the laboratories exceeds 2,000,000 a year, then the average cost of 1 analysis is always minimal. If the laboratory performs an average of 56,000 analyses a year, the average cost of 1 analysis can be reduced by half only if more than 300,000 tests per year are performed."

In their study Kishkun and Guzovskiy (2007) conclude that the more tests a laboratory performs, the lower the negative effects of reagents, equipment, calibrators, control materials, maintenance of equipment, and consumables on the cost of laboratory studies are. And a significant reduction in the cost price allows maximizing profits.

Study of Gilmanov et al. (2013), focused on the example of the clinical and diagnostic laboratory of a large multidisciplinary state hospital, showed that with the centralization of the laboratory service, the load capacity of the equipment increased by 95%, the average cost of the analysis decreased by 212%, and the coefficient of economic efficiency was 212.6%.

Bailey (1999) compared the cost of performing the test panel (sodium, potassium, ionized calcium, glucose, hematocrit, pH, pCO₂, and pO₂) in the laboratory for rapid diagnosis and in carrying out these tests by the staff of the intensive care unit in a large hospital for 1000 beds. His research has shown that the cost of conducting these studies by the staff of the intensive care unit is less than in the conditions of the express laboratory. This served as the basis for changing the structure of the hospital's laboratory.

The cost structure of laboratory services of various types was analyzed. Six laboratories of various capacities and types served as objects of sample research: two laboratories in the structure of state hospitals of small towns (with a population of up to 100,000 people), two laboratories in the structure of state hospitals in large cities (with a population of more than 1 million people), and two independent (commercial) laboratories.

The wage staff costs traditionally prevail in the structure of costs (from 59% to 66% for different types depending on capacity) at state hospitals, and the remaining

Table 6 Structure of costs of one laboratory research in laboratories of different types, in %

Indicators	Laboratories in the structure of public hospitals in small towns (with a population of up to 100 thousand people)		Laboratories in the structure of public hospitals of large cities (with a population of more than 1 million people)		Independent (commercial) laboratories	
	No.1	No.2	No.3	No.4	No.5	No.6
Direct material costs (reagents)	26	24	25	23	30	32
Wages of laboratory personnel	66	64	59	56	37	41
Operating costs	3	2	5	7	12	11
Overheads	9	10	11	14	21	16

Source: Own results

expenditures are funded on a residual basis (Table 6). In independent (commercial) laboratories, the cost structure is more closely aligned with foreign standards: 37–41% of the cost is for the salaries of key personnel and 30–32% for reagents. Thus, according to the US standards that must be met by commercial laboratories, wage costs should be no more than 40% of revenue, security no more than 15%, and indirect costs no more than 35% (Fantus 1990).

An analysis of costs shows that with increasing number of studies carried out by the laboratory, profitability increases. The data in Table 7 shows that the profitability of research in laboratories in public hospitals is significantly lower compared to commercial laboratories, primarily due to differences in the volume of research. Having relatively comparable direct production costs and increasing volumes of ongoing studies, it is possible to reduce other overheads. While maintaining mid-market research prices for retailers and corporate customers, the opportunity to reduce costs gives the lab additional profits and conditions for dominance over competitors.

If price competition prevails on the market, as it is the case with the Russian market of laboratory diagnostics (Table 8), most buyers are sensitive to the price, and the product is homogeneous, and companies try to lead in the costs. At the same time, the strategic goal is not to get the maximum reduction of costs by itself, but the achievement of lower total costs in the whole chain of cost creation compared to competitors and the establishment of control over the market price. Reducing the cost of medical companies in the field of laboratory diagnostics can be achieved through reorganization of the value chain or its individual units due to factors such as the scale, training and accumulation of experience, the acquisition of key resources, the introduction of new technologies, control over the “clutches” of the chain of cost creation, etc. In the field of laboratory diagnostics, such components are the costs of acquiring and maintaining medical analyzers, the cost of consumables, and logistics expenses for delivery of biomaterial. At the same time, implementation of such a strategy requires access to sources of cost reduction, active investment and innovation activities, strict control over the level of production costs, and the availability of strategic assets and competencies.

Table 7 Elements of managerial accounting of laboratory service expenses (study of albumin), US dollars

Indicators	Laboratories in the structure of public hospitals in small towns (with a population of up to 100 thousand people)		Laboratories in the structure of public hospitals of large cities (with a population of more than 1 million people)		Independent (commercial) laboratories	
	No.1	No.2	No.3	No.4	No.5	No.6
Sales of analyses, quantity	90	100	150	160	800	900
Price of one study	1.7	1.6	2.1	2.2	3.3	3.8
Sales revenue	156.3	156.3	312.6	347.3	2639.8	3438.7
Direct basic materials for one study	0.5	0.5	0.5	0.4	0.4	0.3
Wages of direct production personnel for one study	1.0	0.8	1.0	1.0	0.7	0.8
Direct production costs per study	0.1	0.1	0.1	0.1	0.7	0.6
Overhead production costs per study (according to the coefficient K)	0.0	0.0	0.1	0.1	0.2	0.2
Cost of one study	1.6	1.4	1.7	1.7	1.9	1.9
Gross profit per one study	0.2	0.2	0.4	0.5	1.4	1.9
Administrative costs per study	–	–	–	–	0.3	0.3
Amortization for one study	0.1	0.1	0.2	0.2	0.3	0.4
Net profit or loss per one study	0.0	0.1	0.2	0.2	0.9	1.3
Net profit or loss, in% to sales	2	3.3	8.5	11.3	25.8	33.2

Source: Own results

4 Conclusions

Thus, for Russian medical companies in the area of laboratory diagnostics, there are prerequisites for applying a low-cost strategy. But this is more typical for the development of independent (commercial) laboratories. The urgency of centralizing the laboratory services of state hospitals is actively discussed in the medical community, but no active steps are taken at the state level. State hospitals are trying to use the opportunity to reduce the cost of laboratory diagnosis at the expense of state contracts for the purchase of research from outside laboratories, which are won on a competitive basis, and one of the conditions of victory is the price decline. For example, the reduction of the initial contract price at an electronic auction may reach 75% in individual cases.

The experience of foreign countries testifies that the provision of laboratory services is the most profitable branch of medical activity. In the USA, net profits from hospital laboratory activities reach 14 million US dollars a year. At the same

Table 8 Selective data on the cost of research in the market of laboratory diagnostics in Russia, US dollars

The title of the study	Laboratories in the structure of state hospitals of small towns (with a population of up to 100 thousand people)		Laboratories in the structure of state hospitals of large cities (with a population of more than 1 million people)		Independent (commercial) laboratories	
	No. 1	No.2	No.3	No.4	No.5	No.6
Urinalysis by Nechiporenko	2.6	2.5	3.1	3.0	3.5	4.3
Cytological examination of the material of the dairy or thyroid gland	5.6	5.0	8.3	8.7	10.8	12.0
Determination of blood type and Rh factor	7.1	6.1	8.7	8.3	8.7	10.1
Diagnosis of the antigen “s” of the hepatitis B virus (HBsAg)	–	–	4.3	3.8	4.7	6.9
Diagnosis of antibodies to cytomegalovirus IgM	–	–	4.3	4.2	5.9	10.8
Determination of antibodies to glutamate decarboxylase (GAD)	–	–	15.6	15.3	21.0	28.6
Determination of the level of histamine	–	–	17.0	16.5	22.6	38.2
Histological examination of the endoscopy material of the stomach with additional staining for <i>Helicobacter pylori</i>	–	–	33.8	28.6	39.9	54.3

Source: Own results

time, only 5% of the total annual budget of the clinics (Corinne 2017) accounts for the cost of providing their activities. At the same time, the problem of achieving the economic efficiency of performing laboratory studies is much wider. The costs of performing laboratory tests have a direct impact on the cost-effectiveness of diseases. An example is the study of the US Centers for Disease Studies, which evaluated lifetime costs and benefits from diabetes screening compared to current clinical practice (CDC 1998). In evaluating the effectiveness, the saved years of life were counted. The total economic effect of screening was 35,768 US dollars for each year of saved life. A study of Frazier et al. (2000) in the area of assessing the effectiveness of colon cancer screening methods proved that the use of more modern screening techniques yields an economic effect of 92,900 US dollars per patient's saved year of life.

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Personality and Charisma as Prerequisites for a Leading Position in Public Administration



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Abstract This article reviews the empirical literature on leadership, charisma, and personality of the charismatic leader. Knowledge from the professional literature about leadership mostly talk about what a leader should be like or his personality traits and describe the different leadership styles and types of leadership. Leadership is a real phenomenon, which is about the performance of teams, groups, and organizations. Good leadership then promotes effective team and group performance; on the other side, bad leadership degrades the quality of life for whole team, practically for everyone associated with it. Personality and especially then charisma predict leadership, it means how we are able to lead, and this information can be used to select or to educate good future leaders or improve the performance of current incumbents.

1 Introduction

Orchestras can have excellent violinists and wind instrument players; they can perform a wonderful song together now and then and might have impressed someone with their skills before, but if they do not have a great conductor, they might not perform well. Each and every performance needs to be carefully designed and prepared, but it also needs to be perfectly conducted.

Nowadays, it is not enough for the company's success to rely upon the traditional view of traditional managers who can only plan, organize, measure, control, and

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report, because they are in the successful organizations replaced by those who are able to incite employees to achieve a common goal (Čábelková et al. 2015). Real leaders can take advantage of the skills and potential of their employees; they can get many very good ideas and ideas from them. Real leaders can also cope with stress and relieve the others from stress (Bordea et al. 2017). The style of leadership, which only orders, bans, or even intimidates, has a demotivating effect on employees.

One would probably agree that there are people who are natural leaders. Many good leaders have the talent to do this. It can be said that leadership is the ability or skill that can be taught for the most part, verifiable and improved in practice. The leader is not a certain type. There is also no style of leadership that would “fit” your personality. Lord Slim said: “the style of leadership, it is you”. Successful leaders might be very different. Everyone has strengths and weaknesses, specific personality, and character, but these are different in each. Therefore, if someone wants to become a good leader, they have to start by themselves. They need to know their strengths and weaknesses. Weaknesses can be compensated by team members. Therefore, it would be a mistake to choose the co-workers who are of the same type. This is often not the case in organizations, as it would mean the manager’s humility and awareness of his weaknesses, which, however, subordinates ultimately receive positive.

The real leader is a person who becomes this leader only when she or he begins to recognize her or his subordination. Despotic individuals are neither elected nor accepted as leaders. Where cooperation is needed, effective leadership is based on respect and trust. The leader often commands, but he should do it democratically. The result of effective leadership is a good team.

2 Methodology and the Method of Analysis

The methodological basis of research is the system of methods of scientific cognition as a general scientific (dialectic, formal logical, analysis and synthesis, modelling) and special (historical, legal, functional, legal, etc.) that enables to achieve the goal and creates methodological basis of the article. An extensive literature search was conducted using the following electronic databases: Scopus and Google Scholar. The search aimed to identify previous articles which discussed examined issues touching leadership and charismatic leader. There was no time limitation; however the research was limited to only articles written in English. The title should have “leadership”, “leader”, “personality”, and “charisma” terms within it. The keywords and phrases used in the research include (leadership) and (charisma). Original and peer reviewed articles were considered for this review.

The results of the main objective are the following sub-objectives of the research, based on a complex characteristic of leadership:

- To explain how a leader use their power and influence in practice, how they influence events in the business, and what tools they use

- To describe the ways and means used by a leader to inspire followers
- To deepen and broaden the knowledge of when and how a leader mobilizes and encourages their employees
- To clarify what makes a leader and to enhance people's confidence towards them and used obligations in their work with people

3 Literature Review

Leadership is a topic that is now a matter of high interest and attention, which is reflected in a large number of books and articles on the subject. Leadership is so often the subject of the articles and studies that the books published on the subject in recent years have sometimes even not concerned by defining the term “leadership” and to describe leadership is thus necessary to head to the dictionaries, textbooks, or articles that are very old. Despite the enormous amount of professional and popular literature, the concept of leadership is associated with many unanswered questions and controversial conclusions.

One of the most important theoretical problems is the lack of uniform definitions of leadership, resulting in a lack of practically applicable characteristics of leadership activities (Jankelová et al. 2017). Findings from the literature mostly talk about how to act like leaders, emphasize their personal characteristics, or describe different leadership styles and types of leaders (Strielkowski et al. 2016, 2017). A leader is mostly seen as a complex entity equipped with features that make him ideal in the role of a leader. Excessive research of characteristics made in the past decades, however, did not reveal which features guarantee leadership success (Northouse 2010).

Basically, the point is that the leader is the one who comes up with interpretations of the situation (reality), and his followers are those who accept this interpretation and behave accordingly. Leadership is then a process that relates both to the interpretation of reality by the leader and to the acceptance of this interpretation of the followers. The more recent definitions, compared to the older ones, reflect more the led man. They do not only make it a passive object of leadership (someone with whom it is manipulated) but an active agent who can make decisions (Koudelková and Svobodová 2014). For example, “in the context of regional development also raises the question of what types of institutions and stakeholders should form a so-called top management with right leadership in the process of implementation of the strategic goals and objectives” (Čajka and Rýsová 2008). Within that view of the leading factors in regional development there are such aspects as regional identity of actors active in the regional context (see more Dušek and Skořepa 2007, 2014; Dušek 2015).

Practical examples show that also the personality that does not have the selected features may be an effective leader too. “Beyond our personal awareness, research has shown that the quality of leadership helps meet the expectations of investors, customers, and employees” (Smallwood et al. 2008). On the other hand, it cannot be

explained why leaders even though they possess leadership characteristics based on the research, unexpectedly fail.

Compared with the extensive research approach based on characteristics of leaders, we know very little about what leaders actually do in their daily work or how they do it. Comprehensive studies on this topic exist, resulting in a completely non-specific and metaphorical understanding of the whole concept of leadership based on personality, charisma, or holding certain positions (Moskalenko and Yevsieieva 2015). Leadership should be seen more widely and along explore the characteristics of leadership and leadership style, as well as how are leaders manifested outwardly through their work and what is the nature of leadership work. Comprehensive understanding of leadership involves not only the personality of a leader, his value orientation, properties, and characteristics, i.e. “Who is a leader?” and a style of leadership used by a leader, that is, “How does he/she lead?”, but also actions that a leader performs, i.e. “What is he/she doing in fact?”.

4 Charismatic Leader

Whether we take the leader as a change agent or as the vision creator, in a behaviour of an effective leader, is the importance of creating the vision of the organization while supporting staff members (Blase and Blase 2004; Lambert 2003). An effective leader will motivate team members to seek a worthy vision because it promotes growth for all (Yukl 2009). The good leader must be flexible and adapt to the ever-changing climate in order to provide what is needed by whom and when (Fullan 2010). To effect change, leaders must assume diversified roles (Fullan 2010). Diverse roles include, but are not limited to, thinker, believer, resource acquirer, leader, supporter, delegator, and information provider (Woods and Martin 2016). According to Yukl (2009), principals leading change, referred to as change agents, create a viable vision and work with the stakeholders to establish and work towards a shared vision by building leadership capacity within the stakeholders. Support of the vision may be accomplished through many avenues: observation, feedback, reflection, resources, professional growth opportunities, and developing skill sets (Bush 2003). McLaughlin and Talbert (2006) shared that creating a visionary culture of a school will not occur without the principal. Further, the principal is the creator of culture, either intentionally or not (McLaughlin and Talbert 2006).

Managing to achieve your goals in organizations uses a variety of resources. All resources – raw materials, material, energy, information, finance, people, know-how, and so on – are very important for the organization’s existence.

According to the New Oxford American Dictionary (2010), the term charisma (pl. *charismata*, adj. *charismatic*; from the Greek *χάρισμα*, meaning “favour given” or “gift of grace”) has two senses: (1) compelling attractiveness or charm that can inspire devotion in others and (2) a divinely conferred power or talent. Generally, people usually have an exact theory on what it means to be charismatic or to have charisma, but mostly they have difficulties in finding the right definition for it, but at

the same time, they are sure they know charisma when they see it. Riggio (2009) means under charisma constellation of personal characteristics or qualities that allow an individual to influence others by affecting their feelings, opinions, or behaviours. Tkalac Verčič and Verčič (2011) proposed a definition of charisma as the perceived ability of an individual to be a good communicator, be inspiring and visionary, be honest and reliable, attract other people's attention, and be dominant in uncertain situations.

As defined by Grabo et al. (2017), although the term charisma dates back to antiquity, the modern resurgence of interest in the study of charismatic leadership is typically credited to the theories of sociologist Max Weber, who described it as one of the three sources of authority which exert the most powerful influences on society (Weber et al. 1947). He characterized the charismatic form of leadership as being primarily driven by a belief in the unique and exceptional qualities of one particular individual and suggested that the rise of such individuals was often associated with rapid and radical changes. For Weber, the power of charismatic leadership, and the "authority" which such figures are granted, could be best understood at the societal or institutional level. Weber's theory has since been expanded upon by numerous researchers seeking to draw a causal link between attributions of charisma to particular individual leaders and broader, societal-level factors, such as the perception of external threat or internal crises.

Moreover, Grabo et al. (2017) proposed that charisma is best understood as the result of an interplay between evolved followership mechanisms, contextual factors, physical and social cues from potential leaders, and active signalling on the part of the potential leader – the sum of which constitutes their charisma. Leadership and followership, at the proximate level, consist of a set of psychological mechanisms which enable one individual – the follower – to make automatic, rapid, and accurate assessments about the likelihood that a leader candidate will be successful in coordinating the activity of others, based on any available sources of information (Grabo et al. 2017).

Successful leaders discover that other people are good at charismatic leadership and emphasize symbolic leadership behaviour that transforms employees into monitoring organizational goals over their own interests. Charismatic leaders use visionary and inspirational messages, rely on non-verbal communication, refer to ideological values, seek to intellectually stimulate employees, create self-confidence and followers, and set high expectations. The essential charismatic leadership requirements include the following elements:

1. *It must meet the expectations because it only gains respect and willingness to cooperate.* Leadership is not just a task, it would not be necessary then, and we could only be satisfied with basic managerial skills. As we have already said, the leader is not only a leader in positioning, but a leader in the position he creates. The main characteristic of the leader is that it is for his team and every individual in it. Collaborators should respect and respect their leadership and should be willing to work towards the goals. In every situation, they must feel that their leader is really one of them.

2. *Should be perceived as the “best of them” in the group; he/she must be able to manage and link the expertise of team members.* Understandably, leaders also have the formal authority that results from their function or position. However, as we know from real situations, this may not be a guarantee of respect or respect. For the leader, formal authority is not its main engine of strength. She does not need to keep bending her and screaming to the world that “I am the boss, I have a high position and now everything will be in my eyes!” An effective leader does not need to use phrases: “You will do as I ordered you. Do not shout and do what I preach”. Why? Because of its natural authority, it has a high degree of impact. He gives his team an example; people trust him and know that they can turn to him and the leader will be helpful. Leader can naturally get people to collaborate by excitement and motivation. Leaders are the people behind such a leader, not only do the tasks they are assigned, but are also willing to give extra. Just for the awards they receive.
3. *Leader must be perceived at the same time as “most of them”, that is, be some of the standards and values that are important to the group.* Leader communicates with his people: he enters the role, discusses the strategies, expresses his support during his work, and expects that each of them will give maximum and will answer the task responsibly. They are not afraid to put their hands on others. He knows he can trust them and believes that such a ledge is because he is fully devoted to the leader and therefore focuses on the task not because of pressure and stress but because of the trust that has been put into him and because he feels to be a part of a whole. Effective leader listens. And often he does not need to talk constantly. He watches things and especially does not see everything just black and white but recognizes a million shades. Leader is a person who does not assign tasks to the cross as he wakes up and as he pleases. He thinks deliberately. Leader can recognize strengths and assigns tasks to each member of his team to make full use of his/her natural potential. Generally, one can say that the charismatic leadership includes the following features:
 - Emphasizes symbolic leader behaviour that transforms employees to pursue organizational goals over self-interests

Furthermore, the charismatic leaders usually display the following features:

- Use visionary and inspirational messages.
- Rely on non-verbal communication.
- Appeal to ideological values.
- Attempt to intellectually stimulate employees.
- Display confidence in self and followers.
- Set high performance expectations.

5 Personality of Leader

Personality of a leader plays an important role for inspiration; we detected how big importance do the leaders attribute to charisma in leadership. Charismatic leaders have some exceptional personal characteristics and exhibit a specific type of behaviour. Two-thirds of surveyed leaders are aware of their charisma, but they do not work purposefully with it. Only 4% of leaders said that they try to “grow” charisma. The leaders in the studied companies have the opinion that the charisma is essential for leadership. Charismatic leader is able to attract, persuade, and get people to their side in a natural way. He acts positively and builds trust, and therefore people follow them. If a leader is not charismatic, they have to use power. Leaders often perceived charisma as a fluid. Interesting is that the term fluid was used originally in the older physics and means “a presumed invisible substance of radiating energy”. Participating leaders thus perceive charisma as a radiation of a person, and it creates an atmosphere. Personality traits can be described as stable personality traits that manifest themselves in consistent patterns of behaviour. They are then “relatively immune to situational influences - persons with certain characteristics expressing specific predispositions to behaviors should respond (behave) similarly to different situations, putting different demands on the behavior of the human” (Zaccaro et al. 2004). Leadership traits are then “a set of relatively stable and coherent personality traits that lead to a consistent leadership behavior of the leader resulting from different situations in a group or organization” (Zaccaro et al. 2004). According to Zaccaro (2007), the identification of the personality, cognitive, and interpersonal factors of a successful leader allows predicting the future leadership effectiveness and thus the choice of leader. Zaccaro et al. (2004) offered a model of how leader attributes influence indicators of leader performance. This model is based on other models of leader individual differences and performance (Mumford et al. 1993; 2000) and rests on several tested premises about leader traits. The first premise argues that leadership emerges from the combined influence of multiple traits. With regard to the above, Yukl (2009) summarizes the features that affect the effectiveness of a man in a leading position in ten areas:

- Level of energy and stress tolerance
- Self-confidence
- Internal locus of control
- Emotional stability and maturity
- Power motivation
- Personality integrity (personal integrity)
- Narcissism (narcissism)
- Performance orientation
- The need for proximity (need for affiliation – unlike the other characteristics above correlated negatively)
- Personality features of the “Big Five”

The personality characteristics of the leader predict the performance of the leader directly and indirectly. Possible explanation of the indirect influence of personality traits (including personality traits) is given by Zaccaro (2004), which summarizes the attributes of an effective leader into six groups divided into two areas. Distal attributes include cognitive abilities, such as personality traits (such as using the Big Five model), motives, and values. So-called proximal attributes include social skills, problem-solving skills, and expertise and tacit knowledge. Distal attributes that have the character of personality traits affect the effectiveness of the leader over proximal attributes that have the character of managerial competencies or managerial skills (see the previous subchapter). Simplified, therefore, personality characteristics affect competencies and competencies and then influence the effectiveness of the leader.

Study of Furnham and Crump (2015) examined personality differences in managers at different levels. It showed on all three measures a range of predicted differences based on the literature. It was based on the assumption that in adulthood personality trait (temperament) changes are very small; therefore by doing cross-sectional work, it is possible to argue that certain personality traits are associated with promotion or selection for senior positions. These traits possible influence both the choice of job and ambition for advancement as well as how people are seen by others who may be involved in the promotion of individuals. It does however not necessarily imply that those traits are associated with successful management or leadership at high levels. It is of course possible to argue that jobs change personality and that while people may choose or get chosen for jobs, they in turn are changed by the experience of doing those jobs. There is however very little evidence of the latter being the case. Certainly, potential leaders have to learn different behavioural repertoires as they change jobs to fulfil various criteria. Hence one finds “socialized” extraverts who are basically introverts who learn to behave like extraverts or trained agreeable types who learn the script and skills of dealing with poor performance and giving negative feedback (Furnham 2008).

According to this study, leaders need to be stable because they need to be easily and naturally able to cope with the stress of the job. They would not cope well if they felt vulnerable, anxious, depressed, or lacking in self-confidence. Leadership jobs are often stressful and that those prone to stress (i.e. neurotic) would cope less well. Thus neurotics are less likely to seek out leadership positions or be appointed to them (Howard and Howard 2006). Senior managers tend to be more extraverted possibly for three reasons (Hogan 2006; Howard and Howard 2006). First, leadership is to a large extent a very interpersonal job spent in meetings, persuading, negotiating, etc. Second, extraverts tend to be more socially skilled with higher emotional intelligence as they have learnt these skills because they have long sought out people as a source of stimulation. Extraverts have more energy and tend to be more socially assertive. Third, extraversion is associated with optimism, positive emotions, and subjective well-being which tend to be attractive to followers. Senior managers are also more tough minded, less modest, and compliant because business often requires this of individuals (Howard and Howard 2006). Interestingly, the facet analysis suggested seniority was associated positively with trust but negatively with all the

other facets. That is, they tend not to be cynical and sceptical but disagreeable in the tough no-nonsense approach (Furnham and Crump 2015).

6 Leader in Public Administration

Within a democratic system, administrative positions are closely bound to legitimacy, both of origin and exercise. A lack of such legitimacy would challenge the access and sustenance of power. Furthermore, to hold an administrative position is linked to a variety of special duties and limited domains. In the political theory, there exist two concepts, auctoritas and potestas, which help to understand this fact. Auctoritas implies that those who hold power have to be legitimized by means of their capacity to meet citizens' expectations, that is to say, to be able to develop a legitimate political discourse, to make the right choices in strategy, and to achieve results. However, potestas is more related to the power source and has to do with the space and time in which it is possible to exercise power in accordance with the constitutional or legal framework (Villoria and Iglesias 2011). As summarized by Stare (2014), the traditional view of leadership in central government units is that it is an organizational form for executing political decisions. This means that members of the executive in this organizational form do not set the operational objectives themselves but are required to respect and achieve objectives set for them. It includes the theory that employees on principle avoid work and their results are best if they are coerced in some way and closely supervised. The first leadership principles and models were designed on the basis of an autocratic leadership style. Noteworthy theoretical contributions include Weber, McGregor, and Fayol. Fayol explains the management function (1916) and defines it as an activity including planning (analysis, planning, forecasting, decision-making), organizing (material and human resources), commanding (commanding, leading operations), coordinating, and supervising (control, analysis and measures with appropriate sanctions). It is an important part of leadership studies because he discussed principles that leaders have to consider depending on the appropriateness of the situation, rather than simply rules to be followed. This diverges significantly from Weber et al. (1947) who links leadership in public administration to rules and the concept of bureaucracy. The fact that the public sector differs from private is generally known. Already in 1947, Appleby defined public administration as "public leadership of public affairs directly responsible for executive action". In a democracy, it has to do with such leadership and executive action in term that respect and contribute to the dignity, the worth, and the potential of the citizens. As Apaka and Gümüş (2015) define, public administration is the set of law, regulations, and rules, and administrators are shaped and assigned in accordance with these variables. Though administration and leadership in public are regarded as very similar, they reflect different kinds of people and understanding. Though administration and leadership are regarded as being very similar, they actually reflect the different understandings of administration and different human types. Nowadays, especially with the varying understandings of

administrators and leadership, different administration styles have come to existence, and thus, which administration style will be the most utilized has become an important research question.

Leaders must be especially in this condition able to mobilize their employees, even if the results are worse or below average. In interviews they indicated that these situations occur rarely. These are usually problems with the implementation of a specific project, and the correction consists of maximizing job performance. Leaders usually agree that they cannot mobilize all the time. Either the employee “bestirs oneself” or they have to leave the company. Leaders, according to Kazansky (2015), also mobilize in conflicts between employees, if the party which is overplaying needs to encourage to further work.

Villoria and Iglesias (2011) defined that there are five possible definitions of leadership in an Administrative context:

1. Administration leadership is the process of providing the results required by authorized processes in an efficient, effective, and legal manner.
2. Administrative leadership is the process of developing/supporting followers who provide the results (endorsed by those who defend affective leadership such as Newman et al. 2009, among others).
3. Administrative leadership is the process of aligning the organization with its environment, especially the necessary macro-level changes necessary, and realigning the culture as appropriate.
4. The key element of administrative leadership is its service focus or its ethical mission.
5. Administrative leadership is a composite of providing technical performance, internal direction to followers, and external organization direction – all with a public service orientation.

They considered this last definition very close to their own idea, but it is true that it eschews the tough decision about defining the proper emphasis or focus that leaders must make. It is necessary to create a model for defining emphasis considering two kinds of variables: the need of legitimation and the level of institutionalization of the organization where the leader must work. In any case it is necessary to define the differences distinguishing public management characteristics:

- Greater political influence
- Quasi-legislative and quasi-legal capacity
- Greater expectations for equitable and equal treatment and for transparency
- Greater ambiguity and/or contradiction in objectives
- Greater constraints in public manager decision-making, both inwards and outwards
- Greater difficulty in linking incentives to performance
- Slightly different value system related to work
- Lower level of employee satisfaction (Villoria and Iglesias 2011)

7 Conclusions

Choosing a manager only on the basis of his personality characteristics may not always be the most effective method. There is only a weak relationship between personality traits and efficiency. Personal questionnaires can only be used as a supplementary method. If personality questionnaires are used to select a suitable leader for a chosen lead position, always interpret them with regard to the particular position you occupy. Certain characteristics may, for some managerial positions, have little advantage; others have no meaning for others. To be inspired by leaders means to explain and support staff in positive thinking. Employees need to know exactly what to do and how to do it. But the role of a leader is also to inspire them – to refill the petrol that will drive them forward. According to leaders, inspiration is also needed in times of crisis, when people tend to give up and lose the sense of a particular activity and work or projects are negatively attacked by the competition.

Good leaders agree that while inspiring a personal example of leadership is important. Employees must feel that leaders care about them, even in difficult situations they are with them, and they must consider them as models. Employees see how a leader acts and perceive whether the leader is internally excited for a particular thing. If the leader is not excited, they cannot inspire others. A leader is the one who has to deliver enthusiasm, literally “the fuel of the project”. People need to be drawn into the process. If a leader has to become an example for other workers, they have to be in touch with their people and develop an ongoing dialogue on an individual and collective level, while a leader and an employee have to act as equal partners, who speak directly and honestly together. If a leader wants to inspire others, he has to be the bearer of values and goals to which he wants to get people and employees must trust him. Inspiration is based on an individual basis; a leader must know the motivation and past experience of an employee. It is important to talk to people. Otherwise, the inspiration is only superficial.

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Factor Analysis of Economic Leadership Peculiarities of Countries and Regions Around the World



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Abstract The paper examines the impact of various factors on regional economic growth and the development of various countries in the long-term period. During the research, the system approach, the structural-functional method, the formalization method, the method of scientific abstraction, and the methods of stochastic modeling of economic activity, including correlation-regression analysis, were used. The basic factors of economic development of regions and increase of their competitiveness (such as financing of education and investments in research and development) are considered. Correlation-regression analysis of ten factors influencing the index of human development was carried out to identify the reasons for the uneven economic development of the regions. The studied countries were divided into four clusters according to the degree of influence of the investigated parameters. The regression equations for each cluster are constructed, and the features characterizing each cluster are revealed. The results of the analysis of the factors included in the model confirm that the level of the country's competitiveness in a globalizing world is determined not only by the level of development of the economy but also by the competitiveness of the education system. The directions of the development of the system of higher education are proposed in order to strengthen innovative processes at universities and the formation of creative cadres for the country's economy.

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1 Introduction

Investigating the processes of economic development of countries and regions, modern economic science singles out technological structure, global competitiveness, and the level of human potential development as basic concepts.

In accordance with the ideas of an outstanding Russian economist Kondratiev, the basis of crises, wars, social disasters, and revolutions is the change of technological structures and cyclical processes in the world economy (Kondratiev 2015). It is the Kondratiev cycles in the countries' leaders of innovation development that are considered as the basis for industrial, technological, and innovation policy.

From the point of view of the world's leading economists, the cause of the current global financial crisis is a sharp decline in the potential for the development of sectors of the fourth technological order. The researchers believe that the sectors of the sixth technological order include biotechnology, nanotechnology, new medicine, high humanitarian technologies, full-scale virtual reality systems, multimedia networks, global communication systems, space technologies, new nature management, non-waste technologies, unconventional energy resources, and global knowledge bases, including educational and cultural information systems, distance learning, home information systems, and smart homes (Lee 2012; Koudelková and Svobodová 2014; Welfens 2015; Abrham et al. 2015; Kozubikova et al. 2015; Švarc and Dabić 2015; Belas et al. 2015; Selyanskaya 2016; Hostovecký and Poláček 2016).

In the recent researches (Bucci 2015), how population and product market competition (PMC) may interact with each other in affecting the pace of economic growth was analyzed. It was found that a growth model with human capital accumulation à la Lucas (published in the *Journal of Monetary Economics*) and a continuum of degrees of intertemporal altruism can predict an ambiguous link between population and economic growth rates, in line with the available empirical evidence.

Elsadig and Krishnasamy (2011) analyzed the nature and extent of the productivity changes of the ASEAN5 countries, namely, Malaysia, Indonesia, the Philippines, Thailand, and Singapore, over the period 1993–2006. The Malmquist total factor productivity (TFP) data envelopment analysis is following in the three constituent elements of accounting for different sources of productivity growth, which are technological progress, efficiency change, and the effects of economies of scale. Results indicate that when human capital is included in the model, Malaysia and Singapore reported an increase in TFP and growth in productivity. The model without human capital shows that there is a TFP in Indonesia. This suggests that human capital investment plays a role in driving TFP growth in Malaysia (Elsadig and Krishnasamy 2011).

Another interesting aspect is the ambiguous role of universities in the facilitation of the transmission of knowledge to private sector business enterprises, which was investigated by Leyden and Link (2012). They developed a formal model of university-business enterprise in which the outcome is both mutually desirable and

feasible. This model showed that if a university seeks to act as a complement to a private sector collaborative R&D costs, it will be attractive to both incumbent firms and startup entrepreneurs and it needs to structure its program (Leyden and Link 2012).

Sum and Jessop (2013) researched how the knowledge-based economy is being reshuffled and put into a different context in part in terms of “knowledge and higher education clusters,” “knowledge hubs,” etc. and their role in competitiveness. They also analyzed some implications of these economic imaginaries, governmental technologies, and emergent modes of growth for higher education (Sum and Jessop 2013).

Moreover, Gu and Wong (2015) constructed a direct output measure of the education sector for Canada and used the measure to examine its productivity performance. The measurement of education output in the paper was predicated on the notion that the output of the education sector represents investment in human capital (Gu and Wong 2015).

A significant role in the transition of the economy to the new technological structure is played by the level of population’s education, the upgrading of the skills of the labor force, and constant access to new knowledge and technologies (Judson 1998; Swanson 2001; Kharaeva 2009; Slepneva 2013; Chambelin 2015; Finogenova and Nosov 2015; Stukalova et al. 2016; Niño-Amézquita et al. 2017).

Depending on the starting conditions and the current level of development, the factors that determine the competitiveness of the economy have different effects on the economies of the countries of the world.

2 Reasons and Methodology

As a research task, the impact on the level of human development of various factors such as gross domestic product (in % per capita), public spending on education (as % of GDP and as % of total public expenditure), costs on research and development (as % of GDP), and demographic indicators of countries in different regions of the world was chosen.

During the research, the system approach, the structural-functional method, the formalization method, the method of scientific abstraction, and the methods of stochastic modeling of economic activity, including correlation-regression analysis, were used. Three functional indicators were selected for the study:

- f1 – Human Development Index
- f2 – World Prosperity Index
- f3 – World Competitiveness Index

The authors constructed a regression model with the following influence factors:

- x1 – State (public) expenditure on education, % of GDP
- x2 – Expenditure on education as a percentage of total public expenditure, %

- x3 – Internal costs on research and development, % of GDP
- x4 – Population, mln people
- x5 – Urban population as a percentage of total population, %
- x6 – Population density, people/sq. km
- x7 – GDP per capita, USD (2010)
- x8 – Value added in the primary sector of the economy (agriculture), % of GDP
- x9 – Value added in the secondary sector of the economy (manufacturing industry), % of GDP
- x10 – Value added in the tertiary sector of the economy (service sector), % of GDP

Due to the lack of completeness of the data for the study at other time intervals, a 5-year analysis period from 2010 to 2015 was chosen.

The study used statistical data for 20 countries of various regions of the world with different levels of economic development: Australia, Austria, Argentina, Brazil, Britain, Germany, Denmark, Israel, India, Canada, China, Mexico, Norway, Russia, the USA, Finland, France, Switzerland, South Africa, and Japan (The Global Competitiveness Reports [2016](#); World Bank Open Data [2017](#)).

3 Results and Discussion

Initially, a hypothesis was put forward on the equivalence of the indicators “Human Development Index,” “World Prosperity Index,” and “World Competitiveness Index.” During the research, this hypothesis was not confirmed. In this regard, each indicator was studied separately.

Within the framework of constructing a regression model of the dependence of the indicator “Human Development Index” of the groups of countries studied on the above parameters, the authors carried out a correlation analysis. As a result of the analysis, four groups of countries were identified; similar factors are used when constructing regression models. The general results of the correlation analysis of the dependence of GDP dynamics on the chain growth of factors characterizing the level of monetization of the economy are given in the table.

Further in the article here are brief descriptions of clusters that were identified for the research countries. For each cluster, models of the regression equation are defined:

Group I Countries characterized by a negative dependence of the Human Development Index on the volume of public investment in education – Mexico, France, Australia, Canada, Denmark, and Austria:

$$f_1 = 0.0036 * x_1 + 0.038 * x_4 + 0.0035 * x_5 - 0.0127 * x_6 + \varepsilon \quad (1)$$

A positive correlation between the rate of change in the Human Development Index and the dynamics of changes in the population of the country and, to a less extent, with the volume of public expenditure on education as a percentage of GDP has been revealed. According to the obtained model, the population growth per one million people is accompanied by a positive shift of the Human Development Index in the study group of countries by an average of 0.038 points.

Group II Countries with a high index of competitiveness, which describe the high level of other indicators – Norway, the UK, Switzerland, and Finland:

$$f_1 = -0.041 * f_3 + 0.001 * x_2 - 0.042 * x_5 + 0.0205 * x_6 + 0.0299 * x_9 + 0.023 * x_{10} + \varepsilon \quad (2)$$

As in the previous case, a positive effect of changes in population dynamics was found within the framework of the averaged model of the Group II countries. At the same time, according to the constructed regression model, an increase in the urban population by 1% allows to expect a decline in the Human Development Index by an average of 0.042 points, which can be explained by the overabundance of highly skilled urban personnel and the shortage of personnel with working professions.

A characteristic feature of this group is the noticeable positive impact of the change in the volume of industrial production and the service sector.

Group III Countries with a negative correlation of the level of industrialization and the index of human development – Argentina, Israel, Brazil, and China:

$$f_1 = 0.019 * x_2 - 0.0045 * x_4 + 0.2286 * x_5 - 0.105 * x_6 - 0.0612 * x_9 - 0.029 * x_{10} + \varepsilon \quad (3)$$

According to the constructed model, for countries with a negative correlation of the level of industrialization and the Human Development Index, a significant dependence of the dynamics of changes in the HDI on the change in the share of the urban population was revealed. It was proved that an increase in the urban population by 1% could lead to an increase in the Human Development Index by 0.228 points. According to the model built, a decline in the population density by 2.17 person/sq. km can lead to a similar result. That is, an increase in population density per 1 person/sq. km leads to a decrease in the level of the Human Development Index by 0.1 points.

Group IV Countries characterized by the negative impact of demographic factors on the HDI – Japan, Germany, India, the Russian Federation, the USA, and South Africa (Table 1):

$$f_1 = -2.023 + 0.0698 * x_1 - 0.0486 * x_2 - 0.0001 * x_7 + 0.0935 * x_{10} + \varepsilon \quad (4)$$

Also, as in the Group I model, in countries with a negative impact of demographic factors on the HDI, there is an inverse relationship between the volume of public expenditure on education and the change in the index of human development. The

Table 1 Correlation analysis of the dependence of the dynamics of GDP change on the chain growth of factors characterizing the level of economy monetization

Group	Country	HDI	The index of competitiveness of the countries of the world	State expenditure on education, % of GDP	Expenditure on education as a percentage of total state expenses, %	Domestic expenditure on research and development, % of GDP	Population size, mln.	Urban population as a percentage of total population, %	Density of population, people/sq. km	GDP per capita, USD (2010)	Value added in the primary sector of the economy, % of GDP	Value added in the secondary sector of the economy, % of GDP	Value added in the tertiary sector of the economy, % of GDP
		f1	f3	x1	x2	x3	x4	x5	x6	x7	X8	x9	x10
I			Countries characterized by a negative ;										
	Mexico	1.00	0.63	-0.81	-0.10	0.77	0.94	0.94	0.93	0.98	0.83	-0.59	0.56
	France	1.00	-0.66	-0.90	-0.57	-0.09	0.95	0.97	0.97	0.81	-0.48	-0.25	0.46
	Australia	1.00	0.03	-0.73	-0.57	-0.73	0.97	0.97	0.97	0.98	0.55	-0.47	0.45
	Canada	1.00	-0.41	-0.76	-0.28	-0.52	0.90	0.90	0.90	0.96	0.56	0.58	-0.24
	Dania	1.00	-0.26	-0.40	-0.40	-0.20	0.75	0.78	0.75	0.25	0.09	0.51	-0.40
	Austria	1.00	0.54	-0.28	-0.53	0.35	0.85	0.72	0.85	0.75	-0.48	-0.51	0.54
II			Countries with a high competitiveness index characterizing a high level of other indicators										
	Norway	1.00	0.94	0.21	-0.15	-0.88	0.97	0.98	0.99	0.94	0.26	-0.76	0.79
	Great Britain	1.00	0.91	-0.63	-0.53	-0.68	0.81	0.82	0.81	0.71	-0.77	-0.18	0.23
	Switzerland	1.00	0.61	-0.47	-0.71	-0.45	1.00	0.99	1.00	0.92	-0.27	-0.92	0.92
	Finland	1.00	0.71	-0.04	-0.05	-0.68	0.90	0.88	0.90	-0.53	-0.05	-0.95	0.95

Countries with a negative correlation of the level of industrialization and the HDI													
III	Argentina	1.00	-0.88	0.83	-0.06	0.37	0.95	0.91	0.94	0.02	-0.77	-0.94	0.87
	Brazil	1.00	-0.30	0.06	-0.44	0.49	0.98	0.98	0.98	0.44	0.82	-0.94	0.92
	Israel	1.00	0.13	0.14	-0.53	-0.10	0.97	0.98	0.98	0.99	...	...	...
	China	1.00	-0.76	...	...	0.50	0.95	0.96	0.95	0.95	-0.83	-0.86	0.86
IV	Countries characterized by the negative impact of demographic factors on the HDI												
	Russia	1.00	-0.16	0.08	0.16	0.39	-0.49	-0.52	-0.49	-0.75	-0.19	0.70	-0.73
	SAR	1.00	-0.69	-0.63	-0.62	0.43	-0.59	-0.61	-0.59	-0.87	0.75	0.51	-0.60
	Germany	1.00	0.92	-0.47	-0.15	0.24	-0.41	0.87	-0.41	0.92	0.11	0.49	-0.54
	USA	1.00	0.53	-0.75	-0.09	-0.13	0.73	0.73	0.73	0.66	0.51	0.92	-0.01
	Japan	1.00	0.87	-0.18	-0.07	0.50	-1.00	1.00	-1.00	0.96	0.17	-0.30	0.25
	India	1.00	0.41	-0.82	-0.94	-0.37	-0.63	-0.61	-0.63	-0.57	0.53	0.46	-0.50

Source: Own results

constructed model allows to state that an increase in this parameter by 1% of GDP is associated with a decrease in the Human Development Index of the average Group IV country by 0.07 points.

The indicator “GDP per capita” can be included into the unique parameters influencing the change in the Human Development Index of the countries of this group. This parameter has a significant effect on the studied function. According to the model, an increase in GDP per capita of 100 US dollars allows to predict the growth of the Human Development Index by about 0.01 points within a group of countries with a negative impact of demographic factors on the Human Development Index.

4 Conclusions

Innovative development is the main priority of the modern economy of any country in the world. The main element of the development of innovative production is a creative person, and his/her human capital is the main resource of innovative production based on new knowledge production.

Under these conditions, the fundamental type of investment is investment in higher education, which directly affects all components of human capital and contributes to the formation of highly qualified specialists whose work determines the rate of economic growth of the country.

The correlation-regression analysis carried out by the authors made it possible to give a mathematical description of the basic factors characterizing the country's economy and its Human Development Index and, consequently, the global competitiveness of the country's national economy. Four clusters of countries were identified, characterized by different strengths of the correlation of these factors: countries characterized by a negative dependence of the Human Development Index on the volume of public investment in education; countries with a high index of competitiveness, characterizing the high level of other indicators; countries with a negative correlation of the level of industrialization and the Human Development Index; and countries characterized by the negative impact of population characteristics on the Human Development Index.

The level of the country's competitiveness in a globalizing world is determined by both the level of economic development and the competitiveness of the education system. The declared transition to a postindustrial level of technological development as a priority goal of the development of the Russian economy requires serious financial investment in the system of higher education.

The choice of the source of investment in education in the scale of both the economy and person is today a sharply debated problem. Demand for higher education exceeds the state's ability to provide everyone with the opportunity to study in selected areas of training from the state budget. At the same time, it is necessary for the state to regulate the output of specialists with higher education in various areas and training profiles, in order to meet the needs of the economy in the

staff of relevant qualifications. This is especially important in the light of the need to make a breakthrough in the economy and a jump to the newest technological modes.

It is only the state that can create prerequisites for the economy's transition to a new technological way, using financial support as a tool for breakthrough directions in the development of science and education, forming and supporting the demand for educational programs that provide advanced graduate education and ensure the replacement of technological structures, at the expense of the state budget.

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Part III
Leadership in Business and Economics

Methodological Aspects of Studying Leadership Potential in Small and Medium Business Organizations



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Abstract The objective of the work is to analyze the phenomenon of leadership potential in small and medium business companies and to identify its social components. The authors believe the problem is neglected in Russia. As a result, Russia has little experience in the sphere of leadership potential development. It is on the correct understanding of leadership potential components that making the relevant managerial decisions in a company depends to a large extent, which in its turn determines the company's focus, growth rates, stability, and competitiveness. The topic of leadership is becoming increasingly popular in economics, as one of the paramount features of a successful company is the presence of a leader standing at the head of the company. As the research methods, the analysis of secondary research data is used and so is the data of sociological survey conducted by the authors in 2016 as a case study of company N where an important place is occupied by such leadership skills components as intellectual capacities, an ability to set goals, communicative and organizer capacities, an ability to act under risk, and the personal qualities that are essential for certain situations. During the studies, the authors succeeded at finding out the structure of personality of the company's employees having the leadership potential. The results obtained in the work can be used as a basis for working out a system of actions aimed at the development of leadership potential in a company.

1 Introduction

At the end of the twentieth century, Russia experienced a complicated transition of the economy toward the market relations. The process of transformation of the economic system from the planned to the market economy was of revolutionary and not of evolutionary nature in Russia, which had negative consequences for the Russian society (Sushko et al. 2016a). As a result of the reforms, the level of

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requirements has drastically changed for the system of management, the recruitment of managerial personnel, and the style and methods of managing the organizations. For a long time in Russia, the people involved in the production process were not considered either by the economic science or practice as the fundamental element of the economic process. It is only in the recent years that the “human factor” theory and “leadership skills theory” provisions have come to be actually used in practice (Sushko et al. 2016b).

First in the West, and by now in Russia, the scheme “people–finance–equipment” has gained paramount importance for the system of management. Here the first place is won by leadership skills, a high expertise of an individual, dominating motivations, qualification, and mastery. Interestingly enough, it is in ways of changing the attitude toward recruiting the senior executives in the system of production and management that under transition to market relations the Russian economists were pushed to look for reserves for increasing the competitiveness and efficiency of production. However, it has to be borne in mind that one can only be guided by structures that are up to Russia’s actual level of development, i.e., it is impossible to merely borrow the elements of the Western economic models. Efforts should be made to create own managerial structures. In order to withstand the competition, Russian organizations need to continuously develop and introduce the innovation business methods. In today’s world, it is knowledge that becomes the foundation of a company’s competitive advantage. Consequently, the role of man as a carrier of the knowledge increases. Thus, the competition moves on to the personal level – that of the managers’ competition.

Human resources management professionals believe that the key to progress lies not in improving the basic institutions, e.g., financial system, but in further developing certain qualities and skills of executives: the “emotionality,” “tolerance” toward the personnel, team building, working out of a strategy, and so on. There is a revolution in stock for the entire economic system which so far has been founded on the capital and has functioned as a derivative of the latter. In other words, “. . . for the true pyramid of values of an individual and the economic environment surrounding the individual not to contradict each other, it is the free human spirit that is to occupy the place of capital in the new economy” (Krasnova 2007). In particular, one of the aspects of efficient performance of a company is the manager’s combining the functions of a leader and an executive in his activity (Ashirov 2006).

So far, large Russian companies have seldom set themselves such unique in their content tasks as to radically change the strategy or to develop new products. Improving the operations activity and launching new businesses can be listed as changes that enjoy the greatest demand with the Russian business. With regard to this, reliance can be made on the rich experience of many companies and countries, both the developed and the developing ones. Meanwhile, Russian companies keep sharing the same problems: how to achieve the outlined goals and where to recruit people who owing to their knowledge and leadership skills will be able to determine the direction of change and to systematically work for it, for the development of leadership, and for the fulfillment of the tasks set.

As estimated by recruitment professionals, there is currently a lack of mid-ranking specialists, managers, and true leaders. This is exactly why the problem of leadership and ways of revealing the employees' leadership potential is so urgent today. The problem of the lack of leaders among the mid-ranking executives is especially relevant for the Russian economy. Currently, the development of the Russian economy mainly depends on the activity of large corporations, with the small and medium enterprises making a fairly minor contribution to the country's GDP. There are several reasons for it, the economic, political, and social ones. In particular, the economic crises of 1993, 1998, and 2008 can be mentioned that affected the small and medium business considerably. Another reason is exactly the lack of leaders among the mid-ranking managers. Due to this, the executives of small and medium business organizations face quite a number of tasks. First, in order to ensure successful activity of an organization, high-class professionals have to be attracted there who are able not only to perform the leading functions competently but also to combine the leader's and manager's features as appropriate. Second, the company's employees have to be promptly provided with up-to-date information that will allow them to orient to the market and to follow the direction of the company's development. Third, there must be control over spontaneous emergence of leadership in the company and any destructive expressions of leadership have to be eliminated. Fourth, the company's manager faces the problem of retaining the highly qualified employees, as it is not only the market share but also the leaders that the companies fight over.

The authors believe these problems can be solved by using a sensible strategy for developing the employees' leadership potential in the company. The ability to detect leadership potential in personnel will allow training the promising employees as appropriate, which, in its turn, will enable the company to train specialists proceeding from the ins and outs of its own activity, on the one hand, and on the other hand – will serve as an additional incentive for the employees to continue working at this company. Moreover, orienting to the development and training of their own staff creates the talent pool and reduces costs for recruiting the new employees. On top of that, if a company has leaders with various leadership skills, i.e., whose leadership potential differs in quality, this will enable the company to promptly respond to the changed conditions of the environment – as it has already been mentioned, this is extremely important under fierce competition of the today's market.

2 Literature Review

Initially, leadership was associated with political activity, oratory, and state administration. The questions of upbringing the leaders were posed so early as by the sophists. Socrates and Plato paid attention to the social upbringing of virtue in rulers Aristotle (Novgorodtsev 2010: 44–45). Cicero emphasized a special leadership role and moral duties of a ruler (Chicherin 1903). In the works of Plutarch (1959), the idea of a personal example to be set by a political leader was expressed. In the

medieval epoch, the greatest contribution into the development and elaboration of the ideas about political leadership was made by Thomas Aquinas (Chicherin 1903) and N. Machiavelli (2004). The three styles of leadership (the traditional one, the legal and rational one, and the charismatic one) singled out by M. Weber can be considered as the beginning of a scientific as such period of study of leadership (Weber 1990). It was his works that served as a starting point for research of the charismatic leadership by such modern authors as Shamir et al. (1993). The styles of leadership were studied by Kurt Lewin (1947), by the researchers at state universities of Ohio and Michigan, as well as by the scholars at Texas University – Robert Blake and Jane Mouton (1982) – who are considered to be the most far-reaching. Using the materials of observations over 2000 leaders, 150 behavior forms were singled out, and the “leader behavior description questionnaire” was compiled that was offered to employees of various companies to fill in (Daft 2014). The results obtained allowed singling out two variables: “the attention to the relations structure” and “the attention to relations in the structure.” The first variable includes behavior patterns using which a leader organizes and determines the structure of relations in a group, definition of roles, establishment of communication streams, rules and procedures of work, and the expected results. The second variable involves behavior patterns that reflect the level or quality of relations between the leader and his followers (Vikhansky and Naumov 2005). Further research has shown that leaders paying more attention to their relations with subordinates have a greater influence over them as compared to leaders who are oriented to structuring and accomplishment of tasks. However, by contrast, the results of work and productivity of the group are higher in the leaders who are oriented to the structure of relations. Moreover, the subordinates evaluate the leaders who use both behavior lines simultaneously higher than the leaders who are able to follow one line only. In the research of Michigan University, the data of observations and questionnaire survey were used too, but the efficiency of leaders was associated with the productivity of groups headed by them. Finally, two leader behavior types were found, each of which being in their turn associated with two qualities. The leaders who are oriented to the employees first of all support positive interaction and secondly try to keep conflicts to the minimum. The leaders who are oriented to work seek to achieve the goals and optimize the employees’ activity. Unlike the researchers of Ohio University, the scholars from Michigan think the two behavior types singled out by them are opposed to each other. On top of that, the followers of a leader try to imitate him and to copy his behavior style, which brings about higher results of work (Daft 2014). Using the results of researchers from Ohio and Michigan universities, the scholars of Texas University Robert Blake and Jane Mouton developed a bidimensional model that got the name of a leadership grid. They evaluated the activity of leaders with two parameters: attention to people and attention to production. Each parameter was scored 1–9. As a result, five types of management have been subdivided: team management, middle-of-the-road management, produce-or-perish management, country club management, and the impoverished management. The team management is recognized as the most efficient one; however, it is frequently quite hard to apply it in practice. According to the

leader's behavior type, his follower can also be subdivided into the participants of intra-group and extra-group relations (Bass 1990).

The attention to characteristics of situation was drawn by representatives of the situational approach, in particular, by F. Fiedler who started from studying the efficiency of various leadership styles. Fiedler has found that it is the task-oriented leaders who will be efficient in the most favorable and in the most unfavorable conditions, while in the middle of the continuum, the key factor for selecting the best leader will be his focus on relations. Fiedler's first important discovery was the fact that there is no single better or worse leadership style – it is the situation itself that determines the optimum style of leadership. His second essential finding was the opportunity for the group to shift from one point in the continuum to another one as a result of efficient guidance by the leader. For a group that has problems in relations, the best leader will be the relations-oriented one (Oyster 1999). Hersey and Blanchard's theory says a suitable management style has to be selected depending on the situation – one that is oriented to the task or to the personnel. As the variable for the situation, the employee's professional maturity is adopted; in its turn, it is determined by two factors – the job-relevant maturity (i.e., the performance skills associated with fulfillment of the task) and the psychological maturity (being motivated for the activity and confident of oneself). Some scholars, e.g., S. Robbins (2000), highlight the advantage of this concept – the leader's orientation to the personnel – while also pointing out the practical importance of such an approach.

One of the poorly elaborated aspects of the problem of leadership is the content of the notion "leadership potential." The reason behind introduction of this term into scientific literature was the necessity of a more profound sociological and social and psychological knowledge about the nature of leadership. The relevance of using this term and making its content more precise is also confirmed by the fact that some thesis papers of the Russian scholars, e.g., the works by Yakhontova (2004) and Kirsanov (2003), address the question of studying the leadership potential while considering the aspects of philosophical and sociological comprehension of the leadership potential notion. However, in spite of the term being widely used in scientific works and study aids, the question about the components of its structure and methods of studying it remains open. Moreover, the recent time has seen much attention paid to the motives of both leaders' and followers' activity. With regard to this, the revival of interest in psychological theories is possible. As for higher mutual dependence between the leader and his followers, this reminds one of interactionist theories that are likely to be developed in the future. The next possible direction of the development of leadership theory is due to the trends taking place in today's companies. Influenced by globalization and information penetration of the society, the process of communicative relations comes to the forefront. So with information being a modern company's main resource, it is not only the managers who can become leaders but so can any employee possessing the information. As a result, the today's leadership has not only a vertical dimension to it, but it also gets dispersed in horizontal associations. Some researchers believe the root of leadership to now be contained not only in the position but also in the knowledge. If one knows how to

change the company's development direction, one can become a leader (Shcherbinina 2004). With regard to this, the relevance of the communicative approach is evident; it views a company and organizational processes through the lens of communication. Major economic transformations are characterized by risks and uncertainty, complicated and dynamic changes of the world. So in this period, the demand for new and nonstandard solutions is especially high. Such a style of thinking is required from the company executives having the necessary leadership skills in which they do not focus on using the individual learned methods and concepts only but in which they freely deal with a variety of controversial changes involving both a chance and a risk (Sushko 2001).

3 Research Methods

Many researchers of the organizational leadership directly relate the company's economic efficiency and the efficiency of leadership development program implemented for its employees. So, for instance, in 2002–2003, the experts of Hewitt Associates, an American firm specializing on consulting in organizational talents development, conducted the research aimed at studying the dependence between the quality of management and financial indicators. By the quality of management, they meant the company's having enough mid-ranking managers who had leadership skills.

Using the expert questioning and in-depth interview methods, over 620 companies of the USA, Europe, and Asia were studied. As the criterion of company success, the aggregate income growth for the 5-year span was used. As a result, three traits that are inherent in all the leading companies were found out. First, the directors general and members of the board of directors manage the process of upbringing of executives efficiently while not taking part in it. Next, the leading companies are focused on talents, i.e., they attract trainee students and university graduates, they draw over the competitors' employees, and they find out and evaluate their own employees' capacities and promote their development. Third, the leading companies skillfully implement the leader development programs that are suitable for them (Gandossy and Effron 2003).

While studying the problem of leadership, the most popular research methods are the qualitative or "soft" ones. According to the authors, this is due to the complexity of the very phenomenon of leadership and particularities of its manifestation. As the new theories of leadership developed, the researchers singled out yet new constituents of leadership and introduced situation parameters that may differ from case to case. Notably, the initial objective of the empirical research was to enrich the scientific knowledge on the phenomenon of leadership and to identify new components thereof, but not the statistical checking of hypotheses about the extent of pronouncement of this or that aspect of leadership. However, in the modern scientific studies of leadership, quantitative research is used in the complex with the qualitative one. In particular, the authors believe in the future there

will be a trend toward the growth of empirical research using mainly quantitative methods. For example, the researchers belonging to the gender approach to study of leadership actively use statistical data to confirm their hypothesis about the male leaders prevailing part and about the inequality of men and women in exercising the leadership authorities.

In the authors' opinion, it is the personality and group tests that are the most suitable for studying a company employee's leadership potential. Relying on the main provisions of the trait theory of leadership, it can be said that personality tests are up to the main task – they give an idea not about the general picture of the personality but highlight the brightest features. This will allow recruiting leaders with a certain set of traits, skills, and abilities, depending on the situational requirements. Among the most popular personality tests, there are the relationship questionnaire and the level of aspiration questionnaire that are aimed at studying the motives of activity, the popular tests by Eysenck (1992) for evaluating the intellectual development and the emotional sphere, the COS technique (communicative and organizer abilities) – a variant of Wonderlic test as adapted at the chair of psychophysiology of MSU in 1989. Similarly, for evaluating the leader's qualities, tests can be used that are specially designed for determining the level of fitness for managerial work. For this purpose, they use Schubert test that is aimed at studying the propensity to risk, the Prognoz (“forecast”) technique developed by the Russian scientists in 1985, the “goal–means–result” test, and the voluntary self-control questionnaire (VSC) (Travin and Dyatlov 2003).

Importantly, in the recent time, the use of Western testing techniques has gained popularity, with their questionnaires being frequently just translated into Russian without any adaptation to the Russian realia. The second group of testing techniques that are suitable for studying the organizational leadership potential includes the group tests – these are used for studying a group as a whole. In order to obtain data for characterizing a group, the averaged data of the group members, figures of the group norms, and values and structural indicators, among which there are sociometric indices, can be used. According to the authors, the procedure of sociometric questioning seems the most interesting one as it allows expressing the dyadic association between the leader and his followers both graphically and in numerical indices (Yadov 2007). Moreover, using a sociometric test, the data can be obtained not only about group indicators but also about individual indicators of the group members. When organizing a sociometric survey, it is important to ensure the participants' motivation which is essential for that. This requirement is reflected in the relevant motivation rule, according to which the procedure of any test has to coincide with the interests of the tested ones. It is only in this case that the group studied turns into a group of researchers seeking to not only conscientiously fulfill the tester's instructions but also to draw from it some vital lessons for themselves (Sushko 2016). In 1943, Florian Znaniecki was one of the first to point out the importance of sociometric technique: “Sociometry that is considered in the historical and comparative perspectives initiates a crucial stage in the evolution of social thought. . . It opens up a way for an objective scientific analysis of the phenomena that have attracted the attention of social reality thinkers for thousands of years but

that have been more frequently evaluated rather than studied” (Znaniecki 1943: 225). The sociometric test is based on the ideas of Moreno about role theory of personality (Blatner 2000).

4 Results and Discussion

As the object of studying the personality structure, the authors have selected the employees of one of the major construction companies, N, founded in 2000 by a group of specialists having more than 10 years’ experience in heat power generation and automation fields. The selection of the object was conditioned by the following reasons. First of all, the Russian construction market develops at quick pace, with the construction sector growth rate having increased more than two and a half times in the recent years. According to the data of the Russian Federal State Statistics Service, the gross product in the construction branch keeps going up. Second, the growing market may attract the Western investors, which will boost the competition at the market that anyway is already high. Due to this, companies that are involved in construction are interested in a high competitiveness, which in its turn is ensured by the presence of highly qualified specialists having a leadership potential in the personnel. Alongside with this, the structure of a construction company is quite typical. It can be described with Henry Mintzberg diagram: this is the strategic apex, top management; the operating core, the company members doing the main activity; and the middle line, the link between the strategic apex and operating core, the mid-line managers, the support personnel, and the technostructure.

The specific character of a construction company consists in the main scope of work falling on the highly qualified mid-line employees – production and technical department engineers and design engineers. The ultimate result of the company’s work, term of performance, and quality of construction work will depend exactly on how well they control the operating core – electric and gas welders, circuit installers, technicians, and electrical fitters. This is why the management is highly interested in having in the personnel as much employees possessing the leadership potential as possible and in developing them.

In 2016, blanket canvassing of the company’s employees (15 people) belonging to the engineering and technical lineup and directly involved in the production process was conducted. As the research methods, Cattell test techniques, the COS technique (communicative and organizer capacities), and sociometric test for identifying the formal and informal leaders in the company were selected. For the research, the sociometric card previously tested out when studying the leadership in a similar construction company was used.

The following conclusions were made after analyzing the data obtained. In all the respondents, such factors as calmness, maturity, confidence, emotional stability, awareness of the requirements of reality, and recognition of one’s own demerits were registered. A positive value of such factors as self-command, decisiveness, responsibility, readiness to act, conscientiousness, and discipline was also noted. In all the respondents, the developed imagination, diplomacy, and the ability to

understand motives of other people's actions were found. The "negative" value of such factors as relaxation and calmness was registered that may reflect lack of motivation. All the respondents demonstrated a moderate or high propensity to risk, yet the level of development of communicative and organizer capacities turned out to be different in all respondents.

According to the results of the research conducted, the following recommendations have been given to the company's management. Firstly, it is essential to promote closer informal contacts of the employees – this will help improving the psychological atmosphere in the collective and will encourage the employees to share the experience and to jointly resolve any questions arising in the production process. Secondly, action should be taken for the quantity of objects on which the employees could work in pairs or in working groups to be increased. This measure will promote exchange of experience among the employees and contribute to training of the company's younger staff. Moreover, a complex of measures on managing the company employees' leadership potential should be developed, including the annual diagnostics of personal qualities of the employees and a program of employee goal management (this will increase the employees' interest in high performance). It should also involve the employee feedback mechanisms (theme personal interviews with the manager, quarterly reports), actions aimed at personal growth and development of leadership potential of the staff (personal coaching, personal growth workshops, leadership coaching), and ones aimed at improving the employees' professional competence (choosing and adjusting the situations in which the employees can show their leadership skills and ability to work in a crisis situation). On top of that, a reward plan for employees succeeding in the personal and professional growth has to be introduced (quarterly and annual best employee awards in various categories).

5 Conclusion

In most successful companies of the world, by the development of leadership, they understand a consistent activity to which the company's managers dedicate quite a lot of time. This has not become a widespread factor for the Russian business yet, even though the majority of the Russian companies have practically achieved the stage of development at which a poor leadership potential turns into a serious obstacle for further growth and higher efficiency. Russian businessmen have to realize the importance of a broad leadership development in the contemporary interpretation of the notion, to analyze the situation in their organizations from the viewpoint of conditions for cultivating talented and initiating employees, and to conduct the fairly important, so to say, "ideological" reforms. By analyzing such an important factor as the presence of employees having a leadership potential in the company, further efficient development of the company under the social and economic transformations in the country can be forecast. The managers and leaders have to take into account in their work both the possible changes of the situation and the

psychology of their followers: for a Russian manager, it is quite common practice when there are some rules and simultaneously some other rules on how to violate the former. This enhances the capacity for survival in the most unfavorable conditions, so the ability to live without written instructions, to act up to the situation is innovation, or, as they tend to call it today, “creativity.” Thus, it can be supposed that a successful leader acting both under crisis and stability has to possess a number of qualities that are sometimes controversial: emotional stability and openness, impulse and good organizer abilities, responsibility and bravery, propensity to risk, and an ability to understand others and to defend one’s own interests. Hence the employees having a leadership potential is one of the aspects of the company’s economic efficiency. So, for surviving in the competitive struggle, the Russian companies have to employ not only the qualified specialists but also talented managers and leaders, who would bring the company forward.

In conclusion it has to be pointed out that the main objective faced by the Russian companies today is to achieve the efficient development of leadership at all levels of the company, as it has been shown using the case of N. Construction Company. To achieve this objective, companies should work out clear leadership development programs and conduct surveys of the employees’ opinions about their vision of the management system in the companies. The company executives, too, should reconsider their views on the hierarchical structure of management and the overwhelming control; they should try to open broader horizons for the employees to deal with in structural problems of the companies. The problem of leadership gains especial importance also because the Russian companies increasingly have to face foreign competitors both in the Russian and in the foreign markets. Meanwhile, the international companies not only have an edge in the area of functional management – on top of that, they have a years-long experience of comprehending and developing the leadership potential lived through. So the time has come when Russian enterprises wishing to keep and reinforce their competitiveness have to begin consistently working on the development of leadership.

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Remuneration System as a Leading Motivational Mechanism for Russian Regional Dairy Cluster Development



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Abstract At present new financial mechanisms of interaction of wage labourers and employers are formed and improved in Russia in market relations situation. A determinative of productivity of labourers' activity is their financial motivation and stimulation. A determinative of productivity of enterprises activity is remuneration efficiency as a base of labourers' financial motivation and stimulation. Remuneration system as a leading motivational mechanism has been considered in the article. The remuneration is a flexible element of distributive relations, and it is impossible to create an effective motivational mechanism without the establishment of its communication with end results. A number of new indexes of an estimation of remuneration efficiency have been submitted for consideration in the article. These indexes of efficiency of wages fund use are based on such base indexes as wage ratio and yield of wage. The approbation of the proposed indexes has been carried out on the example of Russian regional dairy cluster.

1 Introduction

Remuneration is a major part of payment and work stimulation system. From the position of operation of business it is one of the economic tools of influence on labourers' work efficiency. But from the position of economy of enterprises, remuneration should be effective.

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At the present stage of production relations development in Russian agriculture, the problem of remuneration efficiency is actualized with several interrelated aspects which we will emphasize. Firstly, Russia's agriculture cannot be considered developing successfully because of a number of some objective reasons of natural-climatic genesis and subjective ones relating to management. But in the article we will not touch upon them.

Secondly, internal and external institutional conditions of doing agricultural business permanently change. Agricultural manufacturers have fewer and fewer levers of fast anti-recessionary reaction. A crisis forces businessmen to search for articles of reduction in expenditure, first of all at the expense of wages fund decrease. Thirdly, remuneration in Russia is the basic source of getting money for persons who work.

In agriculture remuneration takes on a special importance. Fourthly, farming industry in Russian regions more and more assumes a cluster character. Enterprises joining clusters develop joint economic policy, including policy concerning wage workers' remuneration and stimulation of labour.

In the course of historic development agricultural enterprises in Russia are situated in rural townships: villages or small towns which population is mainly engaged in agriculture. The monopsony, i.e. a market situation in which there is only one buyer is actually observed on labour market of townships. Enterprises consisting of agro-industrial clusters are usually the only employers that have competitors in the person of numerous independent wage workers having equal labour grade.

The research problem consists in the following. At present Russian agriculture as well as many other economy sectors is at the formation and development stage. One of the forms of territorial association of agricultural enterprises is an industrial cluster of certain agro-industrial specialization. Both the development of separate agricultural enterprises and the economy of territorial cluster and the country on the whole depend on the remuneration efficiency in respect of end result. At the same time, methodological apparatus for remuneration efficiency estimation in terms of features of the regional agricultural cluster functioning has not been developed enough.

The work purpose consists in revealing the features of labour market in Russian regional dairy cluster and estimating remuneration efficiency by means of the author's methodology.

It is necessary to solve a number of the following interrelated problems for the goal achievement:

- (a) To reveal the features of labour market for the regional dairy cluster
- (b) To consider the estimation of stimulation scheme efficiency. It is possible by means of comparison of the financial results of enterprises activity and wages fund
- (c) To develop the system of criteria of efficiency indexes for the estimation of wages fund use and financial results indexes equilibration
- (d) To estimate efficiency of wages fund use in Russian regional dairy cluster

In the research we proceed from some hypotheses:

- A. Formation of the regional dairy cluster led to the monopsony at a labour market.
- B. There is regularity between the wages fund level and financial results of the regional dairy cluster activity.
- C. Wages fund change is an effective mechanism for the increase of efficiency of the regional dairy cluster activity.

2 Literature Review

Remuneration as an economic category is complicated and many-sided. It largely determines population living standards, causes social equilibrium of the society and in the end has an influence on rates and scales of social and economic development of a country.

The remuneration is formed on the intersection of manufacture and distribution relations. It represents an interaction of different subjects of economic relations. It is no coincidence that such questions as character of remuneration, scheme of payment effectiveness and others are constantly discussed in scientific literature.

In order to build a qualitative program for the perfection of payment scheme, it is very important to determine correctly the efficiency of the existing scheme. What does payment effectiveness scheme mean? From the point of view of some American scientists, the effectiveness is a measure of charges for the achievement of objectives (Sachs et al. 1994; Rosefield 2002).

Thereupon, Carl M. Campbell (1993) notes that an employer in market conditions is interested not in labour inputs (labour force) but in its results and remuneration is an estimation of these results. Employers are interested in the process of labour force use but not in human labour ability. Thus, the results of work, that is, work “utility”, have an influence on labour cost.

Provision of enterprises with manpower resources and the efficiency of their use have an influence on the output volume and sales of products (Cappelli and Chauvin 1991; Meer and West 2016).

Ekkehart Schlicht (2016) notes that the estimation of remuneration efficiency should be based on the theoretical evidence of nature of wage labourers and employers mutual relations. In this case the efficiency wage theory can provide a unified explanation for some key labour market pay and employment tendencies.

The economic theory acts on the premise that remuneration increase follows the increase of productivity and economic results of enterprises activity. And on the contrary, as Claudia Goldin and Lawrence F. Katz (2007) note, the theory of remuneration efficiency assumes that remuneration can stimulate higher productivity. But many researchers in their papers show that employers seldom use the theory of remuneration efficiency in practice. Such tendency takes place in all countries where labour market changes because of economic transformations.

Meghan Millea's (2002) papers which consider salary strategy in six industrially developed countries with various labour market institutes confirm it. Meghan Millea

in a paper, written in co-authorship with Scott Fuess, traces some tendencies of rupture of remuneration and economic efficiency ties in Japan (Fuess and Millea 2002). Robert Drago corroborates it investigating incentives, pay and performance of Australian employees (Drago 1991).

Labour market in a monopsony situation is of special interest. As Staiger et al. (2010) note, monopsony in a labour market is a market situation in which there is only one buyer. The only one employer withstands numerous independent wage labourers. But monopsony in such pure state occurs not very often. Employer monopolists are considered to be enterprises of one branch. Alan Manning (2013) notes that monopsony is possible only in case when firms are in collusion with each other concerning wage labourers' remuneration. Liu Shanshan et al. (2016) noted it while investigating youth labour markets. Naidu Suresh et al. (2016) who found evidence of monopsony power in migrant labour markets in the United Arab Emirates noted it as well.

Carl M. Campbell (1989), studying the features of remuneration in various branches of economy of France and Canada, also referred full (or nearly so full) absence of wage labourers' mobility who didn't have real possibility to change an employer, to the basic signs of monopsony.

The problem of the estimation of remuneration efficiency consists in the absence of the possibility of use of one aggregated index. It is connected with the fact that many factors influence economic indexes. And remuneration is only one of them. Sushil B. Wadhvani and Martin Wall (1991) note it in their papers. Dube (2017) studied the long-run impact of minimum wage and suggested his own system of efficiency estimation.

John T. Addison, Blackburn L. McKinley and Cotti D. Chad et al.'s (2015) paper concerning estimation methodology is of interest.

Russia has lived under market economy laws for only 26 years. These are extremely short terms. Russia's labour market, as well as other sectors of economy, changes by leaps and bounds. We wrote about it in our published works (Samarina et al. 2016; Skufina et al. 2015).

The reforming of labour stimulation is the necessary precondition for the way out of state economy from the crisis. The policy of remuneration growth restraint which was adopted in Russia at the end of twentieth century was a constant brake of economic development and the reason for considerable falling of living standards of most population of the country.

Decline in quality standard, labour productivity and intensity of labour can be explained by errors in the definition of tactics and strategy of remuneration of labour and labour stimulation in general. The hope for automatic influence of labour market on the economic problem-solving was not realized. On the contrary, unsystematic reforming of Russian economy stressed the problems in the scheme of payment effectiveness.

3 Research Methodology

The performance evaluation of the payment scheme is put into practice by means of special-purpose indexes. Wage ratio and yield of wage are basic indicators which are practically applied as indexes of the estimation of labour stimulation scheme effectiveness (Schlicht 2016).

One of the basic methods for the estimation of stimulation system effectiveness of can be considered as comparison of financial results of enterprises activity and wages fund (WF). In economics this index is called yield of wage. The second one is wage ratio index, i.e. wage share in production price.

Formulas for calculation of the wage ratio and yield of wage indexes are presented in Table 1.

Obviously, the higher the yield of wage and lower the wage ratio are, the schemes of payment and labour stimulation operate more effectively.

For the estimation of equilibration of wages fund use and achievement of financial results, we suggest using some criteria of efficiency indexes. Gain indexes, net profit indexes and production price which are growth rates of respective indexes will be estimated. Formulas for calculation of efficiency indexes of wages fund use are presented in Table 2.

If the index is positive, the use of wages fund and achievement of financial results is balanced, and if it is negative, the use of wages fund and achievement of financial results is unbalanced.

For the revealing of equilibration of wages fund and financial indexes of enterprises, we suggest using an equilibration matrix, i.e. an area divided into some zones:

- (a) Zone of intensive development
- (b) Zone of principally intensive development
- (c) Zone of extensive development
- (d) Zone of effective cutback in production
- (e) Zone of not effective cutback in production
- (f) Uncontrolled zone from the position of economy efficiency

Table 1 Formulas for wage ratio and yield of wage indexes calculation

Indexes	Formulas
Gain yield of wage	$\frac{\text{gain} \cdot 100}{\text{WF}}$
Net profit yield of wage	$\frac{\text{net profit} \cdot 100}{\text{WF}}$
Wage ratio	$\frac{\text{WF} \cdot 100}{\text{production price}}$

Source: Schlicht (2016)

Table 2 Formulas for calculation of indexes of wages fund use efficiency

Indexes	Formulas
Gain growth index (ΔG) – acceleration of WF index (ΔWF) ratio	$\frac{\Delta G \cdot 100\%}{\Delta WF}$
Acceleration of net profit index (ΔNP) – acceleration of WF index (ΔWF) ratio	$\frac{\Delta NP \cdot 100\%}{\Delta WF}$
Acceleration of WF index (ΔWF) – acceleration of cost of sales index (ΔCS) ratio	$\frac{\Delta WF \cdot 100\%}{\Delta CS}$

Source: the authors

Depending on acceleration of WF index and acceleration of financial result index, values enterprises label is reflected in a certain zone of the equilibration matrix. Tracing the location of enterprises label in the matrix according to the years gives an opportunity to estimate the dynamics of equilibration of wages fund and financial index numbers of enterprises.

The approbation of the proposed methods of the estimation of remuneration efficiency will be spent on the example of the Belgorod region dairy cluster. By regional dairy cluster, we suggest understanding connected plant facilities situated at the local territory which has optimal inter-economic connections for the most effective manufacture, processing and realization of dairy produce. Concerned dairy cluster is a part of an economy of the Belgorod region of the Russian Federation.

We single out three basic groups of enterprises as a part of the regional dairy cluster:

- Stock farm (cattle farming, dairy farming, etc.)
- Industrial enterprises (technological service, dairy manufacture and processing)
- Enterprises which supply consumers with dairy produce (storage, transportation, sales, etc.)

Besides, industrial and social infrastructure, providing general conditions of dairy produce manufacture, and also conditions of people's life activity such as residential and road and transport sectors, communication, material and technical supplies service, warehousing, combiner sector, intangible assets, etc. pertain to separate sphere of the cluster. Enterprises consisting of an infrastructure have no obvious sectoral belonging. Their indexes were not taken into account in the course of analysis of remuneration efficiency.

The research was carried out for 5 years from 2012 to 2016. Although the present time period is not very long, it gives the chance to reveal the tendencies of equilibration of use of wages fund and financial results indexes.

4 Results and Discussion

Dairy farming and corresponding processing manufactures are traditionally developed in the Belgorod region. In recent years, there has been an integration of dairy farming and enterprises. Strong industrial and financial connections have been formed between them. It is possible to state a fact that dairy cluster has been developed in the region. The formation of the regional dairy cluster has actually led to the monopsony in a labour market.

The following conditions emerged in this labour market:

- Enterprises consisting of the regional cluster of one branch and narrow specialization and closely associated with economic relations act as an employer.

- Numerous independent wage workers having equal labour grade act as labour force.
- Enterprises of the cluster are in collusion with each other concerning wage labourers' remuneration.
- Wage labourers are immobile and do not have real possibility to change their scope of activity and an employer.

Above-listed conditions are the basic signs of a monopsony in a labour market.

The estimate of yield of wage and wage ratio indexes of the regional dairy cluster of the Belgorod region of the Russian Federation is presented in Table 3.

Net profit yield of wage in 2012–2016 is by a factor of a hundred less than gain yield of wage. The analysis shows that in the regional dairy cluster of the Belgorod region of the Russian Federation in 2012–2016, net profit yield of wage was low. It means that enterprises spend wages fund effectively. At the same time, gain yield of wage was high enough in 2012–2015. And in 2016 the index was low. Net profit yield of wage in 2012–2015 was more by a factor of a hundred less than gain yield of wage. And in 2016 the index was high. Thus, it can be noted the indexes' instability.

Calculation of indexes of wages fund efficiency use is presented in Table 4.

The analysis shows the instability of the situation. The ratios affirm that in 2012–2015 wages fund use was balanced with a gain and the cost price but debalanced with net profit. And on the contrary in 2015–2016 wages fund use was debalanced with a gain and the cost price but balanced with net profit.

The matrix of equation of a wages fund and financial indicators of enterprises of the regional dairy cluster of the Belgorod region of the Russian Federation is presented in Figs. 1 and 2. The parity of gain growth index and acceleration of WF index in the regional dairy cluster of the Belgorod region of the Russian Federation in 2015–2016 is represented at Fig. 1.

The analysis shows that in 2012–2015 enterprises were on joint of such areas as “zone of extensive development” and “zone of principally extensive development”. It testifies to the wages fund effective use. But in 2016 the situation went down, and enterprises got in “uncontrolled zone from the position of economy efficiency”.

Table 3 Calculation of yield of wage and wage ratio indexes of the regional dairy cluster of the Belgorod region of the Russian Federation in 2012–2016

Indexes	2012	2013	2014	2015	2016
Annual WF in consideration of assessments, million rbl.	8348.9	8513.5	8920.6	10.116	11.735
Gain, million rbl.	205697	213478	215441	245609	200390
Net profit, million rbl.	1895	2016	1990	740	8080
Cost of sales, million rbl.	201754	201789	212490	244210	191830
Gain yield of wage, %	2463.76	2507.54	2415.10	2427.97	1707.59
Net profit yield of wage, %	22.70	23.68	22.31	7.32	68.85
Wage ratio, %	4.14	4.22	4.20	4.14	6.12

Source: the authors based on the Russia's Federal State Statistics Service Data (2015)

Table 4 Calculation of indexes of wages fund efficiency use in the regional dairy cluster of the Belgorod region of the Russian Federation

Indexes	2012–2013	2013–2014	2014–2015	2015–2016
Acceleration of WF index, %	1.97	4.78	13.40	16.01
Gain growth index, %	3.78	0.92	14.00	–18.41
Acceleration of net profit index, %	6.39	–1.29	–12.56	19.54
Acceleration of cost of sales index, %	5.23	5.30	14.93	–21.45
Gain growth index – acceleration of WF index ($\Delta G/\Delta WF$) ratio, %	191.92	19.23	104.51	–115.00
Acceleration of net profit index – acceleration of WF index ($\Delta NP/\Delta WF$) ratio, %	323.95	–26.97	–93.76	122.06
Acceleration of WF index – acceleration of cost of sales index ($\Delta WF/\Delta c$) ratio, %	37.66	90.17	89.76	–74.64

Source: the authors based on the Russia’s Federal State Statistics Service Data (2015)

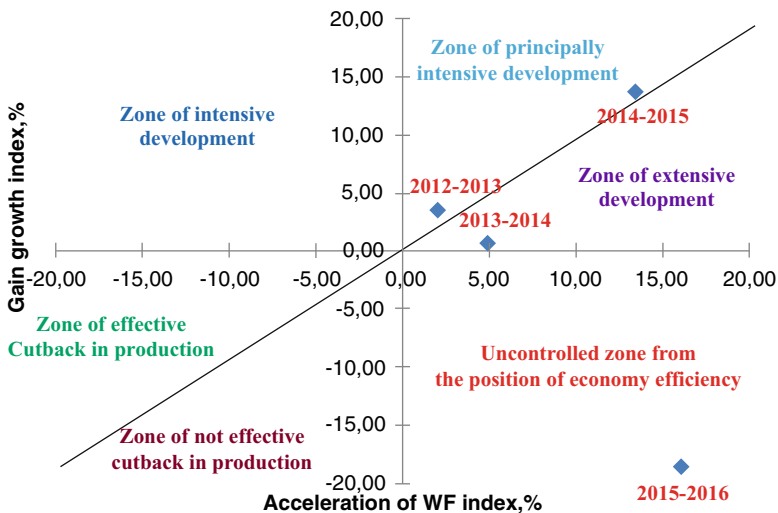


Fig. 1 Parity of gain growth index and acceleration of WF index in the regional dairy cluster of the Belgorod region of the Russian Federation in 2012–2016 (Source: the authors)

The parity of acceleration of net profit index and acceleration of WF index in the regional dairy cluster of the Belgorod region of the Russian Federation in 2012–2016 is represented at Fig. 2.

The analysis shows that in 2015 enterprises were in “uncontrolled zone from the position of economy efficiency”. And in 2016 the situation sharply improved, and the enterprises got in “zone of principally extensive development”. It testifies to the improvement of efficiency of wages fund use.

On the whole, the carried-out analysis testifies to the fact that financial results of the regional dairy cluster of the Belgorod region of the Russian Federation activity

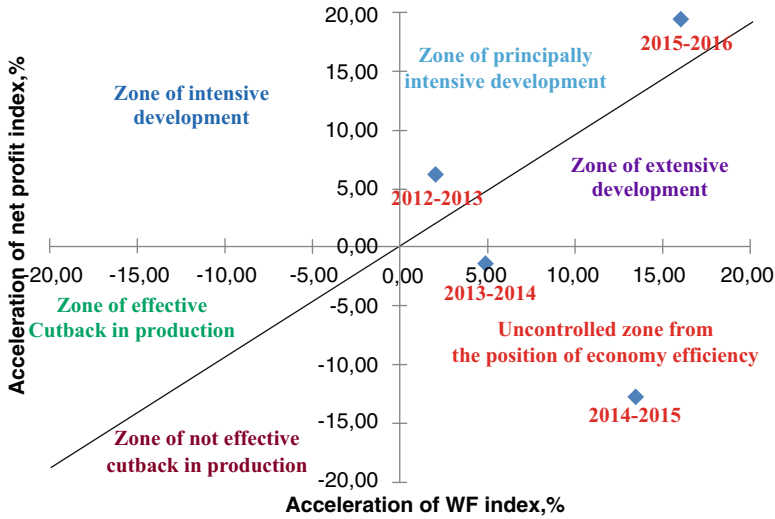


Fig. 2 Parity of acceleration of net profit index and acceleration of WF index in the regional dairy cluster of the Belgorod region of the Russian Federation in 2012–2016 (Source: the authors)

are linked little to wages fund changes. Such out-of-balance indexes reduce the stability of the enterprises and do not allow making forecasts of its development.

5 Conclusion

According to statistical data, in the Russian Federation, the level of a wage ratio is high enough: in 2015 it made up 38, 9%, i.e. it was 15% up for 20 years (Russia’s Federal State Statistics Service Data. URL: http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/accounts/#). Such high level of wage ratio allows concluding that the effectiveness of the system of payment and work stimulation in Russia is insufficient. As for other economically developed countries, the level of a wage ratio is lower: in Belgium (38.28%), in Norway (37.48%), in Italy (30.89%) and in Spain (37.68%) (Millea 2002). It is connected with the fact that in recent years the increase of wages in Russia has not been supported by the rise in labour productivity.

The regional dairy cluster of the Belgorod region of the Russian Federation against the general background demonstrates very good indexes. Wage ratio in 2012–2015 was 5% less. In 2016 it rose a little but remains still low.

On the whole, the carried-out analysis testifies the fact that financial results of the activity of regional dairy cluster of the Belgorod region of the Russian Federation are a little linked to the wages fund changes.

The ratios affirm that in 2012–2015 wages fund use was balanced with a gain and cost price but debalanced with net profit. And on the contrary in 2015–2016 wages fund use was debalanced with a gain and cost price but balanced with net profit.

Such out-of-balance indexes reduce the stability of regional dairy cluster and do not allow making forecasts of its development.

Thus, the stated hypothesis that there is regularity between wages fund and financial results rates for regional dairy cluster of the Belgorod region of the Russian Federation has not been corroborated.

Current situation in regional dairy cluster of the Belgorod region of the Russian Federation can be explained with a monopsony in the labour market. Monopsony is caused by some features of the labour market. Thus, the hypothesis that the formation regional dairy cluster led to the monopsony in the labour market has been corroborated.

But in a monopsony situation, wages fund change is not related to economic results. An employer proceeds only from his own benefits. Thus, the hypothesis that wages fund change is an effective mechanism of efficiency increase of regional dairy cluster activity has not been corroborated as well.

Summing up the results of the research, we have come to the following conclusions:

1. The formation of the regional dairy cluster of the Belgorod region of the Russian Federation led to the monopsony in the labour market; the monopsony is characterized by a number of conditions: enterprises of one branch and narrow specialization, closely associated with economic relations act as an employer; numerous independent wage workers having equal labour grade act as labour force; enterprises are in collusion with each other concerning wage labourers' remuneration; wage labourers are immobile and do not have real possibility to change their scope of activity and an employer.
2. There is a regularity between the wages fund level and financial results for the regional dairy cluster of the Belgorod region of the Russian Federation; it has been confirmed by the comparison of financial results of enterprises activity and wages fund using the author's system of criteria of efficiency indexes.
3. In a monopsony situation, wages fund change is not an effective mechanism of the increase of efficiency of the regional dairy cluster activity; at this conjuncture there is no expecting change of the situation concerning efficient remuneration control in the regional dairy cluster of the Belgorod region of the Russian Federation in the near future.

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Leadership in Providing Personal Life Insurance Services as a Way to Increase the Sustainability of the Insurance Company's Business



Irina V. Sukhorukova and Natalya A. Chistyakova

Abstract The particularities of building the models for actuarial services in Russia have been considered for the purposes of optimizing the business of insurance companies, with evaluation and forecast of numerous statistical factors against regional differentiation taken into account. In order to economically justify the insurance company's creation of a reserve fund for each personal life insurance contract, in the paper, an economic and mathematical model of calculation of the insurance contract cost is suggested that implies payment of insurance to a surviving spouse in the case of the other's death before the spouse's retirement age. The expression for the lump-sum net rate for such contracts has been obtained that depends on the interest rate, age of spouses, their remaining time to retirement, mortality rates, and maximum permissible ages. The calculations performed allow determining the rate of reduced redemption insurance sums, which enables insurance companies to adjust the insurance installments as soon as terms and conditions of life insurance contracts are amended. The suggested technique of calculation of insurance rates ensures the sustainable development of the insurance company in the market of insurance services, enhances its competitiveness, and provides for its achieving the leading positions in the segment of individual contracts of personal insurance. In the work, the actuarial insurance rate calculation technique is applied, using the methods of the theory of probabilities and mathematical statistics, as well as simulation modeling methods.

1 Introduction

Currently, the social and economic policy of the Government of the Russian Federation is aimed at accelerating the development of the personal voluntary and retirement insurance of citizens. With regard to this, there arises the problem of a correct calculation of the insurance rates that enable an insurance company to form

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the relevant reserves of the insurance liabilities. The insurance companies need a mathematically grounded cost of the equivalent payment for the case of an insured event occurring.

Voluntary personal life insurance and retirement insurance are an integral part of life in all the developed countries. This is associated with a highly developed culture of insurance in the countries and the people realizing its necessity. In Russia, there has not been much demand for this kind of insurance so far, with the market of such insurance products being still in the formation stage. Given the demographic and economic situation (the introduction of sanction and anti-sanction mechanism), numerous problems arise that touch on the majority of the population of the Russian Federation. Pension support of citizens is especially problem-haunted. Longer life expectancy and reorientation of values (in particular, having children at a later age due to women's opting for building the career) result in higher load on the employable working population. So for further economic development of Russia, new tools of ensuring the decent life conditions have to be made popular. Voluntary personal life insurance and retirement insurance promote solving the said "pension problem," which in turn helps reducing the load on the state, enhances the level of conscience of the population, and helps ensure a decent level of life after retirement. The object of the research is the Russian market of long-term life insurance in the section of the individual personal insurance.

2 Literature Review

The role of mathematical evaluation methods in various branches of the economy has been increasing from year to year. So, some authors focus their research on the mathematical background of the theory of life insurance and pension schemes (Barrows and Tsyganov 2016), on using the environmental audit procedure in the system of environmental insurance of agricultural enterprises in the polluted areas (Sukhorukova and Shved 2014) and methodological framework of housing insurance against environmental and technology-related risks (Sukhorukova and Serdyukov 2015), on economic optimization model for the case of centralized procurement management in subsidiaries of a state corporation (Sukhorukova and Likhachev 2016), and on the level of the information and communication technology development and accessibility for the public (Minashkin 2014). Currently, actuarial calculations are a part of the mathematical theory of insurance, and they are used not only for evaluating the rates but also for justifying the company's insurance reserves, franchise amounts, and liability limits and evaluating the financial stability of the insurance portfolio and address and some other problems (Gantenbein and Mata 2008; Boyle et al. 1998; Olivieri and Pitacco 2011; Portal "Actuaries: problems, information, events" 2017). The insurance operations feature the principle of equivalence that is expressed in the equality of financial liabilities of the assurator and the insured (Kaas et al. 2001). Using the actuarial calculations, the

share of participation of each assurator in creation of the insurance fund is determined as well as the amount of tariff rates.

In order to determine the sufficient level of the insurance fund, the assurator has to have the information about how many objects will or will not suffer from the insured event (Zolotarev 2016). Based on the statistical data, the amounts of the expected payments can be calculated. For instance, having the information about the mortality of population, one can calculate the probability of survival and death for people of various ages. Proceeding from these data, mortality tables are drawn up that show any change in the dynamics of the number of people in certain age categories. Using the population mortality tables, the net rates for personal life and retirement insurance are calculated for certain age categories of people. Taking into account the long-term nature of these investments, the tariff rates are initially reduced by the size of income obtained as loan interest on the assurator's funds that are used as credit resources.

The actuarial calculations are also used for economic justification of the insurance company creating a reserve fund for each personal life insurance contract. Moreover, actuarial calculations allow determining the amount of paid off reduced insurance sums, which allows recalculating the insurance premiums when terms and conditions of life insurance contracts are amended.

Actuarial calculations are based on studying the financial schemes with the stochastic nature of the insured events considered. The need of actuarial calculations is due to the equivalent payment calculated by the precise mathematical methods in the case of the insured event occurrence. In actuarial calculations, the relevant probabilities and statistical models are created that are used in certain calculations for insurance contracts. Alongside with the event-related constituent, an actuarial contract is a financial tool where the input cash funds are invested for obtaining the income.

In Russia, building of models for actuarial support is quite a difficult problem. Vast statistical data are required, such as the level and structure of wages and salaries; demographic parameters (the working people number, that of pensioners of various groups), preferably with the regional differentiation taken into account; the future return on investments; and so on. However, in evaluating the parameters, the main problem is the lack of the existing statistical and forecast base.

The official Russian publications on statistics currently have no such data with the regional structure considered. The ways for solving the problem have been detailed by the authors in their work (Chistyakova and Sukhorukova 2017; Sukhorukova and Chistyakova 2017).

3 Results and Discussion

Personal life insurance is one of the main ways for long-term savings, so it occupies one of the leading places in the market of insurance services. In most European countries, the insurance companies rendering the services of life insurance are

exempt from other insurance service types at the legislative level, in order to enhance the sustainability and efficiency of their business.

In Russia, retirement insurance has its specific features (Burak 2015; Falin 1996). They are first of all associated with the age at which one will receive the guaranteed insurance payments. In the Russian Federation, the retirement age is fixed, and as of now it is 60 years for men and 55 years for women for all retirement insurance contracts. However, it should be emphasized that a net rate under the insurance contract will be markedly lower for a man than for a woman of the same age. The insurance rate will be different because on average men live 7 years after retirement and women live 20 years. Another important particularity of Russia's retirement insurance is the differentiated distribution of mortality for each separate subject of the Russian Federation. The calculated insurance tariff rates for two men of the same age category but residing in different regions of Russia will be different. This is associated with the fact that for each RF subject, its own mortality tables are drawn up that reflect the mortality features in this particular region. However, in spite of this quite a significant circumstance, almost all insurance companies mainly use the mortality rates for Russia in general when calculating the tariff rates for retirement insurance. So the insureds coming from other subjects of the RF get initially incorrectly calculated rates, due to which the principle of equivalent liabilities of the parties is not observed. The insurer shortly receives the insurance premium, which results in a higher probability of ruin for the company, or the insured pays an excessive price for the certificate, due to which financial losses are incurred by the insured.

Another important aspect of the retirement insurance problem is to identify the required technical interest rate which is used in calculating the commutation functions. In Russia, the leading insurance companies resolve this problem in one of the two ways:

1. They use the refinancing rate of the Central Bank of the Russian Federation as the technical interest rate.
2. They adopt the rate applied by Russia's Pension Fund as the minimum rate of accumulation of citizens' retirement savings in the Russian Federation as the technical interest rate.

In the Russian Federation, the activity of actuaries is governed by Federal Law of November 2, 2013 No. 293-FL "On the actuarial activity in the Russian Federation," by the international treaties ratified by the Russian Federation, as well as other federal laws and regulations of the Russian Federation pertaining to it.

The principles of calculation of the tariff rates for risk-loaded types of insurance that are recommended by the Federal Supervision Service for Insurance Activity of the Russian Federation are based on the economic and mathematical models developed by the authors.

In the work, the task of voluntary personal life insurance is considered, implying that both spouses are insured yet only one of them is the beneficiary. Namely, if one of the spouses fails to live up to retirement, the surviving spouse is paid the insurance support specified in the contract (it is conventionally equal to one). If both spouses

live up to their retirement, the insurance company does not pay them anything. Thus, this is a life insurance contract but one having a more intricate structure. In the work by Chistyakova and Sukhorukova (2017), within the given conditions, probabilities were found for the events of the insurance benefit to be paid and for the certain spouse to receive it. In this work, the cost of the contract will be found, i.e., the mathematical expectation of the assurator's expenses taken as of the point of signing of the contract. It is adopted that throughout the term of the contract, interests are accrued on the insurant's funds lodged as the payment for the contract, according to the complex interest rate of $i\%$ per annum.

The following necessary designations will be introduced for solving the set task. Let the point of the insurance contract being signed be considered as zero. Let the vector of ages (x, y) of the wife and the husband, respectively, as of the contract making point be considered and the time intervals until their retirement be designated as (T_1, T_2) accordingly. As life expectancy is an event value, alongside with the determined characteristics introduced, the event values of $\tau_1(x)$ and $\tau_2(y)$ are going to be considered – the remaining time of life of the wife aged x and of the husband aged y , respectively. Let it also be supposed that the following are given as initial data: vectors (x, y) , (T_1, T_2) , maximum possible age values (ω_1, ω_2) of the wife and the husband, accordingly, as well as the mortality rates of the wife μ_x and the husband $\tilde{\mu}_y$ that depend on their current age $x \in (0, \omega_1)$, $y \in (0, \omega_2)$.

It should be reminded that in the personal insurance theory, the mortality rate is called the function of $\mu_x = \lim_{\Delta t \rightarrow 0+} \frac{1}{\Delta t} P(\tau(x) < \Delta t | \tau(x) > 0)$, $0 < x < \omega$, where $\tau(x)$ is the remaining lifetime of a person aged x . Next, the conditional distribution density of a person's remaining lifetime, if the person has achieved the age of x ,

has the appearance of $f_{\tau(x)}(t) = {}_t p_x \cdot \mu_{x+t}$, $0 < t < \omega - x$, where ${}_t p_x = e^{-\int_0^t \mu_{x+u} du}$ is the probability to live up to the age of $x + t$ for a person aged x [12].

Let the probabilities of the wife and the husband living up to the age of $x + t$ and $y + t$, respectively, be designated as ${}_t p_x$, ${}_t \tilde{p}_y$ and their remaining lifetimes be considered as independent. Then, the joint density function of the vector of remaining lifetimes $(\tau_1(x), \tau_2(y))$ has the appearance of $f_{(\tau_1(x), \tau_2(y))}(t, s) = {}_t p_x \cdot \mu_{x+t} \cdot {}_s \tilde{p}_y \cdot \tilde{\mu}_{y+s}$, $0 < t < \omega_1 - x$, $0 < s < \omega_2 - y$ (Katsnelson et al. 1995; Zhmurko et al. 1997). So, for the insured event to take place, it is necessary and sufficient that one of two disjoint events occur: either the wife died before retirement and the husband has survived, i.e., $\{\tau_1(x) < T_1 \cap \tau_2(y) > \tau_1(x)\}$, or the husband died before retirement and the wife has survived, that is, $\{\tau_2(y) < T_2 \cap \tau_1(x) > \tau_2(y)\}$. In the first case, payment is due at the point of $\tau_1(x)$, in the second – at the point of $\tau_2(y)$. If the present value factor is designated by $\nu = \frac{1}{1+i}$, it is obtained that the up-to-date cost A of such a contract with the conventional value of payment equaling one is an event value that can be expressed as follows:

$$A = A(\tau_1(x), \tau_2(y)) = \begin{cases} \nu^{\tau_1(x)} & \text{under } \{\tau_1(x) < T_1 \cap \tau_2(y) > \tau_1(x)\} \\ \nu^{\tau_2(y)} & \text{under } \{\tau_2(y) < T_2 \cap \tau_1(x) > \tau_2(y)\} \\ 0 & \text{in all other cases} \end{cases}$$

Then, according to the principle of equivalence of liabilities of the assurator and the insurant, the lump-sum net rate for such a contract equals mathematical expectation A . This is how it is obtained.

$$\begin{aligned} MA &= \iint_{R^2} A(t, s) f_{(\tau_1(x), \tau_2(y))}(t, s) \\ &= \int_0^{T_1} \nu^t \cdot {}_t p_x \cdot \mu_{x+t} dt \int_t^{\omega_2 - y} s \tilde{p}_y \cdot \tilde{\mu}_{y+s} ds + \int_0^{T_2} \nu^s \cdot s \tilde{p}_y \cdot \tilde{\mu}_{y+s} ds \int_s^{\omega_1 - x} {}_s p_x \\ &\quad \cdot \mu_{x+s} ds \end{aligned} \quad (1)$$

Now, for consistency, an example is going to be viewed with the following initial data. Let the vector of ages of the wife and the husband, respectively, as of the contract making point be $(x, y) = (52, 56)$ and the maximum possible values of the wife's and the husband's respective ages be $(\omega_1, \omega_2) = (90, 85)$. Therefore, under the retirement legislation of Russia, the time intervals up to their retirement are $(T_1, T_2) = (3, 4)$, accordingly. Alongside with this, in order to illustrate the calculations in a simple way, the de Moivre mortality model [2] is going to be considered below, according to which

$$\begin{aligned} \mu_x &= \frac{1}{90 - x}, x \in (0, 90), \quad \tilde{\mu}_y = \frac{1}{85 - y}, y \in (0, 85). \quad \text{Then [1]} \\ {}_t p_x &= e^{-\int_0^t \mu_{x+u} du} = e^{-\int_0^t \frac{1}{90-x-u} du} = \frac{90 - x - t}{90 - x}, \quad 0 < t < 90 - x, \\ f_{\tau_1(x)}(t) &= {}_t p_x \cdot \mu_{x+t} = \frac{1}{90 - x}, \quad 0 < t < 90 - x, \end{aligned}$$

i.e., the distribution density of the wife's remaining time to live has a uniform distribution within $(0, 90 - x)$. Similarly,

$$\begin{aligned} s \tilde{p}_y &= \frac{85 - y - s}{85 - y}, \quad 0 < s < 85 - y, \quad f_{\tau_2(x)}(s) = s \tilde{p}_y \cdot \tilde{\mu}_{y+s} \\ &= \frac{1}{85 - y}, \quad 0 < s < 85 - y. \end{aligned}$$

Now, the following is obtained from (1):

$$\begin{aligned}
 MA &= \int_0^3 \nu^t \frac{1}{38} dt \int_t^{29} \frac{1}{29} ds + \int_0^4 \nu^s \cdot \frac{1}{29} ds \int_s^{38} \frac{1}{38} \\
 dt &= \left[\frac{1}{38 \cdot 29} \int_0^3 \nu^t (29 - t) dt + \frac{1}{38 \cdot 29} \int_0^4 \nu^s \cdot (38 - s) ds \right]
 \end{aligned}$$

As the two obtained integrals are of the same time, the first one of them is taken.

$$\begin{aligned}
 \int_0^3 \nu^t \frac{1}{38} dt \int_t^{29} \frac{1}{29} ds &= \frac{1}{38 \cdot 29} \int_0^3 \nu^t (29 - t) \\
 dt &= \frac{1}{38 \cdot 29} \left(29 \frac{\nu^t}{\ln \nu} \Big|_0^3 - t \frac{\nu^t}{\ln \nu} \Big|_0^3 + \int_0^3 \frac{\nu^t}{\ln \nu} dt \right) \\
 &= \frac{1}{38 \cdot 29} \left(29 \frac{\nu^3 - 1}{\ln \nu} - \frac{3\nu^3}{\ln \nu} + \frac{\nu^3 - 1}{\ln^2 \nu} \right)
 \end{aligned}$$

Then

$$MA = \frac{1}{38 \cdot 29} \left(29 \frac{\nu^3 - 1}{\ln \nu} - \frac{3\nu^3}{\ln \nu} + \frac{\nu^3 - 1}{\ln^2 \nu} \right) + \frac{1}{38 \cdot 29} \left(38 \frac{\nu^4 - 1}{\ln \nu} - \frac{4\nu^4}{\ln \nu} + \frac{\nu^4 - 1}{\ln^2 \nu} \right)$$

The lump-sum net rate values for the relevant annual interest rate values are given below.

It should be remembered that under insurance support amounting to units, the lump-sum net premium is calculated by multiplying by the net rate.

Other analytical models of survival can also be viewed. For some of them, the possibility of integration by analytical methods will remain, while others will require numerical methods, yet this is not a difficulty in principle. If the above functions are replaced with their interpolation and statistical evaluations, numerical integration methods have to be used too.

4 Conclusion

The analytical expression of the rate of insurance payment for the surviving spouse in the case of the other’s death before retirement age has been obtained; it depends on the interest rate, age of partners, their remaining time to retirement, mortality rate, and maximum permissible ages (The Human Mortality Database 2010).

Table 1 Table of contractual net rates

Interest rate	Present value factor	Contractual net rate
i	v	MA
0.03	0.970874	0.195075
0.04	0.961538	0.191816
0.05	0.952381	0.188661
0.06	0.943396	0.185607
0.07	0.934579	0.182649
0.08	0.925926	0.179783
0.09	0.917431	0.177005
0.1	0.909091	0.174312

Source: the authors

The calculation allows economically justifying the creation of a reserve fund with an insurance company on each personal life insurance contract as well as determining the rate of reduced redemption sums.

The said circumstance enables insurance companies to adjust the insurance installments as soon as terms and conditions of life insurance contracts are amended.

The economic and mathematical model of actuarial calculation of insurance rates worked out allows ensuring the sustainable development of the insurance company business and helps achieve leadership positions in the market of voluntary personal insurance services. After analyzing the results of the self-assessment survey (Table 1), the authors concluded how well the teacher graduates acquired both hard and soft skills that will enable them to become educational leaders and which they are called upon to form in schoolchildren.

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Sustainability of Insurance Business and Leadership in the Market of Insurance Services



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Abstract Our paper considers the peculiarities of personal voluntary pension insurance in the Russian Federation taking into account the regional specifics of its subjects. To assess the adequacy of the obligations of the insurance company, we construct an economic-mathematical model of personal joint insurance of several participants in the conditions of the national insurance system. Actuarial calculations are based on the study of financial schemes, taking into account the stochastic nature of insured events. Apart from the accidental component, the actuarial contract is a financial instrument where the invested money is invested to generate income. This study examines the duration of the contract for lifelong maintenance of partners (spouses) on the conditions of inheritance of their property. Inheritance rights arise at the time of the death of the second partner (spouse). The average lifetime of the contract of lifelong maintenance, concluded with partners (spouses) and allowing optimizing the conduct of insurance business, is calculated. The analytical expression is obtained for the mathematical expectation and variance of the validity of the contract. When performing the calculation, the actuarial method of computing insurance tariffs is used alongside the methods of probability theory, mathematical statistics, and simulation modeling.

1 Introduction

At the present stage of development of the Russian society, Russia's pension system is undergoing significant changes. This is explained by demographic reasons – stagnation or decline in the birth rate and an increase in life expectancy significantly increase the social burden on the working population, in the light of which the state cannot cope with the pension obligations entrusted to it and was forced to begin the reform of the country's pension system that has taken place since 2002. Its main task is to stimulate the population to independently form and to some extent manage the

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accumulative part of their pension savings. In view of this reform, it is planned to create, in addition to the existing Pension Fund of the Russian Federation (RPF), non-state nonprofit associations – non-state pension funds (NPFs). They are called, due to the effective management of pension savings, to provide a greater level of profitability. Thus, the FIU has a stable level of profitability of 6%. Non-state pension funds provide a higher profitability – the most successful APFs on average from 7.5% to 16% per year.

However, to ensure the reliability of pension savings, it is legally enshrined that the APF cannot take under its management of pension savings an amount equal to or greater than the value of its assets, with which it confirms safety and is responsible for the pension savings of citizens. In the case of ineffective (less than 6%) or unprofitable management of savings, the state obliges non-state pension funds to keep the minimum rate of increase – 6% – at the expense of its assets.

The APF quarterly gives a report on the amount (including accumulated interest) of the pension savings of each participant of the fund to control the accumulation of citizens. This amount is retained in the FIU's supervisory authority, and thus savings cannot be reduced or increased by less than 6%.

Along with the types of mandatory pension insurance considered in the Russian pension system, voluntary pension insurance takes a special place. Here, the system of state co-financing of pensions and services of insurance companies on pension insurance should be noted.

State co-financing of pensions is a tool that is designed to help the population in their personal participation in the formation of their future pension through voluntary contributions to their pension account. The essence of the program is that when an individual contributes from 1000 rubles up to 12,000 rubles per year to his pension account, the state accrues an equal amount to his account. A citizen can contribute a large amount; however, the limit of state participation is 12,000 rubles.

The most effective way to stimulate the population to participate in the formation of their pensions is to enter into pension insurance contracts with insurance companies. This will allow them to receive a pension from two different, unrelated sources. Also this type of voluntary insurance is the most effective. The reason for this is the principle of equivalence of obligations of insurance participants. It is designed to equalize the responsibility of the insurer and the policyholder when concluding the insurance contract.

Its basis is the probabilistic nature of the relations of the parties, which allows, when investing the same amount of contributions at the rate of the insurer, to receive a more favorable amount of pension payments. At its core, pension insurance in an insurance company refers to life insurance for survival until a certain period – in this case to the retirement age – and in the future rent payments of pension payments to the insured.

Actuarial calculations are designed to determine the fair value of the services of the insurance company (Kaas et al. 2001). Actuarial calculations in pension insurance have their own characteristics (Boykov 2009). First of all, this is the age at which a person will receive insurance payments. This age is stable for all pension insurance contracts and is 60 years for men in Russia and 55 years for women. It

should be noted that the insurance rate for a man will be significantly lower than for a woman of the same age. This is due to the fact that men on average after retirement live 7 years and women 20 years. One of the features of pension insurance is the unique distribution of mortality for each individual subject of the Russian Federation (The Human Mortality database 2010). So, the rates for two men of the same age, but living in different regions, will differ. This is explained by the fact that each region has its own mortality tables reflecting the specific features of mortality in this subject of the Russian Federation. However, some insurance companies, whose head centers are located in Moscow, use the best-known mortality tables for Russia as a whole to calculate pension insurance rates. As a consequence, deliberately false tariffs are calculated for policyholders from other regions, and therefore the principle of equivalence of the obligations of the parties is violated: the policyholder either pays an inflated price for the policy, which causes him to suffer, or the insurer receives less than the insurance premium, which increases the probability of ruin of the company.

Personal voluntary life insurance and pension insurance are an integral part of life in all developed countries. It is connected with the highly developed culture of insurance in these countries and the awareness of the need for its conclusion. In our country this type of insurance is not yet in great demand, and the market of such insurance products is still in the formative stage. Taking into account the demographic and economic situation (introduction of the mechanism of sanctions and counter-sanctions), many problems arise that affect the majority of the population of the Russian Federation. Special problems arise in the pension provision of citizens. The increase in life expectancy, the reorientation of values (in particular, the increase in the age of women giving birth in favor of building a career) leads to an increase in the burden on the able-bodied working population. For the further economic development of our country, it is necessary to popularize new tools to ensure decent living conditions. Voluntary personal life insurance and pension insurance contribute to solving this "pension problem". This, in turn, helps reduce the burden on the state, raises the level of self-awareness of the population, and helps ensure a decent standard of living after retirement. The object of the study is the Russian market for long-term life insurance in the context of individual pension insurance.

2 Literature Review

One of the priority programs currently being carried out by the government is the promotion of voluntary personal life insurance and pension insurance. At the same time, the Central Bank's policy is aimed at tightening control over the activities of insurance companies in order to create adequate insurance reserves and require a reasonable tariff rate. Actuarial calculations are based on the study of financial schemes, taking into account the stochastic nature of insured events (Association of professional actuaries 2017). The need for actuarial calculations is associated with an equivalent payment calculated by exact mathematical methods in the event of an

insured event. Actuarial calculations create adequate probabilistic statistical models that are used in specific calculations for insurance contracts. In addition to the accidental component, the actuarial contract is a financial instrument in which the invested money is invested to generate income.

With each passing year, the role of mathematical methods of evaluation in various branches of the economy grows. Thus, the authors devote their research to the mathematical foundations of the theory of life insurance and pension schemes (Bowers et al. 1997; Black Jr et al. 2013), the methodological foundations of housing insurance against natural-ecological and technogenic risks (Sukhorukova and Serdyukov 2015), the economic model of optimization in the centralized procurement management of subsidiaries of the state corporation (Sukhorukova and Likhachev 2016), the application of the environmental audit procedure in the system of environmental insurance of agricultural enterprises in contaminated areas (Sukhorukova and Shved 2014), the level of development, and availability of information and communication technologies for the population (Minashkin 2014). At present, actuarial calculations are part of the mathematical theory of insurance and are used not only to estimate tariffs (Boyle et al. 1998; Olivieri and Pitacco 2011) but also to justify the company's insurance reserves, franchise sizes, and liability limits, assess the financial stability of the insurance portfolio, and address a number of other problems (Chistyakova and Sukhorukova 2017; Gantenbein and Mata 2008). The application of the methods of actuarial calculation contributes to the development of effective business models of the insurance company and will provide leading positions in the market of personal insurance services.

3 Methodological Framework

The purpose of the article is the methodological justification for the application of the actuarial control and management system in the field of risk insurance in the implementation of joint activities of partners. In the article features of the national insurance system are considered. The term of validity of the contract of lifelong maintenance of spouses under conditions of inheritance of their property is investigated. Inheritance rights arise at the time of the death of the second spouse. An economic-mathematical model for calculating the average lifetime of a lifetime contract concluded with the spouses is developed, which makes it possible to optimize the conduct of the insurance business. An analytical expression is obtained for the mathematical expectation and variance of the validity of the contract. The actuarial technique of calculation of insurance tariffs by methods of mathematical and imitating modeling is used. An economic-mathematical model for calculating insurance tariffs for personal life insurance has been constructed, and it is assumed that the spouses are insured, and the beneficiary is one of them. The average time of the contract of lifelong maintenance, concluded with partners (spouses), allows optimizing the conduct of the insurance business. An analytical expression is obtained for the mathematical expectation and dispersion of the contract time.

When performing the calculations, it is assumed that the methods of probability theory, actuarial mathematics, and, if necessary, numerical methods and methods of simulation are of use.

4 Results and Discussion

This article is a continuation of the research carried out by the authors in their work (Chistyakova and Sukhorukova 2017). This work is devoted to the joint insurance of several participants. The paper considers the problem of calculating the average lifetime of a contract of life imprisonment concluded with spouses. Namely, it is assumed that the contract of lifelong maintenance of spouses is concluded on the conditions of inheritance of their property. Find the average time before entering into the rights of inheritance.

We introduce the necessary notation. Denote by (x, y) the age vector of the wife and husband at the time of the contract and through (ω_1, ω_2) – the maximum possible values of the ages of the wife and husband, respectively. These parameters are assumed to be given by condition. The moment of conclusion of the contract is considered zero; from it we start counting the time of the contract. Since the concluded contract is related to the life expectancy, but with two participants, then obviously the validity of the agreement is a priori in the interval: $(0, \max(\omega_1 - x, \omega_2 - y))$. In addition to the listed numerical parameters of the problem, we introduce two random variables T_x , the residual lifetime of the wife of age x , and T_y , the residual lifetime of the husband of age y . For our treaty, as an individual probabilistic characteristic of life, consider the distribution function of the residual life span. In particular, for the wife it has the form $F_{T_x}(t) = P(T_x < t | T_x > 0)$ and similarly for the husband $F_{T_y}(t) = P(T_y < t | T_y > 0)$. We denote the densities, respectively, $f_{T_x}(t)$ and $f_{T_y}(t)$. The carriers of these distributions obviously have the form $(0, \omega_1 - x)$ and $(0, \omega_2 - y)$, respectively. We assume that the random variables T_x and T_y are independent.

Let the time of the contract be equal to a random value τ . Obviously, $\tau = \max\{T_x, T_y\}$. Then for its distribution function, we obtain the relation:

$$F_\tau(t) = P(\tau < t) = \begin{cases} 0 & \text{at } t \leq 0, \\ F_{T_x}(t) \cdot F_{T_y}(t) & \text{if } 0 \leq t < \min\{\omega_1 - x, \omega_2 - y\}, \\ F_{T_x}(t) & \text{at } \omega_2 - y \leq t < \omega_1 - x, \text{ if } \omega_1 - x \geq \omega_2 - y, \\ F_{T_y}(t) & \text{at } \omega_1 - x \leq t < \omega_2 - y, \text{ if } \omega_1 - x < \omega_2 - y, \\ 1 & \text{at } t \geq \max\{\omega_1 - x, \omega_2 - y\}. \end{cases}$$

This function is continuous, piecewise-differentiable, and therefore has density (discontinuous). Correspondingly, we calculate it:

$$f_{\tau}(t) = \begin{cases} 0 & \text{at } t \leq 0 \text{ and } t \geq \max\{\omega_1 - x, \omega_2 - y\} \\ f_{T_x}(t) \cdot F_{T_y}(t) + f_{T_y}(t) \cdot F_{T_x}(t) & \text{at } 0 \leq t < \min\{\omega_1 - x, \omega_2 - y\}, \\ f_{T_x}(t) & \text{at } \omega_2 - y \leq t < \omega_1 - x, \text{ if } \omega_1 - x \geq \omega_2 - y, \\ f_{T_y}(t) & \text{at } \omega_1 - x \leq t < \omega_2 - y, \text{ if } \omega_1 - x < \omega_2 - y, \end{cases}$$

Now the average search time of the contract is

$$\begin{aligned} M\tau &= \int_0^{\max\{\omega_1-x, \omega_2-y\}} t f_{\tau}(t) dt \\ &= \int_0^{\min\{\omega_1-x, \omega_2-y\}} t \left(f_{T_x}(t) \cdot F_{T_y}(t) + f_{T_y}(t) \cdot F_{T_x}(t) \right) dt \\ &\quad + \int_{\min\{\omega_1-x, \omega_2-y\}}^{\max\{\omega_1-x, \omega_2-y\}} t f_{\tau}(t) dt \end{aligned} \quad (1)$$

where the second integral, depending on the ratio of the parameters, is calculated in different ways:

$$\int_{\min\{\omega_1-x, \omega_2-y\}}^{\max\{\omega_1-x, \omega_2-y\}} t f_{\tau}(t) dt = \begin{cases} \int_0^{\omega_1-x} t f_{T_x}(t) dt, & \text{if } \omega_1 - x \geq \omega_2 - y, \\ \int_{\omega_2-y}^{\omega_2-y} t f_{T_y}(t) dt, & \text{if } \omega_1 - x < \omega_2 - y. \end{cases} \quad (2)$$

In order to obtain a variance of the validity of the contract, it is sufficient to obtain (Chistyakova and Sukhorukova 2017)

$$\begin{aligned} M\tau^2 &= \int_0^{\max\{\omega_1-x, \omega_2-y\}} t^2 f_{\tau}(t) dt \\ &= \int_0^{\min\{\omega_1-x, \omega_2-y\}} t^2 \left(f_{T_x}(t) \cdot F_{T_y}(t) + f_{T_y}(t) \cdot F_{T_x}(t) \right) dt \\ &\quad + \int_{\min\{\omega_1-x, \omega_2-y\}}^{\max\{\omega_1-x, \omega_2-y\}} t^2 f_{\tau}(t) dt \end{aligned} \quad (3)$$

and substituting (1) and (3) in the formula for the dispersion $D\tau = M\tau^2 - (M\tau)^2$.

Here are some examples to illustrate. Let $x = 70$, $y = 75$ and $\omega_1 = 100$, $\omega_2 = 95$. Suppose that the residual lifetime at such ages has a uniform distribution on its carriers. Then,

$$\begin{aligned}
 F_{T_x}(t) &= \frac{t}{30}, \quad t \in (0, 30) & F_{T_y}(t) &= \frac{t}{20}, \quad t \in (0, 20), \\
 f_{T_x}(t) &= \frac{1}{30}, \quad t \in (0, 30) & f_{T_y}(t) &= \frac{1}{20}, \quad t \in (0, 20), \\
 M\tau &= \int_0^{20} t \cdot \left(\frac{1}{30} \cdot \frac{t}{20} + \frac{1}{20} \cdot \frac{t}{30} \right) dt + \int_{20}^{30} t \\
 &\quad \cdot \frac{1}{30} dt = \frac{t^3}{900} \Big|_0^{20} + \frac{t^2}{60} \Big|_{20}^{30} = \frac{8000}{900} + \frac{500}{60} \approx 17,2 \\
 M\tau^2 &= \int_0^{20} t^2 \cdot \left(\frac{1}{30} \cdot \frac{t}{20} + \frac{1}{20} \cdot \frac{t}{30} \right) dt + \int_{20}^{30} t^2 \\
 &\quad \cdot \frac{1}{30} dt = \frac{t^4}{1200} \Big|_0^{20} + \frac{t^3}{90} \Big|_{20}^{30} = \frac{160000}{1200} + \frac{27000 - 8000}{90} \approx 344,44 \\
 D\tau &= M\tau^2 - (M\tau)^2 = 344,44 - (17,2)^2 \approx 48,6, \quad \sqrt{D\tau} \approx 6,97.
 \end{aligned}$$

As a second illustration, let us consider the more often used assumption of life expectancy. Suppose now that the life expectancy of a person has the distribution of Erlang with the density of the species $f(t) = \frac{t}{a^2} e^{-\frac{t}{a}}$, $t > 0$. This means that this law corresponds to the duration of the residual life of the child born (zero age). The agreement on unlimited life span in this case is entirely acceptable for the convenience of calculations, since the far-tail probabilities of the Erlang law are practically zero. Parameter a for each of the spouses, of course, has its own value (we denote the parameters through a and b , respectively). Then the survival function of a person of age x , which by definition $S_{T_x}(t) = 1 - F_{T_x}(t)$, has the form

$$\begin{aligned}
 S_{T_x}(t) &= 1 - F_{T_x}(t) = P(T_x \geq t | T_x > 0) = \frac{P(T_x \geq t)}{P(T_x > 0)} = \frac{P(T_0 \geq x + t)}{P(T_0 > x)} \\
 &= \frac{S_{T_0}(x + t)}{S_{T_0}(x)}, \quad t \geq 0.
 \end{aligned}$$

Now, knowing the density of the Erlang duration of the residual life of the baby, we obtain (Falín and Falín 2003) its survival function. Now, knowing the density of the Erlang duration of the residual life of the baby, we obtain its survival function

$$S_{T_0}(u) = \int_u^{+\infty} \frac{t}{a^2} e^{-\frac{t}{a}} dt = \frac{u + a}{a} e^{-u/a}, \quad u \geq 0$$

Consequently, the survival function of a person of age x is

$$S_{T_x}(t) = \frac{S_{T_0}(x+t)}{S_{T_0}(x)} = \frac{\frac{x+t+a}{a} e^{-(x+t)/a}}{\frac{x+a}{a} e^{-x/a}} = \frac{x+t+a}{x+a} e^{-t/a}, \quad t \geq 0.$$

Then the distribution function and the density of the duration of the residual human life of the age are equal, respectively:

$$F_{T_x}(t) = 1 - S_{T_x}(t) = 1 - \frac{x+t+a}{x+a} e^{-t/a}, \quad t \geq 0,$$

$$f_{T_x}(t) = \frac{dF_{T_x}(t)}{dt} = \frac{x+t}{a(x+a)} e^{-t/a}, \quad t \geq 0.$$

We received all the characteristics necessary to calculate the average time of the insurance contract. It remains only to note that in this case the agreement on unlimited life expectancy leads to a simplification of the distribution function and the density of the term of the contract, namely:

$$F_{\tau}(t) = \begin{cases} 0 & \text{at } t \leq 0, \\ F_{T_x}(t) \cdot F_{T_y}(t) & \text{at } 0 \leq t < +\infty \end{cases}$$

$$= \begin{cases} 0 & \text{at } t \leq 0, \\ \left(1 - \frac{x+t+a}{x+a} e^{-t/a}\right) \left(1 - \frac{y+t+b}{y+b} e^{-t/b}\right) & \text{at } 0 \leq t < +\infty, \end{cases}$$

$$f_{\tau}(t) = \begin{cases} 0 & \text{at } t \leq 0, \\ f_{T_x}(t) \cdot F_{T_y}(t) + f_{T_y}(t) \cdot F_{T_x}(t) & \text{at } 0 \leq t < +\infty, \end{cases}$$

$$= \begin{cases} 0 & \text{at } t \leq 0, \\ \frac{x+t}{a(x+a)} e^{-t/a} \cdot \left(1 - \frac{y+t+b}{y+b} e^{-t/b}\right) + \frac{y+t}{b(y+b)} e^{-t/b} \cdot \left(1 - \frac{x+t+a}{x+a} e^{-t/a}\right) & \text{at } 0 \leq t < +\infty, \end{cases}$$

And use equality (1), in which $\omega_1 = \omega_2 = +\infty$, and the integral (2) is equal to zero. We get

$$M\tau = \int_0^{\max\{\omega_1-x, \omega_2-y\}} t f_{\tau}(t) dt = \int_0^{+\infty} t \left[\frac{x+t}{a(x+a)} e^{-t/a} \cdot \left(1 - \frac{y+t+b}{y+b} e^{-t/b}\right) + \frac{y+t}{b(y+b)} e^{-t/b} \cdot \left(1 - \frac{x+t+a}{x+a} e^{-t/a}\right) \right] dt$$

Integration in this case will be more cumbersome, but quite simple, especially if we take advantage of the properties of the gamma function.

Note that the values of parameters a and b can be chosen based on the average life expectancy of a person. We assumed that the life span has the distribution of Erlang; therefore, $MT_0 = 2a$ for women and $MT_0 = 2b$ for men (14). For example, if these

indicators are equal for women, 74 years, and for men, 65 years, then we can take $a = 37$ and $b = 32.5$.

In the case when the integrals (1) – (3) are not computed by the analytical methods, or are too cumbersome to be computed, numerical methods of integration can be applied.

5 Conclusion

The results of the research make it possible to obtain the analytic expression of the average lifetime of the contract of lifelong maintenance concluded with partners (spouses), and the analytical expression for the mathematical expectation and variance of the validity period of the contract is obtained. The parameters found allow us to optimize the conduct of the insurance business taking into account regional features of the subjects of the Russian Federation.

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Budget Planning in Leading Russian Regions



Evelina Peshina, Natalia Istomina, and José L. Niño-Amézquita

Abstract Modern economic literature often raises questions about the state and problems of budget planning in certain regions of the Russian Federation, the introduction of new nationwide innovations into the budget planning of regions, and the update of budget legislation. It is worth studying the specifics of budget planning in certain groups of subjects of the Russian Federation, primarily in the regions-leaders and regions-outsiders in the context of the duality of budget planning in a federal state. The article presents the results of the analysis of the budget planning system in the regions-leaders and regions-outsiders of Russia in terms of social and economic development of the territories. It is proved that socioeconomic leadership of the region, first of all, affects the volume of inter-budgetary transfers from the federal budget in the form of subsidies. Subsidies from the federal budget can be received by a regions-leader on a smaller spectrum of directions than the regions-outsider, but with a certain interest of the federal center in the accelerated development of the regions-leaders, the situation can be the opposite. It is described that the leadership of the region in the economic space of the Russian Federation also influences the system of budget planning in terms of assessing the volume of tax revenues to the regional budget.

1 Introduction

The current stage of the budget reform in Russia once again touched upon the use of program management methods. Despite the fact that in the planned economy of Russia, the program-target method was widely spread, since the 1990s, our country

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has been developing a socioeconomic system, including budget planning, but already taking into account the requirements of the market economy and foreign experience.

Quite often, there is no concept of “budget planning,” but “Planning, Programming, and Budgeting System, PPBS,” used in translation as the planned and program-budget system. Sometimes in the research literature it is denoted as planning, programming, budgeting of PPB. This term is used, for example, in the budget theory of the public sector (Khan and Hildreth 2002).

It should be noted that before the introduction of SPFS in the United States, the largest United States research organization, the National Bureau of Economic Research, in 1960, conducted a study of publications on the Soviet system of industrial planning as one of the unique world systems (Grossman 1960).

Out of 267 modern countries and regions of the world, only 27 states are federal or have elements of federalism (according to the constitution), which is about 10% of the total. Almost in all federal countries of the world, the federal center does not regulate the system of budget planning for the subjects of the federation and local self-government bodies, which cannot be said about Russia (Nawrot 2014; Jiroudková et al. 2015; Moyseyenko and Ryvak 2016).

Budget planning in the subject of the Russian Federation, on the one hand, is based on the principle of independence, but on the other hand is built into the rigid system of relations between the federal center and all 85 subjects of the Federation. Such a dualism is most clearly manifested when uniting the regions of the Russian Federation on the basis of the principle of socioeconomic development – for regions-leaders and regions-outsiders, the specific features of budget planning are characteristic.

2 Materials and Methods

To conduct research, the budgetary legislation of the Russian Federation (RF) and the subjects of the RF in terms of budget planning, as well as the laws on the federal budget, the budgets of the constituent entities of the Russian Federation, were used as source materials, which listed the parameters of financial transfers allocated to the subjects of the Russian Federation.

The definition of regions-leaders and regions-outsiders was based on open statistical data on the subjects of the Federation, formed by the state statistical bodies of the Russian Federation.

To achieve the stated goal of the study, an induction method was used, in which, based on a detailed study of the state of budget planning, a number of leading regions of the Russian Federation generalizing characteristics of budget planning in the leading regions of the Russian Federation as a whole were formulated.

Also, when performing the research, the generally accepted methods of scientific search and cognition were used, such as dialectical, historical, and comparative.

3 Literature Review

Considering the specifics of the issue, it should be noted that modern publications on various aspects of the functioning of the budgets of the Russian Federation constituent entities, including those on budget planning, in publications with international citation systems are rare (Strielkowski et al. 2017). Numerous publications on the topics of interest are prepared by Povarova (2015a, b, 2016a, b, 2017), and the author considers the problems of forming budgets of the subjects of the Russian Federation in the conditions of economic crisis, dependence of the RF constituent entities' budgets on the financial policy of the federal center, and the specifics of budget policy and budget planning in a separate subject of the Russian Federation. The authors' proposals are aimed at improving the quality of budgetary activities in the constituent entities of the Russian Federation. These activities can be inspired by the processes in other countries or even regions (Niño-Amézquita et al. 2017).

Foreign and Russian researchers disclose the issues of fiscal federalism (through vertical and horizontal balance) (Ermacov and Mikesell 2016), the prerequisites for an effective system of budget federalism (Odin et al. 2016), fiscal federalism and personal income in the subjects (constituent entities) of the federation (Yashina et al. 2017), the interdependence of fiscal decentralization and economic growth (Yushkov 2016), and migration (Simionescu et al. 2016), as well as on the role of the state in that process (Chvátalová 2016).

When describing the socioeconomic situation of the Russian regions, which relate, among other things, to the group of leaders in terms of economic development indicators, many researchers and scholars, in particular (Ayvazya and Afanasyev 2016; Lukaszewicz and Fedotova 2016; Nikitin 2016; Nuree and Simakovsky 2017), consider the innovative activity of Russian regions. It is emphasized that the stimulation of innovation should be based on a combination of state policy, financial, scientific, and technical, and other efforts.

4 Results

Traditional regions-leaders from the point of view of indicators of social and economic development in the Russian Federation are regions on the territory of which the following exist:

- The extraction of natural resources is carried out, or the so-called “resource-type” regions (Levin et al. 2015; Levin and Sablin 2016). The economy of such regions is built on the extraction of resources, the mining industry, and is export-oriented. In the structure of these subjects of the Russian Federation, both traditional centers and new territories are distinguished (Belousova and Kritskaya 2016).
- There are enterprises of the metallurgical industry (Pechenskaya 2015)..
- As well as cities of federal significance – Moscow and St. Petersburg.

The formation of the budget or budget planning in general – at the federal, regional, and municipal levels in the Russian Federation – is based on a set of formalized procedures, which corresponds to the ideology of macro-banking (LeLoup 1988; Schick 1988), and is also based on the principles of program budgeting described in the middle of the twentieth century (Axelrod 1989). The budget planning in the leading regions implies mandatory accounting of the requirements stipulated by the budget legislation of the Russian Federation. The direct influence of the region's economic leadership on budget planning is manifested in the types and amounts of transfers that a constituent entity of the Russian Federation can receive from the federal budget and, therefore, take it into account when forming its own budget.

The regions-leader in terms of the level of economic development has a high level of budgetary security – an integrated indicator – determined by the Ministry of Finance of the Russian Federation in respect of each RF constituent entity in the formation of the budget for the short- and medium-term periods. First of all, when determining budgetary security, the tax potential of the region is taken into account – the ability to generate tax revenues. As a rule, the leading regions are characterized by the highest indexes of tax potential in Russia. Actually, the indicator of the budget provision of the region is compared with the level of alignment established by the Ministry of Finance of the Russian Federation. For the leader regions, the personal level of budgetary security always exceeds this criterion, which is the basis for excluding such regions from the list of recipients of subsidies.

The lack of subsidies in the revenue side of the budgets of the leading regions, on the one hand, deprives them of a certain part of the resources that could be used to solve regional issues. On the other hand – and this is fundamentally important – the lack of subsidies expands the independence of the regions-leaders in implementing their own vision of certain budgetary procedures and increases the degree of independence in terms of state control over the budgetary process at the level of the Russian Federation constituent entity.

Subsidies from the federal budget are an important source of budget revenues for the Russian Federation constituent entities. The procedure and conditions for granting subsidies are determined by the state authorities of the subjects of the Russian Federation. At the same time, the subsidy implies co-financing from the federal and regional levels.

The federal subsidy allows the state to influence the resolution of certain problems/issues in the constituent entities of the Russian Federation. Leading regions, through receiving state subsidies, can ensure the accelerated development of the country as a whole, so often more diverse subsidies are allocated to such territories than to regions with a low level of economic development. With regard to federal subsidies for the construction and reconstruction of the road network of the RF constituent entities, preparation for major national events in the constituent entities of the Russian Federation, and the development of certain sectors of the economy and/or individual industries, it can be argued that they have a significant positive impact on the development of the regions themselves and the state.

On the other hand, it should be noted that the lack of financial resources at the federal level may negatively affect the possibility of granting subsidies to the leading regions, since subsidies are of more need of the problem entities of the Russian Federation. In this case, the formation of the revenue side of the budget of the regions-leader is prepared without federal grants and with small amounts of federal subsidies. This – especially in the context of centralization of tax revenues at the federal level – reduces the financial base of the budgets of the leading regions, given that the main part of the federal budget revenues is formed due to the functioning of the economy of these territories.

It should be clarified that the status of the regions-leader, in addition to the range of areas for which subsidies are allocated, affects the share of regional/federal co-financing, which is established for each subsidy. Economically developed regions take on a higher share of co-financing from their side with a smaller share of federal co-financing (regarding the outsider territories, the opposite situation is observed).

In the process of budget planning in the RF constituent entities, questions about the timing and scope of federal subsidies are not always resolved in accordance with the rules for drafting a budget law for a constituent entity of the Russian Federation. Quite often specific parameters of subsidies become known later than necessary for the qualitative completion of all actions within the framework of budget planning. This shortcoming is a common “weak spot” for budget planning in all constituent entities of the Russian Federation.

For regions with a high level of economic development, unlike outsider regions, tax revenues play a significant role in the formation of the budget. This is due to the presence of industries, infrastructure, and financial sector in the territories of such subjects of the Russian Federation, creating significant volumes of activity and related financial indicators that determine the volume of tax exemptions. It should be emphasized that this circumstance strengthens the specifics of budget planning in the leading regions, since significant amounts of tax revenues predetermine high tax potential, hence exclude the possibility of obtaining federal subsidies and increase the share of regional co-financing in the framework of projects subsidized by the Federation; on the other hand, tax revenues are used by the RF subjects to resolve issues of their own importance without additional financial control by the federal center.

5 Discussions

The obtained results make it possible to get an idea of the specifics of budget planning in the regions-leaders of the Russian Federation, but it should be noted that, mainly, the leading position of the Russian Federation’s subjects influences the budget planning in terms of the revenues of regional budgets. A high level of economic development directly determines the absence of federal subsidies in the

budget of the subject-leader and indirectly affects the amount and volume of subsidies from the federal budget.

Questions regarding the planning specifics of tax revenues of the budgets of the leading regions should be considered in connection with the problem of the economic (tax) potential growth of the RF constituent entities and the revenue base of regional budgets. It should be noted that the planning of tax revenues of the budgets of the leader regions is based on the economic potential in terms of quantitative (volumetric) indicators, but the leading position of the constituent entities of the Russian Federation does not predetermine the initial methodological specifics of tax revenue planning.

The results of the study do not allow making unambiguous conclusions regarding the specifics of budgetary expenditure planning in the leading regions, since it cannot be said that economic leadership is the main factor that is taken into account when planning expenditures. Primary in this process is the list of powers of the RF constituent entities, which is established by federal legislation and is not transformed depending on the level of the economic situation in the region.

6 Conclusions

The study of the specifics of budget planning in the subjects of the Russian Federation – leaders in terms of economic development – allows to get a more complete picture of the budgetary situation in the leading regions, coordinates the general vector of the social and economic development of the state and specific territorial development tasks, and ensures the most complete implementation of innovations into the sphere of the budget process by state bodies.

We conclude that the leading regions of the Russian Federation set the pace for the other regions in the country when it comes to budget planning and financial discipline. Quite often, the leading regions are made an example for the other territorial entities and units. Leadership in the regional development can therefore be promoted using the best of examples of the current champions and success stories.

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The Experience of the Leading EU Countries in Contention with Shadow Economy: Recommendations for Ukraine



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Abstract In modern conditions of global market transformations, the change of technological state of Ukraine's self-awareness as an independent country (which is a component of European integrational processes) assumed features of the state strategy and a key priority of the stable social and economic development. Herewith, one of the main tasks of Ukraine's integration into the European area is the construction of the society-oriented economy and implementation into practice of the democratic state standards. The problem of unshadowing of economic relations, which have become the result of market transformation of the national economy due to the great extent and different forms of shadow process demonstration, essential influence on the economic dynamics, also demands immediate solution. An interesting fact is that unlike Ukraine the shadow economy is almost absent in the EU countries in such sectors as extraction of minerals, electric power industry, and finances. Herewith, shadow economy has become a certain balancer of the western countries' economy, that is, the less is an incremental capacity in the official sector, the higher is the rise in the illegal one and vice versa. At the same time, it is rational to implement recommendations, which were introduced by the FATF, World Bank, and Transparency International Ukraine, into national social and economic system not only because they are effective, complete each other, and are aimed at coping with immediate national economic problems but firstly because observance of the generally accepted world standards is an important step in acceleration of European integration processes. They increase the level of trust of the foreign partner countries toward Ukraine with the help of transformation of the national economy to the European standards.

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1 Introduction

Enhancement of the problem of global shadow markets in terms of the crisis overcoming and assurance of the world and national finance systems have caused topicality of this problem review on the sessions of the Parliament Assembly of the Council of Europe since 2011 (Euronews 2015). The main problems of the economic shadow relations are shadow occupation and shadow financial flows (Gryshova 2015; Mostenska 2015; Moyseyenko and Ryvak 2016; Naumov 2016; Strielkowski and Gryshova 2017). That is why the investigation of the shadow economy, the determination of peculiarities of its demonstration in different countries, and working out of the efficient mechanisms of national economic protection from the negative influence of shadow processes become so actual (Zielińska 2016). Shadow economy transformation and coping with corruption is not only a factor of economic growth, solution of several social issues, but also the primary task on the way of Ukraine's integration with the European Union (Gryshova et al. 2017a). Collaboration between Ukraine and the European Union in the sphere of shadow economy transformation, which is implemented into the Partnership and Collaboration Agreement and common activity plans, may have positive results upon condition of the constant monitoring of this process for and behalf of the international organizations and supranational EU institutions as well as with the thorough fulfillment of obligations taken by Ukraine (Gryshova et al. 2017b).

2 Literature Review

While investigating the essence of shadow economy, Weiner reviews it as a global phenomenon, which comes out of the boundaries of one country. He states that "...in most specified definitions shadow market is a group of independent, very wealthy countries and investors, who in fact have the opportunity to manage the world economy through the great supply of stocks, loan stocks, estate property, currency and other financial assets, which are kept by the unstable investment structures (hedge funds, direct investment funds, sovereign investment and stabilization funds) as well as by the huge holding companies" (Gryshova 2015). The investigation of the numerous economic organizations and independent information agencies prove the fact the level of shadow economy in the modern world comprises from 18% to 35% of the worldwide gross domestic product (GDP). In such a way, according to the accounts of the World Bank for the period of 2012, the level of the world GDP comprised 71.66 trillion US dollars. That means that the most pessimistic account proves that nowadays about 26 trillion US dollars are produced in the shadow sector (Global Risks Report 2011). For countries of the European Union, Turkey, Norway, and Switzerland, in 2013 the general level of shadow sector comprised 18.5% of GDP and was equal to 2.15 trillion euros (Pichugina 2015).

The results of investigations of shadow economy by the National Institute of Strategic Research convince that the most meaningful component of shadow economic processes is an illegal activity, particularly economic criminality, the character of which has changed in a quality manner, thanks to the production globalization processes (Kapitsa 2014). On the other hand, while investigating the capacity of the markets of certain illegal goods and services, the experts of the world economy fund point at the fact that the particle of fake medicines is evaluated nowadays at the level of 200 billion dollars, the level of prostitution is 190 billion dollars, the level of gage is 140 billion dollars, the level of fake electronic engineering is 100 billion dollars, the level of cocaine is 80 billion dollars, the level of pirated software is 50 billion dollars, and the level of human trafficking is 30 billion dollars. At the same time, about 20 billion US dollars comprise the crimes in the sphere of environment protection and natural resources trade (Schneider and Kearney 2013). As a comparison, it is worth stating that the size of some mentioned shadow markets exceeds the annual Ukraine's budget.

Unfortunately, the shadow economy exists in all countries around the world, although it differs according to size, structure, and development (Jiroudková et al. 2015) and is quite often reflected in the mass media, or mass media also become its part (Čábelková et al. 2015). The extent and peculiarities of shadow economy in different countries and regions of the world are closely connected with national economic models and the level of market relations readiness (Ministry of Economic Development and Trade of Ukraine 2016). For example, much lesser specific weight of the shadow sector in national economy is peculiar for the most developed countries (Chamberlin 2015). According to different estimates, it comprises 12–16% of GDP, while in developing countries, this rate comprises 23–25% of GDP; in the countries with transition economy, it comprises 30–50% of GDP (The shadow economy in EU countries: how to bring workers to the light 2015). Moreover, it is worth noticing that developed countries are also incoherent in this context, as there are representatives with high rates of shadow activity among them. Austria, the USA, Switzerland, and Japan have the lowest relative indexes of the shadow sector particle (at the level of 8–10% of GDP). In our opinion, shadow economic relations motivation in developed countries is explained with the mostly oversize tax pressure of the enterprises and oversize regulation of the production relations.

3 Purpose and Methods of Study

The aim of the research is the analysis of the economy shadow sector modern condition of leading countries of the European Union and further implementation of their experience in confrontation with corruption and shadow economy in Ukraine. The realization of the research aim is achieved with the help of the following methods: the size measurement of the shadow sector of European countries and their division into three groups according to the level of national economy shadowing – research of the shadow economy structure as a whole in the European

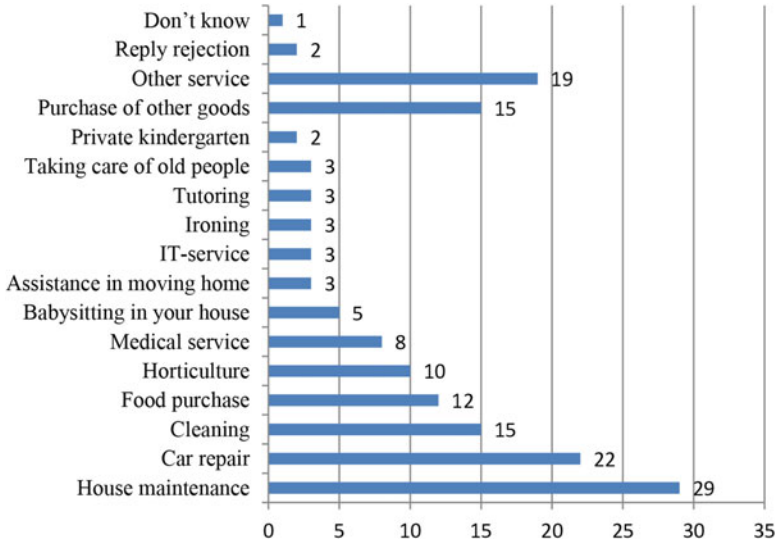


Fig. 1 The structure of the shadow economic activity in the EU countries according to its differentiated types (Source: Kharazishvili 2016)

Union; use of the results of the special questionnaire by the agency “Eurobarometer” (Koretskaya 2011), with 2896 respondents, who state that according to the carrying out of shadow economic relations during the last 12 months by the end of 2014 the greatest amount of the shadow economy in building was 29%, in the service of cars 22%, and agricultural sphere and horticulture 25% (Fig. 1 that follows); and generalization of the facts, which were received by the famous world agencies for working out of recommendations, preventive measures, and so on.

4 Results and Discussions

The last economic crisis has become one of the reasons of shadow processes’ rollout in the world, particularly in the countries of the European Union. From the point of view of shadow sector size, the countries of the European Union can be divided into three groups (Kharazishvili 2016).

The first group consists of 14 states, which have the least sizes of the shadow economy. By the beginning of 2016, several countries belong to this group. They are Austria and Luxembourg, 8.2–8.3%; the Netherlands, 9.0%; Great Britain, 9.4%; and Ireland, 11.3%. The worst rates for this group are basic for Belgium, 16.2%, and Portugal, 17.6% (Table 1).

The second group comprises the countries where the rates of shadow economy are average for all the EU countries and are almost 20–25% of GDP. Several countries belong to this group: Spain, 18.2%; Italy, 20.6%; Hungary, 21.9%; and

Table 1 The dynamics of the shadow economy level in the EU countries

Country	Years						± 2015 compared to 2010
	2010	2011	2012	2013	2014	2015	
Austria	8.2	7.9	7.6	7.5	7.8	8.2	0
Belgium	17.4	17.1	16.8	16.4	16.1	16.2	-1.2
Bulgaria	32.6	32.3	31.9	31.2	31.0	30.6	-2.0
Croatia	29.8	29.5	29.0	28.4	28.0	27.7	-2.1
The Czech Republic	16.7	16.4	16.0	15.5	15.3	15.1	-1.6
Denmark	14.0	13.8	13.4	13.0	12.8	12.0	-2.0
Estonia	29.3	28.6	28.2	27.6	27.1	26.2	-3.1
Finland	14.0	13.7	13.3	13.0	12.9	12.4	-1.6
France	11.3	11.0	10.8	9.9	10.8	12.3	+1.0
Germany	13.9	13.2	12.9	12.4	12.2	12.2	-1.7
Greece	25.4	24.3	24.0	23.6	23.3	22.4	-3.0
Hungary	23.3	22.8	22.5	22.1	21.6	21.9	-1.4
Ireland	13.0	12.8	12.7	12.2	11.8	11.3	-1.7
Italy	21.8	21.2	21.6	21.1	20.8	20.6	-1.2
Latvia	27.3	26.5	26.1	25.5	24.7	23.6	-3.7
Lithuania	29.7	29.0	28.5	28.0	27.1	25.6	-4.1
Luxemburg	8.4	8.2	8.2	8.0	8.1	8.3	-0.1
Malta	26.0	25.8	25.3	24.3	24.0	24.3	-1.7
The Netherlands	10.0	9.8	9.5	9.1	9.2	9.0	-1.0
Poland	25.4	25.0	24.4	23.8	23.5	23.3	-2.1
Portugal	19.2	19.4	19.4	19.0	18.7	17.6	-1.6
Romania	29.8	29.6	29.1	28.4	28.1	28.0	-1.8
Slovenia	24.3	24.1	23.6	23.1	23.5	23.3	-1.0
Cyprus	26.2	26.0	25.6	25.2	25.7	24.8	-1.4
Spain	19.4	19.2	19.2	18.6	18.5	18.2	-1.2
Slovakia	16.4	16.0	15.5	15.0	14.6	14.1	-2.3
Sweden	15.0	14.7	14.3	13.9	13.6	13.2	-1.8
Great Britain	10.7	10.5	10.1	9.7	9.6	9.4	-1.3
EU-28 in the average	19.9	19.6	19.3	18.8	18.6	18.3	-1.6

Source: Koretskaya (2011)

Greece, Poland, Malta, and Cyprus, 22.4–24.8%. Lithuania has the worst rates in this group – 25.6%.

The third group comprises the countries in which shadow economy rates are the highest among all the EU countries and amount to the third part of GDP. We have put some countries into this group. They are Estonia, Croatia, and Romania with the shadow level of 26.2–28%. Bulgaria has the worst rates in this group – 30.6% of GDP. It is the state where over 60% of shadow economy is engaged in tourism.

The EU as a whole has an interesting structure of shadow economy. According to the investigations of the French magazine *Le Monde*, it is formed by the illegal labor

relations of employers and employees, who are mostly engaged in building, agriculture, and house managements. The rest 33.5% are made up with the income, which are hidden from the tax services, often in the sphere of retail business, hospitality industry, payment for a taxi, and so on (Kharazishvili 2016).

So, in opinion of Koretska, the development of shadow economy in the EU countries is caused first of all by (Kurbanov 2014) the tax pressure and the weight of social insurance, abundant proposal of labor, low economic growth, inequality of income, corruption and non-efficiency of the state adjustment, and so on.

The leading EU countries with the developed economy pay a lot of attention to reduce the economic relations shadow level and reduce corruption. Due to Ukraine's intention to approach European standards, an implementation of the EU countries' experience not only in the political sphere but in economic sphere in particular is very important according to the national economy unshadowing.

One of the main reasons of the shadow economy existence in any country is the corruption of its sectors and the executive bodies. The general level of corruption in Ukraine and several world countries according to the Corruption Perceptions Index 2016 is represented in Fig. 2 (Naumov 2017). Taking it into consideration, we can make a conclusion about unreasonable level of corruption in Ukraine (the higher is the evaluation, the "clearer" is economy), which is evaluated by 29 points in the general rating and assures the 131st position together with Iran, Kazakhstan, Russia, and Nepal in spite of the rising tendency of +4 points comparing with the level of 2013.

Taking it into account, Transparency International Ukraine suggests the following five steps for the fulfillment of the real anticorruption regeneration:

1. To create an efficient system of the anticorruption justice involving foreign specialists as the active participants of selection of judges for this courts. This and the efficient work of the National Anti-Corruption Bureau of Ukraine will allow making the contention with corruption more active. In particular, it will guarantee the efficiency of electronic declaration checkup.
2. Enhance all the opportunities for the efficient investigation and bringing to court all the defendants of "Yanukovich's sanction list." It is important not only to achieve judgment, even indirect, but also to return the stolen money, both offshore and which were left in Ukraine. The same things concern the facts of corruption in the acting government.
3. To involve business, both Ukrainian and international, more actively toward new clear rules and regulation of interrelation in the triangle "society-power-business." To assure stable conditions for business using the methods of deregulation, tax legislation predictability, and change of attitude of entrepreneurs to the state.
4. To carry out audit and to reduce the level of security in the security and defense sector toward such directions as the state budget items, annual plans of the state purchases, information about purchases carried out, and conducted contracts.
5. To adjust the system communication with society and international partners according to the anticorruption reform on the basis of real facts and achievements, but not promises. To abide international obligations legibly.

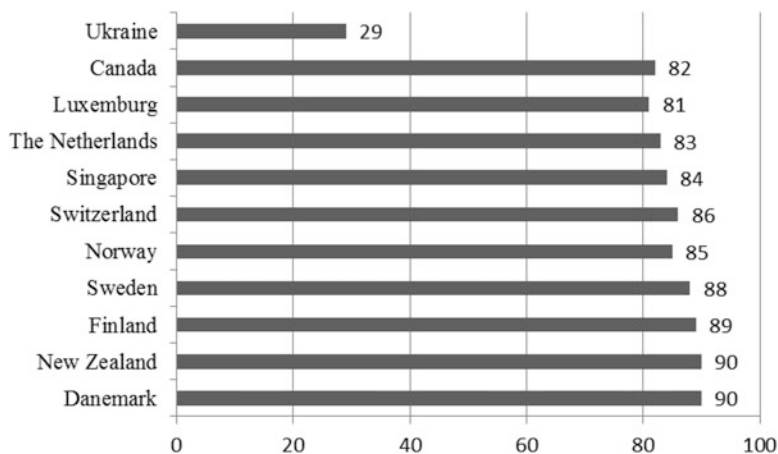


Fig. 2 Rating of the world's leading countries according to the contention with corruption in 2017 (Source: Naumov 2017)

In this context the analysis of the foreign experience of contention with corruption and shadow economic relations in developed countries, especially in the Netherlands, acquires topicality. This analysis is based upon such main principles as:

- Constant accountancy and publicity, particularly the Minister of the Interior reports to the Parliament about the revealed facts of corruption and taken measures.
- Working out of the monitoring system according to different sources of corruption appearance and suspicious people.
- Working out of the anticorruption legislation for civil servants.
- A rough system of punishment, in particular the prohibition to hold the state positions, fines, and suspension from duties fulfillment.
- Implementation of subdivisions which monitor the civil servants' activity in all state bodies; publicity of all materials according to the cases, connected with corruption when it does not damage the system of national safety; civil servants have the right to become familiar with the whole characteristics about themselves.
- Functioning of the system of civil servants' training, which explains all the peculiarities, connected with their activity.
- Functioning of the system of anticorruption state security like social policy.
- Assignment for the civil servants of the registration duty of all cases of corruption, which they are aware of; cooperation with mass media (Gryshova et al. 2017a, b).

An effective control and use of high fines for violation of law are very important for the fulfillment of the effective economy unshadowing. The existing in Ukraine system of fines is the lowest in Europe. The size of sanction for labor law violation comprises 510–850 hryvnias. Nonfulfillment of the inspector's demands toward corrective actions is fined up in the amount of 850–1700 hryvnias. Compared with

Eastern European countries, minimal penal sanctions for non-formalization of labor contract comprise 8.3 thousand hryvnias (Bulgaria) to 100.0 thousand hryvnias (Czech Republic) maximum – to 2.0 million hryvnias (Slovakia).

An illegal labor market gains great development in the EU countries. The situation becomes even worse due to illegal migration and the difference in the amount of salary in the neighboring transitional states and the EU countries. The growth of the unemployment level and, as a consequence, pressure strengthening of social benefits on the budget of the countries took place in the result of enlargement of illegal labor market.

On the basis of the conducted research of the foreign means of economy unshadowing and with the aim to resist shadow economic relations in Ukraine, we propose their implementation according to the spheres of use.

4.1 Administrative Legal Sphere

- Taking into account the efficiency of organization of specialized services on corruption contention in the countries with a low level of shadow economy, it is necessary to found financial control services like anticheat bureau at the local level, by the regional deputy councils with the state financing, which will function at the local level and will include deputies of the local councils and different spheres specialists: economy, law, computer studies, and financial policy. Due to the existing experience of contention with financial flows shadowing, it is worth to involve the specialists of the National Bank of Ukraine, State Fiscal Service of Ukraine, State Audit Service of Ukraine, Department of Treasury of Ukraine, etc.
- To implement differentiated penal sanctions for the enterprises, which encourage the development of shadow labor relations taking into account the sizes of their activity. For instance, penal sanctions in proportion with the quantity of illegal employers and the time of their occupation, if it can be counted, can be used for small enterprises and local enterprises. Withdrawal from the list of the state purchases or disposal of the foreign investment for a certain period of time may be used for large enterprises as a sanction. Such changes will allow reducing the number of illegal employers and make up the budget losses from an illegal employment.
- Implement an increased responsibility of the subjects of economic affairs for the shadow business and corruption activity in the sphere of illegal employment and manipulations connected with the salary and allocations to the social insurance funds.
- To prohibit financing of the political parties for the costs of private or legal entities by law and to implement the control for the money flows, which are available for the latter during their election campaign.
- To carry out nationalization of property, money on the bank accounts and other material values of the corrupt officials, economic criminals and their groupings in the court of law and to use these asset for the benefit of local communities in the

case of the crime with the aim to warn other demonstrations of shadow affairs and corruption.

- To limit the marginal cost in cash equivalent, according to which a gift for the civil servant can be made and to limit the annual quantity of such gifts with the aim of bribery demonstration thickening and avoidance of the great part of protectionism in the legislative and executive authority.
- To implement a compulsory registration of the new corruption actions and shadow economic activity of the subjects of social affairs at the local, regional, and national levels; their publicity in the mass media as well as the working out of the tough sanction system taking into account frequency and difficulty of the law violation toward civil servants and officials.
- To raise the knowledge of citizens according to the corruption and shadow economy demonstration and the criminal responsibility (punishment) for the definite crime commitment.
- To carry out from time to time the civil servants' and officials' training according to the rules and ethic norms of behavior, anticorruption legislation, and effective systems of control and sanctions.
- With the aim of strategic priorities realization of the state policy formation to resist national economy shadow process and society corrupt practice, for assurance of scientific working out of these issues, it is worth to create the department of economic unshadowing and society corruption problems. There should be such tasks as (1) coordination and carrying out of research of the forms, methods and mechanisms of economy shadow sector functioning and corruption development; (2) carrying out of the monitoring of the volume, dynamics, and structural changes of the economy shadow sector and corruption demonstration, definition of its influence on the social and economic situation in the country; and (3) carrying out of the long-term forecasting and working out of managerial and legal recommendations toward the methods of sources localization of the social and economic affair shadow processes, etc. (Gryshova et al. 2017a, b)
- With the aim to increase information and communication (IT) safety: (1) to improve the formation of the means of prevention, detection, delay, and investigation of crimes in the cyberspace, legal responsibility for such crimes and mechanisms of bringing them to justice, regulated by the law; (2) to provide effective hardware and software for detection and prevention of cybercrimes as well as the means of crypto protection of information with the limited access; (3) to create the state services intended to direct resistance of cybercrimes and fulfill the training of the highly qualified specialists in the sphere of cybercrimes resistance with the highest level of their information and technological assurance.

Due to the investigated foreign experience of economy unshadowing of the countries at the level of 5–17% and taking into account the high level of economic affairs shadowing in Ukraine, it is worth, in our opinion, to wait for the reduce of the shadow activity to 7–10% even with the less effect of the mentioned measures.

4.2 *Banking Sphere*

In order to advance the development of the cashless transfers as the key measures of preventing the shadow economy dealings in the financial sector it is necessary to take the following system measures:

- The creation of the mechanisms of information cooperation of the tax authority with monitoring bodies according to the suspicious financial operations.
- Return of costs by the banks of the second level to clients in cases of the illegal use of the noncash resources by swindlers.
- Carrying out measurements on the increase of the level of population knowledge about the existing system of noncash payments and the use of the payment cards together with banks of the second level in the mass media and Internet resources.
- Introduction of amendments to legislation on the assurance of information disclosure according to the ultimate owners of banks and nonbank financial institutions.
- Resistance of the assets flow off to the low-tax countries, the construction of the effective system of return of costs, and assets from abroad, which were received by illegal means, as a result of operations of cost legalization (money laundering) and terrorism financing.
- The improvement of the system of plastic card protection with microchips will be rational in the modern conditions, as it will help to reduce the level of economic cybercrimes greatly, etc.

Due to the fact that Ukraine is the leader among the world states in the sphere of wire fraud, the realization of the mentioned measurements will encourage an essential limit of their demonstration, according to our forecasts up to 10–15%.

4.3 *Tax Sphere*

With the aim to increase the efficiency of the fiscal administration, it is necessary to assure the realization of the following measurements:

- To carry out tax amnesty on the basis of the clear and distinct procedure, which will allow raising the trust of business toward the state and vice versa and increase income to the state budget
- To increase the role of electronic systems in tax administration that will allow reducing physical contact of taxmen with taxpayers and will improve clarity of tax monitoring
- To reduce tax pressure and shorten the quantity of obligatory payments of tax allowances, which will assure equal conditions for all taxpayers and reduce motivation toward decrease of cases of tax obligation minimization
- To reform reduced system, so that it would include only small enterprises and wouldn't be the instrument for financial flow minimization

- To solve the problems of debts according to the return of VAT in order to support export and raise of trust of business toward the state
- To intensify responsibility for the use of shadow tax schemes during business operations and purposeful minimization of tax obligations

Due to the experience and efficiency of these measurements in Germany, they may lead to reduce of about 4–5% of shadow affairs in Ukraine.

In such a way, observation of recommendations of international experts and organizations as well as foreign experience implementation toward economy shadow process is rational upon condition of their analysis, combination, and modelling. Only taking into account evaluation of efficiency and adaptation to Ukrainian reality, these or those recommendations may be implemented, as not all of them are effective.

5 Conclusions

The generalization of the existing measurements of contention with shadow economy development of the leading EU countries allowed distinguishing the following:

First and foremost, it seems that the resistance of economy shadow process is realized at the following levels: national, regional (in terms of union), and international (in terms of international organizations, which include the EU countries). Furthermore, it also appears that the main ways of contention with shadow economy are contention with corruption, changes in tax policy; limit of shadow market of labor power in the EU; contention with black money laundering; and contention with the criminal sector of shadow economy, first of all with the drug industry.

Moreover, it appears that the contention with shadow economy in the EU has a complex character. From the point of view of methods, the resistance of negative aspects of shadow economy is not limited only with sanctions for violation of terms of prohibition (as a great amount of budget assets is necessary for the effective sanction implementation).

Finally, it becomes clear that the main weapon in the EU governments' arsenal in contention with shadow economy is a clear tax, criminal and civil right, high level of payment for labor of civil servants, high quality of state service for population, effective mechanism of citizens' rights and freedom defense before invasion of the state structures, efficient market mechanism, and a high level of competitiveness.

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Developing a Market Strategy of Leadership for Russian HEIs in the Intellectual Service Market



Galina Astratova, Elena Dvoryadkina, and Natalia Vlasova

Abstract The purpose of this paper is to study the theoretical and methodological issues of developing a marketing strategy for university leadership in the market of intellectual services and to develop recommendations for the achievement of leadership of Russian universities in the global market of intellectual services. The study was carried out according to the authors' method, developed on the basis of the phased use of the following known methods: (1) monographic desk research and (2) field research (expert poll survey). Data processing was carried out in the program SPSS and Wortex-31. The authors considered it necessary to regard the problems stated in the article in the context of the study of the following main issues: (1) specificity of intellectual services in the innovation economy, (2) the concept of "leadership" and the strategy of leadership of universities in the market of intellectual services, and (3) marketing strategy of leadership of Russian universities in the market of intellectual services. The results of a long-term study (from 2000 to 2017) are presented, including an expert survey that allowed to (1) reveal the features of intellectual services, (2) position the features-leaders that make up the main content of the category "intellectual services," (3) develop a complex of marketing of intellectual services offered by the university to the market, and (4) recommend Russian universities to implement the strategy of "expanding market share," in which market leaders have the opportunity to increase profits by expanding their market share of intellectual services.

1 Introduction

At the moment, in the Russian Federation, there is a reform of education, in the context of which the government plans, firstly, to build an innovative economy based on knowledge management and, secondly, to ensure the leadership of Russian

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universities in the world market of intellectual services (intellectual services), the key segments of which are educational services and R&D (research and development) services (Zlyvko et al. 2014). Accordingly, one of the most important ways to increase the efficiency of national universities is the development of a marketing strategy that guides universities to achieve intellectual leadership. This strategy must meet the challenges of time, the quality management system of universities, as well as national and global trends, both in the market of intellectual services and the labor market.

Despite the presence of many theoretical studies and practical developments on general strategic management of universities (Aidrus and Filippov 2008; Nelson and Nicholas 2014; Brodzicki 2016), and even on the marketing strategy of universities (Gulicheva and Osipova 2017), however, the number of studies on developing an intellectual leadership strategy of universities is very limited. This has conditioned the scientific interest of European authors to this issue and goal of our research.

The purpose of this work is to study the theoretical and methodological issues of developing a marketing strategy for university leadership in the market of intellectual services and to develop recommendations for the achievement of the leadership of Russian universities in the world market of intellectual services (hereinafter IS).

2 Literature Review

It was regarded necessary to consider the problems stated in the article in the context of the study of the following main issues:

- Specificity of intellectual services in the innovative economy
- The concept of “leadership” and the strategy of leadership of universities in the market of intellectual services
- Marketing strategy of leadership of Russian universities in the market of intellectual services

2.1 *Specificity of Intellectual Services in the Innovative Economy*

It is widely known that the innovative economy (or “innovative economics”) is a special type of economic activity of the society, based on the production and export of high-tech products due to constant technological improvement and the rapid introduction of innovations. Innovative economy also has two major synonyms: (i) intellectual economics and (ii) knowledge economics.

It is also important that in the innovative economy, not only the final product but also the technologies themselves have a very high added value (Zielińska 2016). This is due to the fact that profit is not created in material production (as in the

industrial economy), and not in the process of concentration of capital (financial resources), but in the nonmaterial sphere – by the intellect of scientists, rationalizers, inventors, and innovators and also by the information environment, the database as well as eliciting of users' preferences, and the analysis of the big data (Chiabai et al. 2014; Strielkowski et al. 2016).

It is quite logical that under these conditions new types of activity are being formed, as well as new segments of markets and a new categorical apparatus. This fully applies to the notion of “intellectual services” (IS) and related activities and market niches (Shermerborn 1992).

It should be noted that intellectual services, as well as knowledge in general, are heterogeneous and are divided by national and foreign authors into different types and groups, based on various characteristics: the features of service production, their economic functions, the qualifications of producers, the size and structure of remuneration, etc. Moreover, the IS also includes such an aspect as “production of scientific knowledge,” which implies at least three types of activities: (1) research and experimental development; (2) research activities (work), which includes higher education services; and (3) research and development work. This heterogeneity of IS also leads to difficulties in studying the “knowable” sphere, as a result of which the subject of research of scientists and practitioners is “... not even the whole sector of” knowledge-intensive services “as a whole, but only a part of it – so-called” knowledge intensive business services” – KIBS), intended for consumption by firms.

It is important that at the moment, many professional associations of IS manufacturers in various industries are increasingly considering intellectual activities as related to the services of consulting. Consulting (from the Latin “consultation/consultare” – to consult) is a relatively new type of human activity, which today is connected with many other definitions of consulting, understood as (1) a result, (2) a process, and (3) a special service. Nevertheless, most often when defining consulting and classifying the types of consulting activities, specialists turn to a category device developed by professional communities (e.g., the European Federation of Economic and Management Associations, the Association of Management Consulting Firms, the European Foundation for Management Development, the Association for the Development of Management of Central and Eastern European Countries, the American Marketing Association, the All-Japan Federation of Management Organizations, and others).

As the literature shows, at the present moment in the international practice, the classification of consulting companies is accepted, proceeding from eight grades (Muller and Zenker 1998; Rozdolskaya and Ledovskaya 2014; etc.): (1) consultants on administrative management administration, (2) financial management consultants, (3) personnel consulting, (4) marketing consulting, (5) consultants in the field of production organization, (6) information technology consultant, (7) consulting on general management (management consulting), and (8) special type of consulting – specialized services, i.e., all those that go beyond the mentioned directions.

Accordingly, based on the above and the results of our previous studies (Astratova et al. 2015), it can be concluded that the structure of the IS market is

heterogeneous and, like minimum, consists of three large segments: (1) the market for higher education services, (2) the market for consulting services, and (3) the market for experimental development services (R&D).

2.2 Concept of “Leadership” and the Strategy of Leadership of Universities in the Market of Intellectual Services

The term “leadership” as a scientific category came into the economy from psychology, when Chemers (1997) revealed that leadership is a process of influence within a society through which the leader receives support from other members of the society to achieve a specific goal (Chemers 1997). Later, the debate on leadership was reflected in behavioral, functional, situational, and other theories of leadership, as well as interdisciplinary or integral theory of leadership.

In the economic branches of knowledge, the notion of leadership is multifaceted and implies not only the personal characteristics of a formal and/or informal leader leading the team to implement the specific goals of the organization but also the competitive strategy of the company. It is also important that strategic management as a special kind of activity arose relatively recently, in the 1970s in the USA, as a set of different schools and directions that differently interpret the nature of the strategy and their types. The spread of these ideas to the sphere of higher education services led to the emergence of new interpretations of strategies and strategic planning (Kinnel and Mac Dougall 1997; Lovelock et al. 2009; etc.).

Moreover, the strategies of university leadership have been talked about practically only in the last 15–20 years (Aidrus and Filippov 2008; Nelson and Nicholas 2014; etc.). The issue of university leadership was especially acute in connection with the program of the Ministry of Education and Science of the Russian Federation on the most efficient and successful Russian universities to be led to the global education services market (“5-100-2020”), which, in fact, is a powerful tool for institutional transformation of the entire higher school. At the same time, the promotion of universities in world rankings is primarily due to the development of IS and the achievements of leading scientists, scientific groups, laboratories, and departments (Arkannikova 2014).

2.3 Marketing Strategy of Leadership of Russian Universities in the Market of Intellectual Services

Necessary prerequisites for the development of the marketing strategy for the leadership of a university in the IS market can be a study of the works of domestic and foreign authors who reflected the general issues of building the organization’s strategy (Ansoff, Vikhansky, Koch, Mintzberg, Porter, and others), the formation of

the innovation economy and the knowledge economy (Inozemtsev, Kleiner, Kolesov, Lvov, Polanyi, Popov, Tatarkin, Williams, Schumpeter, and others), improvement of entrepreneurial and innovative activity of universities (Grudzinsky, Zhuravlev, Panich, Yampolsky, and others), marketing in the field of various services (Armstrong, Drucker, Kotler, Lovelock, etc.), and development of an intellectual strategy for leadership of universities (Serbinovsky, Ozdoyeva, and others).

In its most general form, as it is known, the marketing strategy is determined by the position of the company in the market, whether it is a leader, an applicant, and a follower or occupies a certain niche. The market leader holds the largest share of the market for a particular product. In order to strengthen the dominant position, the leader needs to strive to expand the market as a whole, attracting new consumers, finding new ways of consuming, and applying products. To protect its market share, the leader uses various strategies (positional, flank and mobile defense strategies, preemptive strikes and repulsing attacks, forced cuts, etc.). Most market leaders are trying to deprive competitors of the very possibility of going over to the competition. Finally, the leader can try to expand his (her) market segment. Such a strategy is justified if it leads to an increase in profitability, and the associated risk is small (Kotler and Eduardo 1990).

Returning to the strategies on the market of intellectual services, it should be noted that the category “strategy of intellectual leadership” was first proposed and described by Boris Serbinovskiy, who considered SIL as a set of three basic strategies: (1) minimization of costs, (2) the highest quality, and (3) intellectual leadership (Serbinovskiy 1996). The SIL (strategy of intellectual leadership) is a system of measures to achieve individual and collective leadership criteria, and the basis of this system is a worker-leader who has both a desire for leadership and is able to successfully work in a team of mutually complementary leaders. The proposed SIL is combined with the corporate quality strategy, allows the university to meet the criteria of leadership, and promotes the positioning of the university in the IS market according to the international ratings of universities (Academic Ranking of World Universities 2015).

We consider it necessary to note that the developers of the idea of the strategy of intellectual leadership emphasize the leadership of the university as a producer of intellectual services and, accordingly, consider the concepts of “leadership” and “intellectual leadership strategies” from the producer’s point of view, not a consumer of intellectual services and even more so not from the position of harmonizing the interests of the producer and consumer IS, i.e., not from the standpoint of marketing. Moreover, in the literature available to us, we found no research on the problem of developing marketing strategies for university leadership in the market of intellectual services.

3 Methods of Research

The study was carried out according to the authors' method, developed on the basis of the phased use of the following known methods: (1) monographic desk research and (2) field research (expert survey). Here are the tools of this study in more detail.

1. The method of monographic desk research involves the authors' study of available sources of literature:
 - Data of Russian, foreign, and consolidated international statistics in the sphere of the economics of intellectual services
 - Research results of foreign and Russian scientists and practitioners in the field of economics, management, and marketing in the market of higher education services, etc.
2. Field research – an expert survey was regularly conducted on the questionnaire developed by the authors in the period from 2000 to 2017. Experts were scientists and practitioners in the field of science, higher education, and consulting services. The number of people interviewed is 25–35 people annually. Data processing was carried out in the programs SPSS and Wortex-31.

4 Results and Discussion

We also considered the results of the study expedient to consider in accordance with the plan presented in the review of the literature.

4.1 *Specificity of Intellectual Services in the Innovation Economy*

Since the “intellectual service” is a very new category that has not been established in the scientific turnover, it was considered necessary to present the authors' vision on the studied issue.

Firstly, the very term of “intellect” is controversial, especially in the interdisciplinary aspect of the study. In our earlier studies (Astratova et al. 2015), we noted that it is necessary to distinguish between the concepts of “intellect” and “intellectual”. Indeed, in the most general form: (1) intellect is an inalienable property of a person, which is most clearly manifested in the ability of an individual to acquire new knowledge; (2) intellectual is a characteristic, both of human and inanimate objects, which manifests itself in the ability to create new knowledge.

Secondly, based on three basic positions:

- Definition of “service” as “... a type of economic activity that creates value and provides certain benefits to consumers in a particular place and at a particular time, as a result of tangible or intangible actions directed at the recipient of the service or his/her property” (Lovelock 2005).
- Concept of “intellectual” (as an inalienable feature of a person).
- Results of our annual expert survey being conducted from 2000 to the present:
 - It can be assumed that intellectual services are a type of economic activity associated with the process of production and acquisition of new knowledge, based on scientific research and related to consulting as an activity to provide the customer with relevant information and experimental developments of interest to him as a work aimed at production and/or improvement of new goods or services, introduction of new processes and technologies, etc.

It should be noted that as a result of the expert survey, ten main attributes that characterize the specificity of IS content were identified (Fig. 1). The data used in Fig. 1 come for the year of 2016, where N is the total number of respondents, n is the number of respondents who answered all questions, and W is the coefficient of concordation or the degree of consistency of expert opinions on the importance of each of the parameters being evaluated.

Among the features-leaders that make up the main content of the category “intellectual services,” two key characteristics can be distinguished: (1) science and intellectual capacity (4.84 points within the 5-point system, where 5 is the max value and 1 is the min value) and (2) high individuality, personalization of labor in the provision of IS (4.70 points). These IS features are unique and distinguish this type of service from other types of services.

4.2 The Concept of “Leadership” and the Strategy of Leadership of Universities in the Market of Intellectual Services

An analysis of the literature allows concluding that, as applied to HEIs, leadership in modern conditions should be assessed not only by the quality of educational services, the results of scientific research, and the effectiveness of staff. Since the university today is an economic entity in the market of intellectual services, its effectiveness and leadership should be evaluated not only by intangible characteristics but also by economic evaluation of its activities (e.g., the introduction of a balanced scorecard or KPI – key performance indicators). In other words, we believe that a university today may be the university that occupies the maximum share of sales in the IS market while having minimal costs (or at least at the level of average market costs for the production and sale of IS). Accordingly, the strategy of university leadership should be based on the prospect of obtaining the maximum profitability from the production and sale of IS.

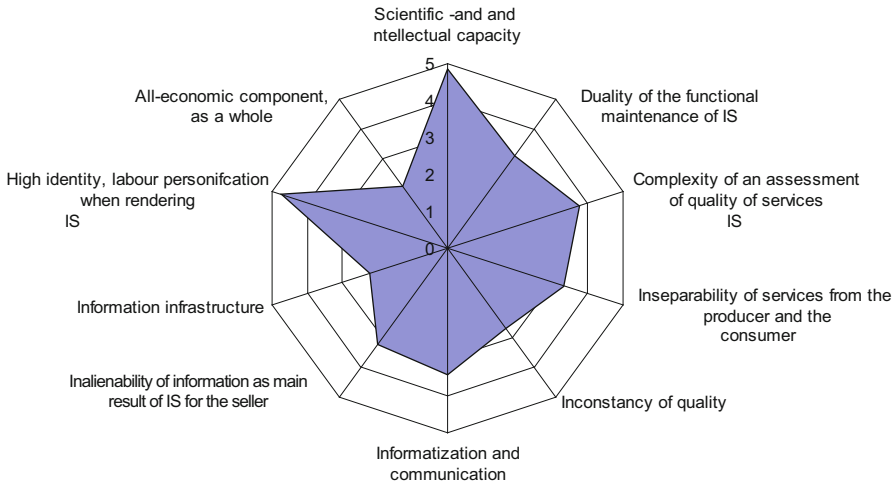


Fig. 1 Positioning of features-leaders that make up the main content of the category “intellectual services,” according to the results of the expert survey ($N = 30$; $n = 30$; $W = 0.77$) (Source: research results of the authors)

We expect that the development and implementation of such a leadership strategy will meet psychological resistance from teachers and university staff. However, in some time this situation will change. In favor of this thesis is also the fact that the introduction of an “effective contract,” despite the initial resistance, already has positive results in terms of achieving high academic and commercial performance by universities. Other authors have similar positions on this issue.

4.3 Marketing Strategy of Leadership of Russian Universities in the Market of Intellectual Services

Since the marketing mix is the key marketing tool, or the coordination of the interests of the producer and consumer, we considered it necessary to recommend the development of a marketing mix when creating and implementing a marketing strategy for the leadership of Russian universities in the IS market.

The works of marketers (Lovelock 2005; Kotler and Eduardo 1990; Lovelock et al. 2009; etc.) state that if the classic marketing mix has four elements – the product, price, promotion, and place – then in relation to services, complex marketing can have five, six, seven, and much more elements. Our long-term studies, including the expert survey, show that six components are optimal for the IS marketing complex product, price, promotion, place, people, and profit. The results of the expert survey also showed that when developing a marketing strategy for leadership, it is optimal to use the strategy of “market share expansion” in which market leaders have the opportunity to increase profits by expanding their market share of IS.

5 Conclusions

Our paper investigated the theoretical and methodological issues of developing a marketing strategy for university leadership in the market of intellectual services and recommendations for the achievement of leadership of Russian universities in the global market of intellectual services.

The study was carried out according to the authors' method, developed on the basis of the phased use of the following known methods: (1) monographic desk research and (2) field research (expert survey).

The problems discussed in the article were considered in the context of the study of theory and practice of the following main issues: (1) specificity of intellectual services in the innovative economy, (2) the concept of "leadership" and the strategy of leadership of universities in the market of intellectual services, and (3) marketing strategy of leadership of Russian universities in the market of intellectual services.

The results of a long-term study (from 2000 to 2017) are presented, including an expert survey that allowed (1) to reveal the features of intellectual services, (2) to position the features-leaders that make up the main content of the category "intellectual services", (3) to develop a complex of marketing of intellectual services offered by the university to the market, and (4) to recommend to Russian universities the strategy of "expanding market share," in which market leaders have the opportunity to increase profits by expanding their market share of intellectual services. Our research is not finished, and will be continued in the nearest future, since there are many pathways related to this interesting topic that would and should be developed further on.

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Regional Trade Flows and the Leading Position of Regions in the Context of Economic Security



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Abstract This paper is devoted to the research of the region's competitiveness in the direction of determining its leading positions among other regions with the aim of determining the permissible scope of regional foreign trade flows in terms of economic security of the country. For conducting the analysis of regional export-import flows, regional trade indicators and their thresholds were introduced and considered. The economic-mathematical model of quantitative analysis of risk and discovering the boundary limits of foreign trade flows of the region are worked out. The foreign trade flows of the regional leader – Ivano-Frankivsk region of the Carpathian region – on the basis of two-dimensional normal distribution were designed, and the level of the threshold values of the indicators of foreign trade operations of the region from the point of view of economic risk was determined. The method of building an ellipse of scattering of foreign trade operations of the region – the region of regional foreign trade flows concerning the leading position of the region in the context of economic security for a comparative assessment of the competitiveness and economic security of the regions – is generalized.

1 Introduction

The analysis of socioeconomic processes that took place in Ukraine during the last decade, including foreign economic activity, allows us to conclude that the further development of the country in many respects will depend on the coherence of trends of domestic economic development with the world one. For example, the introduction of import quotas is not always an incentive for improving the quality and

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competitiveness of domestic products, increasing the scale of its production (Balitskiy et al. 2016; Štreimikienė et al. 2016). There are other large-scale economic, financial, and technical measures, whose implementation involves accumulation of financial resources in the hands of the state in order to facilitate the solution of these problems. Otherwise, the country will in the hands face again commodity deficits and inflation. Moreover, the use of import controls should be approached with caution; in each case a thorough analysis of the possibilities of domestic production to replace foreign products with qualitative parameters should be made. At the same time, it is necessary to pay attention to the promotion of the development of export industries that can replenish the country's foreign exchange revenues necessary for the restoration and reproduction of its scientific and production potential (Janda et al. 2013; Cieřlik et al. 2016; Moyseyenko and Ryvak 2016). The low level of regional export flows is reflected in the ineffective structure of foreign economic relations. In particular, there is an advantage of raw, low-tech exports over high-tech. It should be noted that increasing the efficiency of regulation of export-import flows must be consistently combined with the tasks of structural adjustment of the national economy (Brodzicki 2016). For example, each region has a potential opportunity to reduce to some extent the volume of imported supplies by means of stimulating the development of its own production on an innovative basis, creating new jobs, reducing the flow of foreign currency payments abroad, and increasing the revenues of budgets of all levels of government (Niño-Amézquita et al. 2017). This is achieved through the formulation and implementation of an import substitution policy.

The regional socioeconomic systems belong to the class of complex dynamic systems. The development of the forecast scenario for the development of the region is the subject of system analysis, and it involves the use of a whole set of models, whose structure and class are transformed in the course of research. Consequently, the problem of reproduction of the regional economy and management of socioeconomic development of the region and the development and analysis of system models describing the dynamics of socioeconomic systems and modeling the economic risk for assessing the level of economic security of the regions is vital (Gryshova et al. 2017a).

The development of the economy of Ukraine at the present stage is aimed at modernizing the economy taking into account the current world trends and improving the efficiency of foreign trade activities. The international exchange of goods (services) can be advantageous for all participants of foreign economic relations, in conditions of a balanced structure of exports and imports. A special role in the development of transborder relations, in particular, belongs to the largest cross-border institutions in Europe, the interregional association "Carpathian Euroregion" (created on February 14, 1993, with the participation of the border regions of Ukraine, Poland, Slovakia, Hungary, and Romania), as well as Euroregions "Bug" and "Danube." The activities of these institutions correspond to the principles of the European Framework Convention on Transfrontier Co-operation between the administrative-territorial units and the authorities. However, the underestimation of

the opportunities created for cross-border institutions in Ukraine does not allow the international experience in this area to be fully adapted.

It is known that the risks that arise in the foreign trade flows of the region are related to the size of exports and imports, domestic prices, changes in the rates of national currencies, interest rates, aggregate demand and GDP, and employment levels and, in general, affect the macroeconomic equilibrium. In this case, the threshold values for individual indicators are used.

Therefore, the problems of studying the modeling of the risk of foreign trade flows of the region became a priority, and new approaches to the studying of the area of the economic risk of the foreign trade flows of the region appeared due to the fact that it is necessary to determine the leading position of the region as indicative one for determining the permissible area of regional foreign trade flows (the area of threshold values) to ensure economic security.

At the same time, taking into account the complexity of the process of export-import flows of the region, the issue of studying the risk of foreign trade in regional flows is not sufficiently studied, which plays a significant role in the problem of regional economic recovery and management of socioeconomic development of the region. A prerequisite for successful export-import operations is the analysis of the effectiveness of export-import flows in order to establish the most optimal export structure and make substantiated decisions in the field of management, provided that the regional leading position is determined.

2 Literature Review

The theoretical basis of these provisions was first formulated at the beginning of the nineteenth century by the English economist David Ricardo and is the basis for assessing the economic efficiency of foreign trade (Dixon 2008).

We note that a number of publications in which the authors examine economic risks, give their classification and analysis, and suggest the methods for quantifying economic risk and mechanisms for implementing various strategies are devoted to solving the problems of risk assessment in the management of economic risks in the regions.

Estimating the level of economic risk of export-import flows of the region is one of the most important stages of risk-taking in foreign economic activity. In this context, scientists distinguish the following approaches.

Some authors (e.g., Delbaen and Haezendonck 1987) emphasize that the sources of economic risk are uncertainty, conflict, and the availability of alternatives to economic decisions based on a system of hypotheses due to the lack of reliable information.

According to Fekete (2012), the degree of risk also depends on the attitude to risk of the subject of decision-making. Therefore, all factors of risk are divided into objective and subjective (Fekete 2012).

Among the economic risks of the region's export and import operations, currency risks as the threat of losses resulting from changes in the exchange rates during the execution of a contract arise when prices change over the currency of payment between the signing of a foreign trade or credit contract and the payment for it. According to Slavyanskaya (2003), if the currency of the price and the currency of payment do not coincide, the exporter suffers losses when the currency rate is lowered in relation to the currency of payment, as it receives a lower monetary equivalent of the value recorded in the contract. The currency risk for a creditor will be similar. On the contrary, for the importer and the debtor, currency risks arise when the exchange rate increases with respect to the currency of payment, since it is necessary to pay more national currency for its purchase. In the case of coincidence, the currency of the price and the currency of payment, the currency risk of the exporter arises when the currency of contract devaluates in relation to its national currency. On the contrary, an importer suffers losses if the currency of contract revaluates relatively to its national currency (Slavyanskaya 2003).

According to Kai-Li and Barrett (2007), from the view of international trade, the risk of export-import operations is the risk of losses due to the other party's fault or because of a change in the political, economic, or other situations in the partner's country (Kai-Li and Barrett 2007).

It is known that any of its participants – an exporter, importer, or a service bank – can suffer any losses in foreign economic activity. Therefore, according to V. Heyts, it is important to know all types of risks that arise in the process of international commodity exchange, as well as measures that enable these risks to be minimized or eliminated at all (Gaytsa 2006).

Regarding the choice of the system of indicators for assessing the level of economic risk of the region, in the economic literature, various views prevail. For example, Grigoreva and Fesina (2013) consider the subsystems of indicators of economic, social, innovation, foreign economic, and institutional development (Grigoreva and Fesina 2013). In our opinion, today there is a well-known range of indicators for assessing the level of economic risk of foreign trade operations in the region, but their thresholds have not been investigated and are not determined.

One can see that the approximation of the values of the indicator to the maximum allowable value indicates an increase in threats and the excess of threshold values – about entering the zone of instability and social conflicts.

The opinion that the complex of indicators should be within the limits of their threshold values (the threshold values of one indicator are achieved not to the detriment of others) is emphasized by Pilko (2013).

The method of estimating the impact of export trade on the state of economic security of Ukraine is systematically represented by Ventskovsky, who considers fully the indicators of foreign trade security, among which the main factor is occupied by the coefficients of coverage of imports by exports of export and import dependence (Ventskovsky 2009).

It should be noted that a number of publications are devoted to solving the problems of evaluation and management of economic security of the state, and of the regions as well, in which the authors investigate the threats to economic security,

give their classification and analysis, and offer methods for quantitative assessment of economic security and mechanisms for implementing its strategy.

Summarizing different methods to determine the level of foreign trade safety of regions, it can be concluded that at present, the subject of scientific research regarding the location of threshold values of the two indicators has not been studied. As Klimchik (2012) emphasizes: “The foreign-economic security of the region has been scarcely studied in Ukraine, some scholars are studying its components, and there is no comprehensive analysis of the state of foreign economic security” (Klimchik 2012).

Consequently, the economic literature mainly considers threshold values only for each individual indicator. Our proposed approach allows us to consider the interconnection between the two indicators of the region-leader and determine their coherent range of threshold values, which makes it possible to compare the indicators of other regions in terms of their values in the specified area.

3 The Purpose and Methods

The purpose of the article is to justify and study the area of the economic risk of the foreign trade flows of the region with the implementation of the algorithm for forming the permissible area of regional foreign trade flows in relation to the leading position of the region in the context of economic security: the development of methodological support for measuring foreign trade security indicators, comparing them with threshold values, and using quantitative parameters for scientific support of making managerial decisions.

In the process of research implementation, the following methods were used: statistical and analytical analysis (in the analysis of the main aspects of the formation of foreign trade flows of the region) (Anderson 2003), factor analysis (when analyzing the structure of regional foreign trade flows in Ukraine), economic-mathematical modeling (when creating a model of two-dimensional normal distribution of regional foreign trade flows), and probabilistic-statistical methods of analysis (for assessing the threats to the region’s economic security, conditioned by the formalization of the uncertainty of activities of regional foreign trade flows).

4 Results and Discussions

The key task of the state regional policy of Ukraine in today’s conditions, on which all regions need to be guided in their development, is the reduction of interregional economic and social disproportions. In this regard, it is necessary to have a systematic tool for diagnosing the level of economic security of the regions and a mechanism of overcoming negative phenomena at different stages of their development.

Table 1 The indicators of regional export-import flows

The name of the coefficient	Formula	Threshold value of the coefficient
The coefficient of coverage of imports by exports in the region	$K_R = \frac{EX_R}{IM_R}$	$K_R > 1$
The coefficient of export regional dependency	$L^R_{\text{exs}} = \frac{EX_R}{GRP}$	$L^R_{\text{exs}} > 0, 5$
The coefficient of import regional dependency	$L^R_{\text{ims}} = \frac{IM_R}{GRP}$	$L^R_{\text{ims}} > 0, 5$

Source: Ventskovsky (2009)

Therefore, there is a need to define a system of indicators, to search for an information base and formalize the calculation of indicators, to determine the area of the threshold values of foreign trade activity, to evaluate the indicators in terms of their compliance with the threshold values, and to provide general recommendations for improving the level of economic security of the regions.

For a further development of foreign economic activity of the regions of the country and the improvement of the structure of export-import flows, as one of the components of economic security of the regions, the indicators of export-import flows of regions and their thresholds are proposed.

Table 1 presents the threshold values for indicators of regional export-import flows and uses the following notations: GRP (gross regional product), GDP (gross domestic product), EX_R (total export of the region), and IM_R (total import of the region). It should be noted that in the regions with high GRP per capita, as a rule, the indicators of export orientation of the economy are high, which confirms the hypothesis about the importance of exports as a factor in the socioeconomic development of the regions of Ukraine in the modern period.

In economic literature, the main problems of foreign economic activity of the Carpathian region are singled out:

1. Imperfect legal and regulatory framework of foreign economic activity
2. The absence of a national export strategy
3. Insufficient level of access of local producers to foreign markets
4. Untimely reimbursement of value-added tax to business entities
5. The necessity of registration of a promissory note when importing to the customs territory of Ukraine the customer's raw materials of a foreign customer
6. The lack of legal basis for the introduction of financial mechanisms of state support for export development

At the same time, let us mention the main tasks of the foreign economic activity of the Carpathian region, which are (Klimchik 2012):

1. The creation of favorable conditions for the economic entities in the implementation of foreign economic activity, increasing the export potential of the region
2. The promotion of the region abroad and acquaintance with its export potential during international exhibition-fair events

3. Informative support of the subjects of entrepreneurship of the region regarding the possibilities of foreign trade operations, access to the world markets, and strengthening the expansion of foreign economic relations
4. The organization of activities in the region aimed at facilitating the establishment of new business contacts and implementation of joint projects by foreign economic subjects
5. The assistance in the promotion of local products to the domestic, European, and world markets
6. The activation and establishment of interregional cooperation (Gryshova et al. 2017a, b)

Therefore, the task in the future is to continue increasing the export potential of the Carpathian region, which is possible due to the rational harmonization of legislation; political stability; technological development; increase of the efficiency of the industrial production by improving the quality of products, studying the dynamics and structure of the demand, comparing the prices for goods with the prices of competitive companies, improving the functioning of the customs, and providing advice to the subjects of foreign economic activity; the continuation and improvement of various forms of trade and economic cooperation; receipts of foreign investments; organizing joint ventures; and the support of the effective domestic producers by improving the international legal mechanism of protecting their interests, including through the conclusion of appropriate contracts (Sinai 1992; Bilchuk 2008; Gryshova et al. 2017; Gryshova and Shestakovska 2017).

Table 2 shows the regions of the Carpathian region (Lviv, Ivano-Frankivsk, Transcarpathian, and Chernivtsi regions) for which the indicators of regional export-import flows have a minimum and maximum value for the period 2014–2016.

Recently, the disproportions in regional development are exacerbated, which is a consequence of reflecting the competitiveness of the regions in ever-changing conditions. From Table 2, the leading position of the Ivano-Frankivsk region of the Carpathian region of Ukraine is distinguished by the quantitative signs of the maximum value of the indicators.

Let us consider the system of two compatible random variables X and Y of regional export-import flows. The random variable X is statistically determined as the ratio of export of the region (EX_R) to its gross regional product (GRP): $L_{exs}^R = \frac{EX_R}{GRP}$. Similarly, the random variable Y is statistically determined as the ratio of region's imports (IM_R) to the GRP: $L_{ims}^R = \frac{IM_R}{GRP}$.

Note that the values of X and Y are dimensionless and do not depend on the inflation rate. We have a sample of the general population (X ; Y) for the Ivano-Frankivsk region, containing 36 values (for 2014–2016), which are presented in Table 3.

We find the sample mean and rms deviations and test the hypothesis of a normal law for the distribution of general totalities X and Y with a significance level $\alpha = 0.05$, using the Pearson consistency criterion (Mityrayeva 2008). From the

Table 2 Indicators of regional export-import flows have a minimum and maximum value for the period 2014–2016

The coefficient of coverage of imports by export K	The area that falls into the range		
	2014	2015	2016
Min K	Lviv $K = 0.39$	Lviv $K = 0.39$	Lviv $K = 0.48$
Max K	Ivano-Frankivsk $K = 0.99$	Ivano-Frankivsk $K = 1.41$	Chernivtsi $K = 0.92$
The coefficient of export regional dependency	The area that falls into the range		
	2014	2015	2016
Min	Chernivtsi 0.39	Chernivtsi 0.11	Chernivtsi 0.08
Max	Transcarpathian 0.48	Transcarpathian 0.58	Transcarpathian 0.6
The coefficient of import regional dependence	The area that falls into the range		
	2014	2015	2016
Min	Lviv 0.39	Lviv 0.39	Lviv 0.48
Max	Ivano-Frankivsk 0.99	Ivano-Frankivsk 1.41	Chernivtsi 0.92

Source: Ministry of Economic Development and Trade of Ukraine (2013)

Table 3 A sample from the general totality (X; Y) for the Ivano-Frankivsk region for 2014–2016

$X = x_i$	0.34	0.36	0.34	0.31	0.31	0.17	0.31	0.31	0.22	0.32	0.48	0.32
$Y = y_i$	0.48	0.55	0.51	0.45	0.47	0.37	0.37	0.35	0.24	0.43	0.5	0.38
$X = x_i$	0.3	0.32	0.28	0.26	0.33	0.27	0.32	0.32	0.31	0.36	0.35	0.52
$Y = y_i$	0.3	0.34	0.58	0.4	0.39	0.35	0.4	0.35	0.42	0.39	0.41	0.4
$X = x_i$	0.31	0.36	0.39	0.38	0.33	0.42	0.38	0.39	0.3	0.36	0.37	0.38
$Y = y_i$	0.22	0.22	0.26	0.27	0.3	0.28	0.33	0.3	0.18	0.35	0.34	0.37

Source: Ministry of Economic Development and Trade of Ukraine (2013)

table of critical points of distribution χ^2 , according to the significance level $\alpha = 0.05$ and the number of degrees of freedom $k = 10 - 3 = 7$, we find $\chi^2_{кр}(0,05; 7) = 14.1$.

We emphasize that for both quantities X and Y: $\chi^2_{сн} < \chi^2_{кр}$. Therefore, for both X and Y, the hypothesis of a normal law of distribution is adopted. Since for the normally distributed two-dimensional random variable the concept of independence and non-correlation of its constituents is equivalent, we check the hypothesis that the general correlation coefficient is zero. Moreover, we can calculate the sample coefficient of correlation (State Statistics Service of Ukraine 2016). Table 3 shows the critical points of student distribution, and by the level of significance $\alpha = 0.05$

and the number of degrees of freedom $k = n - 2 = 34$, we find the critical point. Since $Tan < Tkr$, then there are no grounds for rejecting the hypothesis that the general correlation coefficient is zero.

Consequently, if $r_{xy} = 0$, a two-dimensional differential function of normal distribution which has the form as specified in Shirayev (1984), in space, O_{xyz} , the differential function $z = f(x, y)$ (1) of a normal distribution is depicted by a surface. Thus, in order to monitor the indicators of foreign trade activity in the Ivano-Frankivsk region, the region of permissible risk of export-import operations of the region-leader is found: the ellipse region.

It is worth noting that for other regions of the Carpathian region, it is possible to find the probability of hitting (X, Y) in the main ellipse of scattering, which can be taken to assess the permissible risk of their foreign trade flows from the point of view of economic security of the state.

Consequently, the area of the permissible risk of export-import flows of the region is established, which is determined by the ellipse of diffusion in two-dimensional normal law of the system of random quantities of export-import flows of the region, and is a criterion for the abovementioned problems of import substitution and increase of export potential of the region. In this case, adverse events will be only those in which the values of indicators of export-import flows of the region do not fall into the established area of a permissible risk.

Note that informational and consulting assistance for exports includes the formation of a data bank for foreign trade information available through the Internet, the provision of information and consulting services, and the assistance in finding business partners. One of the main reasons for a significant reduction in exports of Ukrainian products is the lack of information: overseas, about the export opportunities of the Ukrainian enterprises, and in Ukraine, about the demand for their products and services abroad. In addition, the approach to Ukrainian enterprises that participate in international competitions and tenders is not always an objective one, which is often due to a lack of information about the business reputation and the ability of Ukrainian companies participating in foreign economic activity.

Our paper presents an algorithm for forming the permissible area of regional foreign trade flows as to the leading position of the region in the context of economic security. For the integrated solution of the tasks of informational support for the promotion of Ukrainian goods and services to foreign markets, measures are needed to collect and analyze export offers, applications, and tenders from Ukrainian enterprises and foreign consumers, as well as to reduce the precontractual costs of Ukrainian exporters.

In order to ensure the coordination of the activities of ministries, departments, and industry associations of entrepreneurs in the field of support of the export of products of manufacturing industry, it is advisable to create permanent working groups in the regions that promote the export activity of Ukrainian firms.

5 Conclusions

Each region of Ukraine is both an exporter and an importer of different types of products and carries out its export-import activity with varying degrees of efficiency, and it also depends on others in its economic development and cannot exist separately. The economic development of all regions of Ukraine is interconnected. Note that the risks of foreign trade operations in the region are related to the size of exports and imports, domestic prices, changes in national currency rates, interest rates, aggregate demand and GDP, employment levels, and overall macroeconomic equilibrium.

Therefore, one of the most important aspects is the development of a scientifically sound regional export-import policy and ensuring its effective implementation, since this aspect of foreign economic activity has the greatest impact on solving the key internal economic problems: the improvement of the structure of economic development, radical modernization and renewal of production capacities, development and introduction into production of achievements of scientific and technological progress, and improvement of the organization of management.

The effective regional export-import policy should consist in achieving a positive trade balance by creating an innovative economy, more targeting it on the domestic market and reducing on this basis the dependence of the region's economy on negative external economic factors.

Thus, the methodological provisions for the construction of scattering ellipses are developed – the area of permissible risk of foreign trade flows of the region for comparative assessment of the risk of competitiveness and economic security of the regions. Consequently, by constructing diffuse ellipses for the regions with different types of development, which will be the areas of the thresholds of these indicators, it will be possible to make a comparative assessment of the competitiveness and economic security of the regions with the orientation on the region-leader.

This will allow to make a systematic analysis of the region's economic development and take measures both at the local level and at the state level in order to neutralize a number of threats to its economic security. Assessing the level of the economic risk of the export-import flows of the region by determining the admissible area is one of the most important stages of risk-taking in foreign economic activity, which will allow to make the necessary monitoring, systematically analyze the dynamically changing economic situation, and make scientifically grounded management decisions.

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Leadership and Firm Size: Evidence from an Empirical Relationship in Czech Companies



Mihaela Simionescu and Lucian-Liviu Albu

Abstract This paper analyzes the relationship between leadership and the dimension of a company. The empirical study is based on data from 438 firms from the Czech Republic, the answers to questionnaires being provided by the managers of the firms. The results indicated significant differences in the managers' opinions regarding the perception on leadership. Most of the managers in the sample considered professional knowledge as the most important feature of a successful leader. There are significant differences between managers regarding their opinion of the most important characteristic of a good leader. Almost half of the self-employed managers considered this characteristic as determinant for a good leader. Perseverance is considered the most important feature of a leader for most of the managers from microenterprise, small company, and medium-sized enterprise. Most of the managers of large companies indicated professional knowledge as determinant for a leader.

1 Introduction

Management competency is strongly related to the performance and development of an organization. The differences between management and leadership were noticed by Zaleznik (1977) and Kotter (1990). In this context, we should emphasize that leadership competencies are mostly focused on the qualities of the people engaged in a certain job rather than on technical duties.

The debate in literature focuses on an ethical and unethical leadership, but we will take into account only the ethical perspective of leadership. The theoretical approach

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from literature comes with various characterizations of the leader qualities as person or in his/her relationship with the followers. All these characteristics help the company to achieve its strategic goals (Simionescu et al. 2017; Simionescu and Strielkowski 2017). Our study does not stop to the theoretical approach, because an empirical evaluation of leaders' competences is made by the managers of the companies starting from the theoretical perceptions of experts made in literature (Varanavicius et al. 2017). In this context, we consider it necessary to propose some competencies of a leader that are critically assessed by some managers from the Czech Republic in 2016. The qualities of a leader we proposed are professional knowledge, perseverance, not afraid of risk, activity, intelligence, creativity, innovativeness, responsibility, optimism, quality of education, decisiveness, aggressiveness, and autonomy (Hosfovecký and Poláček 2016). The managers had to choose the most important characteristics of a leader. We also check for differences between managers opinions according to the size of firms. After this introduction, the paper presents a short literature review on leader's competences (Belas et al. 2015; Moskalenko and Yevsieieva 2015; Kozubikova et al. 2015). The next sections describe the methods and the results. Last part concludes our paper and summarizes its main results and findings.

2 Literature Review

Leadership is seen by Pondy (1978) as "language game," while Conger (1991), Fairhurst and Sarr (1996), and Fairhurst (2005) focus on the importance of rhetoric and "framing." The leadership definition comprised many changes in time. If in the 1920s leadership was defined as the ability to impose the will and induce cooperation, respect, obedience, and loyalty to those led, since the 1990s, leadership is seen as a relationship of influence between the leader and those led in order to realize a real change related to the mutual purposes (Chvátalová 2016; Shvedovsky et al. 2016; Antonakis 2017) (Economic and social institutions: modelling the evolution paths for the archaic society. *Economics & Sociology* 9(2):137–147. <https://doi.org/10.14254/2071-789x.2016/9-2/9>). If at the beginning the leader focused on his ability to impress the people, in the actual framework, the leader and the followers influence each other. In the complex settings of an organization, leadership is described by Denis et al. (2012) as a plural phenomenon. Even if there is a differentiation among people with respect to preferences, position, and skills, Gronn (2009) and Janda et al. (2013) show that more individuals are mobilized to achieve some collective goals. This means that leadership is at least partially distributed (Bolden 2011; Mailhot et al. 2016) or shared (Pearce and Conger 2003). There are plenty areas in which leadership can be studied, including industry, technology, or energy (Strielkowski and Bilan 2016).

Buckingham (2001) considers that leadership competencies promote conformity more than diversity. The competences of a good leader rely on more assumptions:

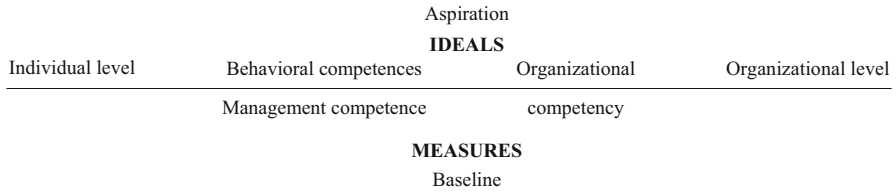


Fig. 1 The concepts of competences (Source: Bolden and Gosling 2006)

- People with the same role act in the same way.
- These people behaviors could be learnt.
- The improvement of the weaknesses ensures the success in their job.

The different concepts related to competences are widely described by Bolden and Gosling (2006) (Fig. 1).

Buckingham (2001) promotes the companies’ efforts to help the individuals in developing their strengths and differences, focusing more on results than on behaviors. Similar studies in literature like those of Hunt and Laing (1997) and McCall (1998) emphasize the success of the leader despite important personal flaws.

Beside this individual approach of describing leader qualities, other studies focused on the organizational level (Koudelková and Svobodová 2014). For example, Salaman (2004) identifies four characteristics of the leader competencies. Firstly, the framework of competencies follows the measurement, control, comparison, and regulation of the managers’ behaviors. Secondly, the competencies ask for a complete translation made from strategy to organization and to individual manager. Thirdly, a description of the competencies is also necessary for future improvements. Finally, managers are asked to assume more responsibilities by the transfer of tasks from human resource experts to individual employee. In the vision of Salaman (2004), leadership could not be dissociated from the situational and temporal context. Issues related to culture and organizational system might prevent the leader for achieving his/her goals in the company. If the social context of leadership is not understood, the significant role of other factors is neglected (organizational system followers, cultural environment, managerial rewards and sanctions, opinions on legitimate authority, work nature). Leadership acts in situation and could not be divided into a number of components (Bolden et al. 2006; Wood 2005).

The approach based on competencies is important for an organization from two reasons provided by Miller et al. (2001): support the increase the employees’ performance by training and other human resources practices and support the corporate objectives and values.

Our research is in line with the actual trends in the literature that made the migration from the theoretical description of a charismatic leader to empirical description based on the observation of leader behaviors (Antonakis 2017). A good leader should be an effective and ethical person (Ciulla 2014). There are cases when the moral failures of a leader are normative and cases when they are cognitive, but Prince (2016) considers the moral failures of leader as non-intentional.

On the other hand, Johnson (2017) considers that leadership might be ethical or unethical. The unethical leadership might be observed in various contexts: hoard privileges, power abuse, inconsistency in acts, mismanaged information, lack of responsibilities achievement, betray, or misplace loyalties (Johnson 2017).

There are four dimensions for defining the ethical perspective of leadership (Antonakis 2017):

- The ethics of the leader seen as person (discipline, self-knowledge, intentions, etc.)
- The ethics in the relationship between the leader and followers (how the leader and follower treat each other)
- The ethics of leadership seen as process (participation, control, command)
- The ethics of the acts of the leader (what he/she does nor not)

Keeping in mind these characteristics, in this study we will focus on qualities related to leader as person and their acts.

Moreover, we will focus on aspect related to innovativeness, an important characteristic that is linked to leadership by Johnston and Marshall (2016). The education has an essential role in developing the leadership abilities. Komives and Wagner (2016) consider that one of the most important goals of the students should be leadership, even if professors assigned more significance to their students' ability to develop a critical thinking. The same idea is supported by Shapiro and Stefkovich (2016) who recommend a leadership style in education based on connections and relationships. Cashman (2017) considers that a sustainable leadership should be based on authenticity.

3 Results and Discussion

This paper attempts to find evidence for the existence of the relationship between leadership and the firm's size. We used a sample of 438 managers from Czech companies that were randomly selected and asked to select the most important quality that a good leader should have. The managers belong to companies of different sizes: self-employed, microenterprise, small company, medium-sized enterprise, and large enterprise. The questionnaires were applied in 2016. Most of the managers in the sample considered professional knowledge as the most important feature of a successful leader.

The methods used in this research consist in the use of nonparametric tests under the assumption that we do not assume a normal distribution of the data in the sample. These tests allow us to check between differences in opinions, working with a level of significance of 5%.

Our results show that 38.7% of the managers that considered professional knowledge as the most important quality of a leader are from microenterprise, while 31.6% of them are self-employed. Around 43.8% of the self-employed managers (almost half of them) selected professional knowledge. About 44.9% of the managers that

Table 1 The repartition of leader's qualities according to manager's firm size

Qualities	Firm size							Total
	Self-employed	Microenterprise	Small company	Medium-sized enterprise	Large enterprise			
Professional knowledge	Count	60	29	11	6	155		
	% within qualities	38.7%	18.7%	7.1%	3.9%	100.0%		
	% within firm size	43.8%	34.3%	37.9%	22.2%	35.4%		
	% of total	11.2%	13.7%	2.5%	1.4%	35.4%		
Perseverance	Count	62	31	10	3	138		
	% within qualities	44.9%	22.5%	7.2%	2.2%	100.0%		
	% within firm size	28.6%	35.4%	34.5%	11.1%	31.5%		
	% of total	7.3%	14.2%	2.3%	0.7%	31.5%		
Not afraid of risk	Count	17	10	1	2	42		
	% within qualities	40.5%	23.8%	2.4%	4.8%	100.0%		
	% within firm size	10.7%	9.7%	10.5%	7.4%	9.6%		
	% of total	2.7%	3.9%	2.3%	0.5%	9.6%		
Activity	Count	11	4	0	2	23		
	% within qualities	47.8%	17.4%	0.0%	8.7%	100.0%		
	% within firm size	5.4%	6.3%	0.0%	7.4%	5.3%		
	% of total	1.4%	2.5%	0.0%	0.5%	5.3%		

(continued)

Table 1 (continued)

		Firm size							Total
		Self-employed	Microenterprise	Small company	Medium-sized enterprise	Large enterprise			
Intelligence	Count	1	4	5	2	3	15		
	% within qualities	6.7%	26.7%	33.3%	13.3%	20.0%	100.0%		
	% within firm size	0.9%	2.3%	5.3%	6.9%	11.1%	3.4%		
	% of total	0.2%	0.9%	1.1%	0.5%	0.7%	3.4%		
Creativity	Count	10	15	7	1	3	36		
	% within qualities	27.8%	41.7%	19.4%	2.8%	8.3%	100.0%		
	% within firm size	8.9%	8.6%	7.4%	3.4%	11.1%	8.2%		
	% of total	2.3%	3.4%	1.6%	0.2%	0.7%	8.2%		
Innovativeness	Count	0	0	1	0	0	1		
	% within qualities	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%		
	% within firm size	0.0%	0.0%	1.1%	0.0%	0.0%	0.2%		
	% of total	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%		
Responsibility	Count	1	2	1	0	3	7		
	% within qualities	14.3%	28.6%	14.3%	0.0%	42.9%	100.0%		
	% within firm size	0.9%	1.1%	1.1%	0.0%	11.1%	1.6%		
	% of total	0.2%	0.5%	0.2%	0.0%	0.7%	1.6%		

Optimism	Count	0	1	0	3	1	5
	% within qualities	0.0%	20.0%	0.0%	60.0%	20.0%	100.0%
	% within firm size	0.0%	0.6%	0.0%	10.3%	3.7%	1.1%
	% of total	0.0%	0.2%	0.0%	0.7%	0.2%	1.1%
Quality of education	Count	0	1	4	0	2	7
	% within qualities	0.0%	14.3%	57.1%	0.0%	28.6%	100.0%
	% within firm size	0.0%	0.6%	4.2%	0.0%	7.4%	1.6%
	% of total	0.0%	0.2%	0.9%	0.0%	0.5%	1.6%
Decisiveness	Count	1	0	3	0	0	4
	% within qualities	25.0%	0.0%	75.0%	0.0%	0.0%	100.0%
	% within firm size	0.9%	0.0%	3.2%	0.0%	0.0%	0.9%
	% of total	0.2%	0.0%	0.7%	0.0%	0.0%	0.9%
Aggressiveness	Count	0	0	0	0	1	1
	% within qualities	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% within firm size	0.0%	0.0%	0.0%	0.0%	3.7%	0.2%
	% of total	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%
Autonomy	Count	0	2	0	1	1	4
	% within qualities	0.0%	50.0%	0.0%	25.0%	25.0%	100.0%
	% within firm size	0.0%	1.1%	0.0%	3.4%	3.7%	0.9%
	% of total	0.0%	0.5%	0.0%	0.2%	0.2%	0.9%

(continued)

Table 1 (continued)

	Firm size						Total
	Self-employed	Microenterprise	Small company	Medium-sized enterprise	Large enterprise		
Total							438
Count	112	175	95	29	27		438
% within qualities	25.6%	40.0%	21.7%	6.6%	6.2%		100.0%
% within firm size	100.0%	100.0%	100.0%	100.0%	100.0%		100.0%
% of total	25.6%	40.0%	21.7%	6.6%	6.2%		100.0%

Source: Own results

Table 2 Differences in perceptions of a good leader according to the size of managers’ firms (micro- and large companies)

Ranks				
	Firm_size	N	Mean rank	Sum of ranks
Qualities	Microenterprise	175	96.05	16,808.00
	Large enterprise	27	136.85	3695.00
	Total	202		
Test statistics ^a				Qualities
Mann-Whitney <i>U</i>				1408.000
Wilcoxon <i>W</i>				16,808.000
<i>Z</i>				-3.501
Asymp. Sig. (2-tailed)				0.000

Source: Own results

^aGrouping variable: firm_size

chose perseverance came from microenterprises. 37.9% of the managers from medium-sized enterprises considered that professional knowledge is determinant for a good leader (Tables 1, 2, and 3).

We check if there are differences in opinions related to leader between managers from microenterprises and from large enterprises since the empirical evidence suggested that professional knowledge is the most important quality selected by the most managers of microenterprises and perseverance is mostly preferred by the managers of large companies.

According to nonparametric tests, there are significant differences in opinions between managers from microenterprises and those from large enterprises at 5% level of significance. Indeed, in case of a large company, the professional knowledge is a given one, the perseverance in achieving the strategic goals being also important. The large number of employees that require for coordination asks the leader to have patience and a lot of perseverance to harmonize them for achieving the goals. But this perseverance should be based on a good knowledge. In a micro-company with few employees is quite easy to coordinate them. The most important is the insistence to determine people to do what they should do rather than the quality of the leadership process. So, an ethical competence of leader as person is required in a micro-company, while large firms need more knowledge of techniques of leadership.

We also checked the differences in opinions between managers from small and from large companies.

According to nonparametric tests, there are significant differences in opinions between managers from small enterprises and those from large enterprises at 5% level of significance. Table 4 reports the results of the Kruskal-Wallis test for checking the differences between all categories of firms. The same conclusions like in the previous case should be reported here. The quality of leadership as process is more required in large enterprises than knowledge, while small companies

Table 3 Differences in perceptions of a good leader according to the size of managers’ firms (small and large firms)

Ranks				
	Firm_size	N	Mean rank	Sum of ranks
Qualities	Small company	95	57.19	5433.00
	Large enterprise	27	76.67	2070.00
	Total	122		
Test statistics ^a				Qualities
Mann-Whitney <i>U</i>				873.000
Wilcoxon <i>W</i>				5433.000
<i>Z</i>				-2.587
Asymp. Sig. (2-tailed)				0.010

Source: Own results

^aGrouping variable: firm_size

Table 4 Kruskal-Wallis test is employed to check the differences between all categories of firms

Test statistics ^{a, b}	
	Qualities
Chi-square	17.595
Df	4
Asymp. Sig.	.001

Source: Own results

^aKruskal-Wallis test

^bGrouping variable: firm_size

need a leader with strong personality proving perseverance, even if knowledge is still necessary.

Overall, we can state that there are significant differences between managers regarding opinions on a good leader according to size of managers’ companies. In large companies, professional knowledge is determinant, but perseverance is not neglected. On the other hand, smaller companies need perseverant leaders without omitting their professional education. These results also support the recent studies from literature (Cashman 2017; Komives and Wagner 2016; Shapiro and Stefkovich 2016) that require professors to help students in gaining the abilities of being a good leader, beside other abilities related to the critical position related to the best activities in the company and the capacity of organizing the work. The other competences related to activity and native qualities of the leader are less considered by the managers in our study.

4 Conclusions

There are many opinions in literature regarding the competences of a good leader, but most of them focus on a theoretical description of experts. Based on this approach, we extend our research by validating our opinions in practice using a sample of managers from the Czech Republic that were asked to select the most important qualities of a leader according to their perceptions. The results indicated significant differences in the managers' opinions regarding the perception on leadership. Most of the managers in the sample considered professional knowledge as the most important feature of a successful leader. There are significant differences between managers regarding their opinion of the most important characteristic of a good leader. Almost half of the self-employed managers considered this characteristic as determinant for a good leader. Perseverance was considered the most important feature of a leader for most of the managers from microenterprise, small company, and medium-sized enterprise. Most of the managers of large companies indicated professional knowledge as determinant for a leader.

However, our empirical research is conditioned by the consideration of specific possible competences of a leader. The list of features might be continued by adding other competences that are mostly focused on the relationship with followers. On the other hand, our study might be continued by making a comparison with managers' opinions from other countries. It is possible for the culture of a country to have an important influence in the managers' perceptions on a successful leadership.

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Strong HR Brand as a Sign of Leadership in Business



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Abstract Negative demographic trends in Russia in the last quarter of a century and increasing demands on the quality of personnel have actualized the struggle of employers for professionals, and the winners are the companies with a strong and attractive HR brand. In this article, the authors consider the employer's brand in a correlation with leadership positions in business. In this regard, the purpose of the study, which became the basis of this article, was the development of a management mechanism for maintaining HR brand. As a theoretical approach to the development of this mechanism, the concept of managing the employer value proposition has been adopted. The research methodology, which regards HR brand as an element of leadership, provided for a sociological study that included a semi-structured interview of managers and specialists of the HR services of Russian companies. The results of the study are presented in the form of a model of the management mechanism of HR brand and proposals for activities aimed at building a strong HR brand providing leadership in business for the company. The results obtained can be used in further scientific researches related to efficiency practices in the field of personnel marketing, as well as in the educational process. Besides, the developed model of HR brand management mechanism is recommended as a basis for the development of organizational structures and business processes for the company's HR brand formation, and the proposed activities can be included in action plans for the implementation of HR strategies of the companies.

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1 Introduction

The innovative development of Russian economy and the achievement of leadership positions in certain spheres of management require a change in the quality of the main production factor – human resources. However, it is the qualified employees that are the scarcest resource in Russia nowadays, which complicates the recruitment process. The main factors for deficit creation are:

First of all, the processes of depopulation, which are particularly evident in industrial regions. Russia faced the consequences of a catastrophic decline in the birth rate of the late 1980s and early 1990s. According to calculations (Korotaev and Khalturina 2011), the demographic hole in the 1990s was absolutely unprecedented in scale and Russia has not faced anything like that before: the number of Russians who were not born as a result of the catastrophic decline at the birth rate of the late 1980s and early 1990s is several times higher than the number of Russians who were not born as a result of World War II.

Demographic problems are aggravated by the high mortality rate of the able-bodied population. So, in January–June of 2017, 198,313 people of working age died, which makes up a ratio of 480.6 per 100,000 of the population of the corresponding age and is almost four times higher than in the countries of Europe.

Secondly, it is an inefficient migration policy. In Russia, migration policy is aimed at increasing the quantitative indicators of the attracted foreign labor, but not qualitative. Therefore, in 2016, 18% of those who got a work permit in Russia were highly qualified specialists; their share decreased by 38% compared to 2015, qualified – 9.9% with a reduction in the share of 33.1%. This indicates deterioration in the quality of foreign workers attracted to Russia.

Thirdly, it is a system of professional education that is not fully in line with modern requirements. Employers in Russia blame the education system for the fact that training is often carried out according to standards that are far from their requirements, and that leads to a situation when a graduate of a vocational educational institution differs little from the competence of a school graduate (Kokovikhin et al. 2016).

The above negative demographic trends and increasing demands on the quality of personnel prove the relevance of the formation of a strong and attractive HR brand in the employers' struggle for professional specialists.

The purpose of the study is to develop a mechanism for managing HR brand based on analysis of the management of the employer's value proposition by leading Russian companies.

2 Literature Review

The issues on management of HR brand (the employer's brand) have an interdisciplinary approach. General brand management mechanisms are studied by marketing, where a brand is defined as "not simply a sign, symbol, words or their combination, helping consumers to distinguish goods or services of one company from another, but as a set of representations, associations, emotions, value characteristics about a product or service in consumer consciousness" (Shevchenko 2014), a mental envelope of a product or service (Gregory 1997). Employer branding is based on the marketing theory of brands. Information and access to information also play an important role (Zielińska 2016).

However, HR brand has its own peculiarities, connected with the fact that workplaces for employees are to be promoted. The term "employer brand" was first introduced to a management community in 1990 by Simon Barrow and was later identified by him along with Tim Ambler (Ambler and Barrow 1996). Employer branding (HR branding, development of the employer's brand) is a combination of company's efforts to interact with existing and potential employees, which makes it an attractive place of work (Lloyd 2002). The mechanisms for retaining the available and attracting the qualified and motivated personnel are determined by the theories on personnel management and organizational behavior and eliciting preferences and willingness to pay and to accept (Chiabai et al. 2014; Hošťovecký and Poláček 2016). With regard to the above, one has to note that the studies of organizational attractiveness for potential workers are important (Pesha and Devyataykin 2016), as well as psychological and sociological studies of organizational identity (Čábelková et al. 2015), peculiarities of personality behavior in the organization, attitudes toward the top management, as well as positioning and branding (Simionescu and Strielkowski 2017). Attempts to integrate theories and research from a number of key academic areas have previously been undertaken (Edwards 2009; Moskalenko and Yevsieieva 2015).

Management of HR brand based on the concept of managing employer's value proposition is the central research idea of the following scientists: Keefe (2007), Mitchell (2008), Martin (2009), Schlager et al. (2011), Koudelková and Svobodová (2014), Lievens and Slaughter (2016), and many others. Employer value proposition (EVP) refers to the balance of benefits and privileges provided by employers, in exchange for employee productivity at the workplace (Minchington 2006).

The relationship between leadership and the employer brand was studied only from the position of the leader's influence on the brand. Thus, it has been proven that leadership of top management is the strongest predictor of employer branding (Biswas and Suar 2016). Efficient leadership contributes to the support of the HR brand (Wallace et al. 2013), and authoritarian leadership (Kashyap and Rangnekar 2016) and toxic management practices (Fedorova et al. 2013) weaken it.

Despite the availability of a number of publications on this topic, a number of points remain poorly studied. Therefore, the issues of influence of a strong employer brand on its leadership position in business require further study.

3 Research Methods

The research methodology included accumulation of data and information using several methods: analysis of scientific publications, semi-structured interviews, and observations. The data presented both historical and current information in this social sphere. The reasons for using these methods are related to the study of social phenomena: national culture, values, behavior, and practices of personnel management. Thus, the collection, selection, and analysis using the methods of interpretation (that reveal the ideas (meanings) formed during the economic activity of people, show the scope of their application) provide the basis for obtaining visible results and forming recommendations. These methods are used in the in-depth analysis of data obtained from semi-structured interviews with managers and HR specialists to study approaches and practices in the management of HR brand in the national cultural environment as a business model.

The object of the study of HR brand management practice was the organizations of three types of activities, providing employment of 5–10% of workers for each activity and demonstrating the highest economic performance in their group according to data for 2011–2016 in Sverdlovsk region of the Russian Federation that allows to attribute them to the number of business leaders:

- Processing industries – five organizations (number of employees is more than 1000 people)
- Construction – ten organizations (number of employees is more than 500 people)
- Wholesale and retail trade – 12 organizations (number of employees is more than 500 people)

Respondents were a total of 34 top (line) managers and heads of HR departments who filled out the questionnaires or participated in a semi-structured interview on the questionnaire. In order to ensure comparability of results, some questions of the questionnaire took into account the studies conducted earlier by “HeadHunter” company. The questions of the questionnaire are aimed at revealing the practices of HR brand management. In addition, the availability of managerial competencies in the HR brand management was also diagnosed, as well as awareness of the need to acquire (deepen) these competences (Table 1).

4 Results of the Study

Among the surveyed managers and specialists in HR services, 85% (representatives of 23 organizations) indicated that they are promoting the organization’s brand as an attractive employer. This result is higher than in the “HeadHunter” study (54% in 2014 and 58% in 2016) (How to work on HR brand 2013; Emelenko 2015), which can be explained by targeted selection of industry leaders, and confirms the idea of a link between leadership in business and the use of HR brand management methods.

Table 1 Questions for diagnosing HR brand management practice

No.	Question of the questionnaire
1.	Does the management of your organization ask for the formation and promotion of HR brand?
2.	What structural units have the functions of promoting HR brand?
3.	How many years has the organization been working to form and promote HR brand?
4.	What improvements have occurred since the decision to promote HR brand was taken?
5.	How long did it take to close one vacancy on the average before and after taking a decision to promote HR brand?
6.	How many responses (on average) per vacancy did you have before and how many after starting work on promoting HR brand?
7.	How many qualitative CVs did one vacancy get before and how many after the launch of HR brand promotion?
8.	How many CVs from the employees were for one vacancy before and how many after starting work on promoting HR brand?
9.	What was staff turnover before and after starting work on promoting HR brand?
10.	What was the proportion of employees who successfully passed the probationary period before, and what was after the start of promoting HR brand?
11.	Which HR brand assessment tools are used in your organization?
12.	Are you familiar with the methods of forming the employer value proposition (EVP)? What activities have you (with your participation) implemented with the goal of forming competencies and understanding the tasks of social and cultural diversity in the organization?
13.	Do you consider it necessary to deepen the professional knowledge in the field of HR brand management and the formation of the employer value proposition (EVP)?

Source: Authors’ own results

At the same time, all organizations engaged in promotion of HR brand, this function is assigned to the structural units responsible for social policy and personnel management within the budget approved by the divisions.

Eighty percent of respondents noted noticeable improvements, caused by the work on HR branding, which is close to the results of the “HeadHunter” study (74%). The main ones were associated with an increase in the number of job responses (50%), an increase in the number of recommendations from employees (35%), and a reduction in the duration of vacancies (35%) – these indicators are substantially higher than those of “HeadHunter” (39%, 25%, and 24%, respectively). At the same time, all recruiting parameters have positive dynamics (the share of employees successfully passed the probationary period has decreased, fluidity has decreased, and the number of qualitative responses has increased).

Among the tools for assessing HR brand, interviews of employees are leading. Their first goal is to assess the involvement and satisfaction of employees. This tool is used in all the organizations working with HR brand. Interviews during dismissal are practiced by 60% of respondents; 50% of respondents are following the brand on the Internet. Interview with employees is practiced by 50% of the respondents. Polls of competitors (when assessing the position of HR brand in the labor market) are practiced by 40% of the studied companies.

At the same time, the method of evaluation of HR brand, which is highly regarded in the “HeadHunter” research – focus groups with employees and job seekers – is not used by the organizations surveyed under this study.

Besides, the study showed that only three respondents (9%) are familiar with the methods of forming the employer value proposition (EVP), but they do not use this approach as the basis for HR brand development strategy. Apparently for this reason, 100% of respondents noted the need to deepen the professional knowledge in the field of HR brand management and the formation of the employer value proposition (EVP).

5 Conclusions

Summing up the results of our study, it should be noted that the creation of a managed competitive employer value proposition (EVP) is a comprehensive integration project in which (in addition to the HR service) business leaders, marketing specialists, PR specialists, and partners from recruiting companies have to participate. This proposal should differ from the proposals to talented personnel by other competitor organizations, be recognizable, and reflect the real situation. In addition, the managed employer value proposition should be differentiated by target audiences – the categories of employees. Possible differentiators are social characteristics, level of position, functional features, etc. Depending on the target audience, a set of attributes and basic elements are formed.

Further research might focus on how the employer’s brand affects the organization’s ability to attract, engage, and retain talents and to improve the level of communication between employees, customers, and profits in order to take the company’s leadership position in business.

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Leadership and Crypto-Currency in the Era of Crowd Economy



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Abstract The rapid development of IT technology has led to a serious change in many spheres of economic life. The centuries-old order of financial and monetary transactions is changing. The role of the state and its institutions in the conduct of many payment, settlement, and investment operations is significantly and rapidly compressed. At the same time, there is no complete understanding of how to build the circulation of nonmonetary money and safe work in the conditions of crowd technologies development. The purpose of the study is to analyze the results of the development of crypto-currencies, history and mechanisms of their distribution, definition of economic essence, and stability of non-fiat money. The article discusses the role of crypto-currency in the evolution of money, reveals the main trends underlying this process, and justifies the inevitability of further development of circulation and payment instruments. The consequences of using virtual money for monetary regulation of the economy are analyzed. Additionally, the reaction of the monetary authorities to the undergoing changes is estimated.

1 Introduction

The process of civilizational development, which developed over several millennia, passed along the path of increasing intermediaries in many socioeconomic processes. At the same time, not only the number of intermediaries grew, but also the functional part performed by them. In the public consciousness, this process was perceived as a natural path of development.

However, with the development of IT technologies, the current trends in social development have started to change. The possibility of direct communication of a large number of individuals and free distribution of information for an unlimited range of potential partners makes the participation of traditional intermediaries in

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many processes less demanded (Zielińska 2016). The result was the emergence of a new standard of socioeconomic relations, called crowd economy.

In general, crowd economy is an economy formed by a crowd, the masses of individuals who do not have a formalized unifying basis. It can be said that this economic model is based on a system of decentralized distribution of labor, material wealth, and financial and intellectual resources. Moreover, the role of the state as the main regulator of the economy, the organizer, and the moderator of many redistribution processes is significantly reduced. This, of course, might lead to the raise of the shadow economy (Mostenska 2015). At the same time, the importance of the individual (either an individual or a small association of citizens) increases significantly, independently determining the volume of their own needs both in production matters and in terms of the intensity of labor activity (European Central Bank 2012; Chamberlin 2015).

The study of the formation of crowd economy and its impact on the traditional social and economic processes has just started (Mills 2014; Robleh et al. 2014). But it is already clear that there are several trends that hamper this process. These include overheated financial markets, the existence of financial pyramids, and the vulnerability of the preservation of personal data collected by numerous intermediaries. As a result, we can talk about mass distrust to economic processes and consumer expectations of fraud and abuse, which, in turn, gives rise to a kind of need for a “strong hand” in the form of a state that can bring order and prevent problems in the future. At the same time, society sees the inertia and sluggishness of the state machine, a serious lag behind the emerging reality and untimely reaction to emerging threats and economic and social discrepancies. The answer to this is the reaction of businesses trying to form a new architecture of economic and social relations and connections (Yuzvovich et al. 2016). The result of such complex and contradictory trends is the appearance of such a phenomenon as crowd economy.

2 Literature Review

An additional factor that confirms the inevitability of the development of crowd economy is its combination with such a trend as increasing importance of creative solutions and accelerating the pace of changes in existing realities in all spheres of society. It is within the standards of crowd economy that not only the availability of financial resources for the implementation of new products, technologies, and various services increases but also the ability to predict the emergence of new ones. Moreover, by financing the innovations, consumer “offers” companies to develop and improve current services, thereby forming a preorder for the creation of the future ones (Mills 2014). This leads to a significant reduction in the distance between the producer and the consumer – new products and services are formed and implemented together! And even more, the consumer himself can choose what will be created tomorrow! And this means that the individual him(her)self gets the right to really choose his/her future.

Thus, it can be argued that crowd economy is a manifestation of the revolutionary change in the paradigm of social development, affecting not only economic processes but also relevant the social, political, and technological aspects of the development of modern society (Moyseyenko and Ryvak 2016). For the individual, there appears the opportunity for full self-realization while increasing responsibility for own choice!

The question arises – what impact did crowd technology and the realities of crowd economy have on such an important economic phenomenon as money? Money is a special phenomenon that emerged in the early stages of the development of modern civilization that accompanies humanity at all stages of social growth (Čábelková et al. 2015; Hejek et al. 2016). And although each stage of money development is unique and has its own unique features, the main trend of their development can be pointed out: increasing the speed of money circulation (and, as a consequence, the speed of payments) and increasing the availability of payment instruments and controllability of the transfer process. The introduction of crowd technology into the sphere of monetary relations has led to the appearance of non-fiat money – crypto-currency (Ali et al. 2014).

However, the emergence of crypto-currencies was the result not only of introduction of crowd technologies but also of the policy pursued by the monetary authorities of most countries of the world. In order to improve the quality and efficiency of the organization of monetary circulation, the central banks of many countries (including Russia) are pursuing a policy aimed at reducing the share of cash in payments. With regard to legal entities, this problem is considered to be practically solved, since the procedure for organizing payment is widely regulated in practically all the countries (Strielkowski and Höschle 2016). Calculations made by individuals have some limitations, but they exert the maximum influence on the share of cash in the aggregate money supply. With regard to Russia, it can be said that the monetary authorities periodically declare their intentions to introduce regulatory measures in this area. However, there are no principal actions in this direction. And this is positively estimated by the majority of economists, taking into account the fact that the share of cash circulation in the country decreases invariably (Table 1).

At the same time, the share of cash in the retail economy remains significant, not only in Russia but also in foreign countries with a developed economy. In retail trade, noncash payments are in the USA, 75%; in Europe, 76–86%; in Japan, 90%; in Switzerland, 80%; and in Russia, about 20% (National Bank of Russia 2017).

3 Methodology and Discussions

Since the time of Marx, a secondary role of the economic nature of money in the payments has been noted. As it was said, the function of money as a medium of circulation is fulfilled by different kinds of money, and they really do it. Nowadays, the presence of money as an object in the bank payments still remains relevant,

Table 1 Structure of M2 aggregate in the RF economy according to the Central Bank (billion rubles)

Indicator	01.01.11	01.01.12	01.01.13	01.01.14	01.01.15	01.01.16	01.01.17
Total	15,267.6	20,011.9	27,405.4	31,404.7	32,110.5	35,809.2	38,417.9
Aggregate M0	4038.1	5062.7	6430.1	6985.6	7171.5	7239.1	7714.8
Share of cash, %	26.45	25.3	23.47	25.49	22.34	20.22	20.08
Noncash funds	11,229.5	14,949.1	20,975.3	24,419.1	24,939.1	28,570.1	30,703.1

Source: Own results

though not in the literal sense but only when coins or paper notes issued by the Central Bank are concerned. Proceeding from the trends of the world and domestic economy, noncash funds, including electronic money, are the most important among all kinds of incomplete money. They also act as a transitory intermediary in the “products-money-products” chain, which always was a classical interpretation of the function of money as the medium of circulation.

Modern economists often view the function of money as a primary means of circulation, drawing attention to the fact that the form and nature of the organization and regulation of monetary circulation have a significant impact on the economic processes in the country as a whole.

Such indicators as the demand and supply of money in the economy are of particular importance today, as well as the amount of money in the money circulation channels. These parameters for many years depended on the policy pursued by the Central Bank. Proceeding from the tasks being solved at the time, the country’s main bank stimulated an increase or contraction of the money supply in circulation, thereby ensuring a reduction in the level of inflation or an increase in the rates of economic growth. The complexity of the current moment is in the fact that the share of non-fiat means of payment that perform the functions of circulation is growing in the modern economy. Virtual money, which is emitted by private individuals, in particular, crypto-currencies, are considered as non-fiat in this study. The appearance of non-fiat money is a consequence of the following factors:

- Quick reaction to the achievements of scientific and technological progress. All the advances in technology were implemented in the shortest possible time in the process of producing money carriers. This trend allows us to say that the evolution of money is an endless process, as the process of society’s development itself is endless.
- Increase in the speed of circulation of money and, as a consequence, the speed of payment process. Traders at all times have sought to optimize the time required to make payments. It should be noted that this optimization was always accompanied by two limiting factors: the price of the acceleration of payment (the amount of commissions and other costs for the chosen method of payment) and the security of payment (the desire to minimize the risk of losing funds during the settlement transaction).
- Increase in availability of payment instruments and the controllability of the transfer process. Business strives for the simplest and most affordable payment tools, seeking to control (from the position of security and protection of profit) the process of doing payments.

The methods and forms of electronic payments have become more diverse over the years. Nowadays, the total number of crypto-currencies is more than 1000 forms. By September 2017, the market capitalization of the Crypto-currency had reached USD 157,218 million. The growth rate of the market is staggering: since the beginning of 2014, the number of currencies has increased by 5.5 times, and the level of capitalization has increased by 17.1 times.

Table 2 Indicators of the most common crypto-currencies (state as of August 2017)

Currency (code)	Year of creation	Emitter (site)	Rate USD	Capitalization million USD	Limited emission, million units
Bitcoin (BTC)	2009	Satoshi Nakamoto (bitcoin.org)	4366.46	72,157.2	21
Bitcoin cash	2017	bitcoincash.org	625.10	16,548.1	
Ethereum (ETH)	2014	ethereum.org	337.71	31,865.1	94.3
Ripple (XRP)	2012	Ryan Fugger (ripple.com)	0.202	7754.8	100.000
Litecoin (LTC)	2011	Coblee (litecoin.org)	59.56	3136.0	84

Source: CoinMarketCap (2017)

In this regard, the state, along with individual economists, faces the task of assessing the electronic money market and the crypto-currency in particular, as well as the nature of its impact on the economic position of the state. But it must be taken into account that the latter is closely interrelated with political and social development and possibly with the national security of the state.

In this aspect, special attention should be given, in our opinion, to a certain group of currencies and the nature of their use (Table 2).

There are a lot of electronic exchanges (e.g., Bitstamp, Mt.Gox, BTC-E, etc.) where the quotes for crypto-currencies are displayed, as well as money transfer systems (e.g., payment systems such as QIWI, Visa or MasterCard, PayPal, and MoneyGram and electronic money systems like Yandex.Money, WebMoney, etc.) that provide their cross-border movement.

Convertibility of crypto-currency into real money indicate their ability to provide a transition to a different scale of prices, which is the basis for some economists to consider them as a tool that performs the function of world money.

In spite of the fact that it is difficult to agree with this statement, it is necessary to note the presence in the world economy of well-formed theories explaining and approving the emergence of crypto-currencies. Of particular interest is the opinion of F. Braudel, who claims that “money flocks to the service of those who own the technology of their circulation.” The followers of the Austrian economic school in the person of M. Rothbard, speaking of the state regulation of monetary circulation, assert that “in the sphere of money circulation, as in other areas of human activity, coercion generates conflicts and chaos instead of order” (Rothbard 2005). This opinion is supported by F.A. Hayek in his work *Denationalization of Money* (Hayek 1990).

The market of crypto-currency is growing rapidly, and accordingly the pressure on money circulation and its influence on the national economy as a whole are increasing. Therefore, the issue of studying the direction of their influence on the payment system, the regulation of the financial market, and the policy of the central banks to ensure financial stability and price level stability is becoming up-to-date.

4 The Influence of Crypto-Currency

Therefore, the influence of crypto-currency can be considered in the following directions:

1. Increase in the amount of money in the economy. Nowadays, the influence of crypto-currency on the money supply is not considered as a significant factor in many countries. For example, according to estimates in the UK, the amount of Bitcoin in circulation does not exceed 60 million pounds, which is only 0.1% of cash and 0.003% of the money supply. Twenty thousand people commit daily up to 300 transactions (Ali et al. 2014). Although the amount of crypto-currency is incommensurable with real money, its increase in the future cannot be excluded. In addition, the total expression of the amount of crypto-currency in circulation can sharply increase as a result of exchange rate fluctuations, as was the case with Bitcoin in 2013.
2. Increase in the speed of circulation of money. Crypto-currencies influence the speed of money circulation. As a result of trade on the Internet in general and due to the crypto-currency, in particular, the demand for official payment instruments is declining. Consequently, additional conditions are created to reduce emissions.
3. Change in the structure of monetary aggregates. The change in the structure of monetary aggregates implies, first of all, a reduction in M0 – cash. In addition, the active use of virtual money leads to a reduction in the balance of the central bank and a decrease in the effectiveness of monetary policy.

Based on the above factors, the impact of virtual money is inevitable and will increase within the years. However, the monetary authorities and governments of countries implement different strategies in organizing monetary circulation in the country.

The most conservative strategy implies prohibition and criminal liability for the use of crypto-currency as, for example, imposed by such countries as China and Bangladesh.

A softer position presumes partial restriction of operations, the search for ways of combining the fiat and non-fiat instruments of circulation. So, the Spanish government has issued new rules that officially recognize the electronic payment system using Bitcoin. The government of the Kingdom of Thailand, initially negatively regarding the crypto-currencies, recognized their use as legitimate. And according to the Central Bank of Ecuador, in the near future, it is planned to issue a state virtual currency for citizens of the country, which will allow citizens to make payments using mobile phones, which will lead to a decrease in transaction costs. California has passed a law that officially recognizes the legitimacy of “private currencies.” Partial restriction of operations in crypto-currencies operates in India and Canada (CNBC 2017).

The policy of pragmatic realism involves the inclusion of non-fiat instruments in the calculation system, the definition of a legal field for them. This position is characteristic of the European Union, in which the phenomenon of virtual money

is given considerable attention, and the first serious legal solutions began to be worked out in the early 2000s (European Union 2009, 2015).

Discussing the expediency and effectiveness of various actions of the Central Banks, it is necessary to remember the historical aspects of the evolution of the monetary system, and most importantly, in the economic life of the country, direct prohibitions and restrictions, most often, had negative consequences.

It is obvious that the real sector of the economy is the primary one, and monetary circulation is formed on the basis of its needs. And often, the policy of central banks lags behind the demands of the times. Thence, it was in the conditions of the gold standard and metal circulation as a whole, when the growing stock demanded the appearance of inferior money, as the metal circulation could not grow corresponding to GDP growth rates. The prohibition on the use of inferior money would lead to a restriction of production and stagnation in the economy. At that time central banks began to lose control over money circulation, but from two negative points, namely, the loss of monopoly on the emission of money or stagnation in the economy, it was necessary to choose the least negative effect. The greatest negative consequences are expected from stagnation, as it provides a reduction in the living standards of the population, a crisis in public finances, and an increase in sociopolitical tensions.

The authors of the article share the view that today we are experiencing another period of the evolution of the monetary system, which is characterized by a rejection of cash circulation, the maximization of noncash settlements, and the prospect of virtual money growth in the payments. The rapid growth of payments in cryptocurrencies is also due to the fact that they can not only ensure the necessary level of confidentiality and anonymity but also do not require communication with the center to confirm payment. In this regard, the cost of the transaction is minimized, and such systems can be effectively used to provide micropayments – payments of less than USD 1, where traditional credit card systems are economically unprofitable. The micropayments can provide the main sales turnover of information on the Internet.

But in the past, and in the present, transition to a new practice of organizing money circulation led to financial losses and other problems, both for users and for state institutions. As a consequence, it was found that competition is a characteristic element of a market economy, but there are industries declared to have special characteristics regarding the existence of a single player or the desire for monopolization as an integral attribute.

5 Conclusions

Overall, one can agree with a circle of economists who emphasize that the transfer of rights that enable individuals to participate in the organization of settlements and issuance of payment instruments imposes a certain responsibility on them, which most of the people cannot cope with. Consequently, this may result in a drop in the purchasing power of certain settlement instruments, as well as in the total loss of funds nominated in them. The historical experience of foreign countries, in which

banknotes were issued by private banks, is an example that confirms such a probability. Dynamics of Bitcoin in August–September of 2017 is a confirmation of this statement.

Of course, it can be noted that the funds invested in the national monetary unit are subject to inflationary fluctuations and are also sensitive to the volatility of the foreign exchange market. In addition, economists, who are opposed to monopoly by the state for monetary circulation, note that the state needs the monopoly in emission activities in order to redistribute incomes.

However, the probability of default of an individual state is much less than that of an individual. When it occurs, in the conditions of the country's transition to a new practice of organizing money circulation, old money is exchanged into new one at a certain ratio. This did not happen and, most likely, will not happen with the bankruptcy of private issuers.

To the existing problem, which has historical roots, a modern one is added, consisting in the possibility of money laundering and the financing of terrorism through crypto-currencies. This forces the Central Banks to exercise additional control over certain individuals, companies, banks, and other participants in the payment system. Proceeding from this, it can be assumed that regulatory, controlling, administrative, and criminal measures and events will inevitably accompany the circulation of crypto-currencies and its participants.

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Determination of the Leading Positions of Companies Based on the Financial Potential of Their Innovative Development



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Abstract The goal is to identify factors affecting the innovative development of oil and gas companies and, based on identified factors, to form a model for an integrated assessment of the financial potential of companies' innovative development. The methodological basis of the work was general scientific principles and research methods: analysis and synthesis, induction and deduction, collection and generalization of the theoretical bases for the development of a balanced scorecard, and their comparison with the practice of application. Within the framework of the integrated approach, the methods of grouping and comparison and calculation and analytical methods were also used. The study used a comparative analysis of indicators and factor analysis of reporting data of oil and gas companies based on the integration of factor characteristics of current and fundamental performance indicators of companies; a system of financial indicators was formed to determine the position of the financial potential of company's innovative development and to identify leading companies on the basis of innovative development. The ranks of indicators are determined, and weighted coefficients are assigned to them on the basis of the Fishburn rule (criterion). The initial and normalized indicators are determined, and on the basis of this, vector values are formed. An integrated assessment of the financial potential of innovative development of companies has been formed. The dependence between the volumes of financing R&D and indicators of the capital structure was revealed. It is determined that the company finances R&D, including through borrowed capital.

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1 Introduction

The problem of methodological support of a comprehensive assessment demonstrates not only general theoretical but also applied interest. At the same time, from the point of view of financial potential, both aspects in their importance are completely inferior to each other. The methodological aspect of assessing the financial potential of companies and the potential of innovation development should contain a rationale for such approaches that would take into account both purely sectoral and incorporate factors and their mutual influence.

2 Literature Review

The modern methodology of corporate governance allows evaluating the innovative potential of companies in various ways. Methodology of Kuzminykh (2011) is based on the application of the cumulative index of innovative development of companies, which determines the relationship of innovation activity, innovation risk, and innovation potential:

$$\text{SPIR} = \text{IP} (1 - \text{IR}) * (1 + \text{IA}) \quad (1)$$

where:

SPIR – the final index of innovation development of an industrial company (%)

IP – innovation potential of an industrial company (%)

IA – innovation activity of an industrial company (%)

IR – the innovation risk of an industrial company (%)

The advantage of the method is the ability to be applied to any economic system. Application of expert assessments is a drawback, due to the fact that the author proposes the possibility of changing the number of considered factors according to the opinion of experts. The second drawback is that the evaluation methodology does not include indicators characterizing the financial performance of companies.

Gorbunov and Matveev (2002) determine the level of innovative development of companies on the basis of indicators that reveal the potential of their innovative development. At the same time, the assessment is carried out taking into account the expert method (Bordea et al. 2017). The advantage of this approach is a holistic view of the potential of innovative development of companies in the form of a summary table; the method reveals the interconnection of all criteria for the company's activities, which makes it possible to develop recommendations for its further innovative development. The main drawback of this method is a subjective assessment based on the opinion of experts (Tvaronaviciene et al. 2015; Strielkowski et al. 2016, 2017; Balcerzak and Pietrzak 2016; Jankelová et al. 2017; Simionescu et al. 2017).

Moreover, Zinchenko et al. (2005) determine the potential of innovative development of companies on the basis of an integrated assessment within the framework of companies' susceptibility to technological innovation and innovation activity. The susceptibility of companies to innovation is a characteristic of the evaluation system and its constituent elements. Disadvantages are the application of an expert approach to assessing the potential of innovative development of companies, the difficulty of gathering the necessary information, and the lack of analysis of the correlation between indicators of financial potential and other indicators of the potential of companies' innovative development (Koudelková and Svobodová 2014). The advantage is a systematic approach to assessing the potential of innovative development of companies (Machnáček et al. 2015; Moskalenko and Yevsieieva 2015).

An analysis of the approaches taken to assess the innovative potential of companies' development allows us to conclude that their financial potential is practically not investigated. This is the main drawback of these approaches.

There are approaches in which the authors highlight the financial potential of companies among other potentials of companies' innovative development.

Trifilova (2003) suggests using a valuation method based on financial stability to assess the total financial potential of companies. It determines the ability of companies to support the production process in combination with long-term and short-term loans (Trifilova 2003). In our opinion, this method has both advantages and disadvantages. The advantages include the simplicity of calculating the financial potential of companies and using one of the key indicators of the company's financial condition for this calculation. The drawbacks of the method are the lack of access to the necessary statistical data for calculating the indicator of the companies' financial potential and the limited possibilities of using current assets to finance the companies' innovative development. They are used primarily to ensure the operating activities of companies. In addition, the financial evaluation methodology does not include financial indicators of this assessment.

The method for evaluating the innovative development of companies of Fedorayev (2010) is based on a system of potentials, including scientific and technical potential, production-technological potential, staff potential, information potential, financial potential, management potential, and others. The author of this method proposes to carry out the calculation of potentials through an expert survey in order to select indicators that significantly affect the companies' innovative potential. Based on this, benchmark indicators of capacity assessment are selected. The selection of reference values or the selection of a reference object, when the innovation potential is the subject of analysis and evaluation, is a rather complex task, since there are no specific reference values for indicators – indices and coefficients, quantitatively determining the innovation potential.

The advantage of using the methods of additive and multiplicative convolutions is the admissibility of calculating and taking into account the dynamics of changes in the final indicator on the basis of the coefficient method, the results of which are clearly interpreted:

$$X = \sqrt[n]{\sum \left(\frac{Y_i(X_iE - X_i)}{X_iE} \right)^2} \quad (2)$$

where:

X_iE is the reference value of the i -th partial indicator.

Y_i is the weight (importance) in the overall system of indicators.

X_i is the actual value of the i -th partial indicator.

The advantage is covered by very significant shortcomings: the choice of a benchmark, when the subject of research is the innovative development of companies, is a difficult task; indicators that allow to quantify the potential of innovation development do not have specific normative values; the dynamics of the final indicator is a weighted average of the dynamics of private indicators; and the evaluation method does not include financial indicators. Moreover, Starovoytov and Fomin (2006) propose the following classification of indicators when evaluating the financial potential of an economic entity (see Table 1).

Given the obvious advantage of this approach, which takes into account the financial component when evaluating the potential of innovative development, it is based on expert assessments and on the use of normative values of financial indicators. In the conditions of economic instability, the financial and economic activity of companies is subject to external risks, under the influence of which financial indicators may deviate, sometimes significantly, from the normative values.

Scientists have different opinions on the choice of specific indicators that express the financial potential of innovative development of companies.

Shevchenko (2013) includes the following financial criteria into the methodology for assessing the financial potential of companies: financial stability factor, liquidity ratios, capital structure (autonomy) indicator, maneuverability index of equity, the ratio of own working capital, return on assets, return on equity, and profitability of sales. In the work there is the author's classification of approaches to the evaluation of innovative development of companies, taking into account the process and financial component of their innovation activity.

3 Research Methodology and Methods

In order to assess the financial potential of innovative development of companies, the indicators should be divided into two groups – fundamental and current. The indicators related to research and development (R&D) are fundamental.

Research of innovative development of companies allowed to reveal the following fundamental indicators that characterize the potential of companies' innovative development: the share of R&D in assets, characterizing the company's ability to introduce innovative technologies into the production process by actively using

Table 1 Ranking assessment of financial potential of the company (FPC) based on financial indicators

Financial indicators	High level of FPC	Middle level of FPC	Low level of FPC
1. Coefficient of financial independence	>0.5	0.3–0.5	<0.3
2. Coefficient of current liquidity	>2.0	1.0–2.0	<1.0
3. Coefficient of urgent liquidity	>0.8	0.4–0.8	<0.4
4. Absolute liquidity ratio	>0.2	0.1–0.2	<0.1
5. Return on assets	>0.1	0.05–0.1	<0.05
6. Profitability of equity capital	>0.15	0.1–0.15	<0.1
7. Efficiency of use of assets for production	>1.6	1.0–1.6	<1.0
8. Indicator of financial dependence	<0.5	0.7–0.5	>0.7
9. Share of unobligated assets in mobile form	>0.26	0.1–0.26	<0.1
10. Indicator of accumulated capital	>0.1	0.05–0.1	<0.05

Source: Starovoytov and Fomin (2006)

existing own and borrowed financial resources; the share of R&D in revenue, reflecting the companies' susceptibility to new technologies and their degree of development and applicability; and the share of R&D in net profit, showing the level of commercialization of innovation and the ability of companies to finance R&D from their own financial resources.

A cluster of current financial indicators associated with the assessment of the financial potential of companies takes into account the financial and economic state of companies: a group of indicators of profitability (R_i), group of indicators of liquidity (L_i), group of indicators of the structure of capital (S_i), group of asset turnover indicators (O_i), and group of company-financing indicators (F_i).

Formation and identification of indicators that characterize the financial potential of innovative development of companies include several stages. At the initial stage, the correlation between the indices is determined using the computer program MS Excel function CORREL. This function allows to calculate the correlation coefficient between two variable values. The range of the correlation coefficient is from -1 to $+1$ inclusive. The calculation of the correlation coefficient is based on a linear relationship.

Calculations of financial and economic indicators were made for the following companies: PJSC NK Lukoil, PJSC NK Rosneft, PJSC Gazprom, PJSC Tatneft, PJSC Bashneft, BP PLC (British Petroleum), ExxonMobil, Statoil, Chevron, and Royal Dutch Shell, included in the top 100 Russian and foreign companies from the rating "Expert 400" and "Platts Top 250 Global Energy Company Rankings" for 2015. The source of the information was the consolidated financial statements of companies compiled in accordance with International Financial Reporting Standards.

Based on the correlation analysis of the 16 financial and economic performance indicators of companies, 3 indicators were selected and included into the model for

Table 2 Reliability parameters of mathematical analysis of the model

No.	Indicator	Value
1	R2 (coefficient of determination)	Not less than 0.7
2	Partial correlation coefficients:	–
2.1	Coefficient of determination for yx1	0.75
2.2	Coefficient of determination for yx2	0.73
2.3	Coefficient of determination for yx3	0.7
3	Partial coefficients of pair correlation:	–
3.1	Coefficient of pair correlation for yx1 and yx2	0.4
3.2	Coefficient of pair correlation for yx1 and yx3	0.35
3.3	Coefficient of pair correlation for yx2 and yx3	0.3

Source: Developed by the author based on the company's reporting

assessing the financial potential of innovative development of companies: (i) profitability of assets on operating profit (ROEоп), X1; (ii) financial dependence (debt ration), X2; and (iii) turnover of noncurrent/current assets (turnover), X3. The multiple correlation model has the following general form:

$$y = f (XY1, XY2, XY3) \quad (3)$$

Taking into account the linear relationship between the productive and factor characteristics of the model, the information that allows asserting the reliability and reliability of this economic and mathematical analysis is summarized in Table 2.

According to the results of the study, the actual value of the determination coefficient is 0.725, which confirms the significance of the identified factor attributes for the further construction of the assessment model. The pair correlation of the partial coefficients is determined at the level of 0.4. This makes it possible to assert that the mutual relationship between factorial characteristics is low and they can be used in further analysis. Table 3 shows the quantitative relationships between the resultant and factorial characteristics.

Identifying and forming a system of indicators allow to determine their weight in the financial potential of innovative development of companies.

Formation of a system of indicators that would allow us to determine the weight of indicators for assessing the financial potential of innovative development based on the ranking of indicators and determining the level of significance of an indicator in the evaluation system is one of the poorly understood problems. In this context, in conditions of uncertainty, when only the data on the relative values of financial coefficients exist without the specific weight values of each indicator in the assessment system, it is advisable to use the tools used in other branches of science, in particular in the theory of fuzzy sets. According to the theory of fuzzy sets, when determining the weight value of the i -th indicator ($i = 1, 2, \dots n$), only the order of decrease in their significance is known, i.e., the ranks of the indicators ($r_i > r_i + 1 > r_i + 2$), and then the importance of r_i indexes should be determined by the Fishburn rule (Fishburn 1977):

Table 3 The relationship between the resultant and factor characteristics

Company	Correlation coefficient (R ²) of R&D (Y) and ROA indicator	Correlation coefficient (R ²) of R&D (Y) and debt ration	Correlation coefficient (R ²) of R&D (Y) and turnover assets
British Petroleum	0.76	0.730	0.73
ExxonMobil	0.72	0.710	0.7
Statoil	0.76	(-0.74)	0.7
Chevron	0.78	0.750	0.73
Royal Dutch Shell	0.75	(-0.72)	0.7
Lukoil	0.81	(-0.71)	0.706
Rosneft	0.73	0.710	0.71
Gazprom	0.73	0.720	0.7
Tatneft	0.74	0.730	0.715
Bashneft	0.73	0.710	0.713

Source: Own results

$$r_i = (2(N - i + 1))/((N + 1) N) \tag{4}$$

where:

i is the rank of the indicator (the serial number according to the ranking).

r_i is the specific weight of the *i*-th criterion (indicator).

N is the total number of ranks (ranked criteria).

In this case, for the specific weights *r_i*, the following normalization condition must be satisfied:

$$\sum_{i=1}^n r_i = 1 \tag{5}$$

Based on the formed system of indicators and their ranking using the Fishburn rule, the importance of indicators characterizing the innovative development of companies and their specific weights in the valuation system (Table 4) is determined.

The results of ranking current financial indicators and assigning weighting coefficients are presented in Table 5.

The methods described above make it possible to reveal the ranks of indicators (Bondarenko et al. 2017) and to form a system for assessing the financial potential of innovative development of companies. At the same time, most indicators of the financial potential of innovative development of companies have different measurement scales. This limits the possibilities of constructing (Kosov et al. 2016) and calculating an integral assessment of the financial potential of companies and does not allow to compare the efficiency of companies' activity in various aspects of the development of economic activity (Bolan 2013). To ensure commensurability of

Table 4 Results of ranking of R&D indicators and assigning weighting coefficients according to the Fishburn rule

Indicator	Rank (<i>i</i>)	The specific weight by the Fishburn rule (<i>r_i</i>)
1. R&D in the company’s total capital	1	0.5
2. R&D in revenue	2	0.33
3. R&D in net profit	3	0.16

Source: Own results

Table 5 Results of the ranking of financial indicators and assigning weighting coefficients by the Fishburn rule

Indicator	Rank (<i>r_i</i>)	The specific weight by the Fishburn rule (<i>r_i</i>)
1. Return on assets	1	0.5
2. Coefficient of financial dependence	2	0.333
3. Asset turnover ratio	3	0.166

Source: Own results

indicators of the financial potential of companies’ innovative development, it is expedient to apply the method of linear transformation. It is able to provide a transition from different scales of measurement of indicators to a single scale, according to which indicators are assigned with values from 0 to 1:

$$V_i = k_i/k_{\max} \tag{6}$$

where:

V_i – vector values of indicators of financial potential related to the set [0; 1]

k_i – the initial indicator of financial potential

k_{max} – the maximum value of the financial potential indicator among the sample indicators in the assessment system

The formation of a system of vector indicators is a necessary condition for determining the integral evaluation (Susu and Birsan 2009) of the financial potential of companies’ innovative development. Integral assessments of the financial potential of innovative development of companies are based on the use of methodology and calculations of vector indicators. It is expedient to determine it by formula (7), taking into account the weight components in the evaluation system:

$$I_{fp} = \sum (r_{ij} * VP_{ij}) \tag{7}$$

where:

I_{fp} – integral assessment of the financial potential of companies’ innovative development

i – an indicator in the evaluation system

r_{ij} – the weight of the indicator in the evaluation system

VP_{ij} – vector values of financial potential of companies’ innovative development

Table 6 Integrated assessments of the financial potential (Ifp) of oil and gas companies

Company	2010	2011	2012	2013	2014	2015
Lukoil	0.157	0.742	0.447	0.735	0.178	0.67
Rosneft	0.536	0.481	0.229	0.275	0.104	0.12
Gazprom	0.223	0.826	0.389	0.557	0.160	0.31
Tatneft	0.157	0.826	0.118	0.237	0.073	0.077
Bashneft	0.075	0.328	0.336	0.943	0.255	0.815
British Petroleum	0.41	0.43	0.45	0.85	1	0.34
ExxonMobil	0.4	0.48	0.67	0.79	0.81	0.45
Statoil	0.30	0.74	0.35	0.84	0.56	0.32
Chevron	0.31	0.41	0.26	0.37	0.2	0.41
Royal Dutch Shell	0.53	0.59	0.66	0.69	0.75	0.65

Source: Own results

4 Results and Discussions

The calculation of integrated estimates for oil and gas companies allows to obtain both a generalized assessment of the financial potential of innovative development of companies by Poolton and Hossam (2000) and the dynamics of its change based on indicators reflecting the most important aspects of the financial potential (Barge-Gil and Lopes 2015) of innovative development of companies. The capabilities of the methodology for calculating the integral estimate are applicable to companies (Danko et al. 2016) of the Russian oil and gas industry (Table 6).

5 Conclusions

Overall, it appears that clustering made it possible to identify groups of leading oil and gas companies based on the financial potential of their innovative development.

The results stemming from our estimations show that high financial potential of innovation development is characteristic for the companies with integral estimates. If $p \geq 0.8$, the companies use effectively available financial resources for the purpose of innovative development.

Our results can be used by the business leaders in the financial companies, banks, and other related institutions. They are also of a special importance for the stakeholders and policy-makers who are responsible for the innovations and development of the economy.

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Leadership and Entrepreneurial Competencies Evaluated by the Academic Community



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Abstract More and more attention is devoted in Russian universities to the development of entrepreneurship education, as well as entrepreneurial and leadership competencies of students. An analysis of entrepreneurship education problems and forming entrepreneurial competencies in Russian educational system was made within the framework of the project “READY for business: Integration and Evaluation of the Practical Entrepreneurial Skills in Engineering and ICT Sciences – Rebus”. Students’ and professors’ opinions regarding the importance of certain leadership and entrepreneurial competencies were also taken. Questionnaire method and document analysis were utilised in the investigation. Research results provided insight to the necessity of entrepreneurship education and effective methods of training. Comparison of the leadership and entrepreneurial competencies and differentiation of these depending on their significance for the students will enable one to make allowance for students’ educational needs when creating syllabi as well as define the criteria of maturity of the competencies in a better way.

1 Introduction

Innovative strategies of Russia’s development result in demand for novel methods of specialist training, making it possible to form not only competencies in separate professional fields based on fundamental knowledge but also managerial, entrepreneurial and leadership ones. All these make the discussion of the importance and the use of these competences a very timely issue.

Many studies, in Russia and abroad, show that the presence of the formed entrepreneurial and leadership competencies of the university-trained specialists should be in demand in the labour market (Čábelková et al. 2015; Simionescu et al. 2016; Jankeľová et al. 2017). Consequently, a system evaluating these

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competencies should be formed, allowing for their verification. The first part of our paper was aimed at creating an information base for analysing the discussions concerning the development and introduction of the competency-based approach in the entrepreneurship education in the scholarly and professional literature and media. Leadership, management and entrepreneurship are directly interconnected.

When observed from the point of view of leverage and rapid development, an entrepreneur is a leader capable of establishing their own enterprise in the presence of risk. The practical sociological research conducted in this paper made it possible to bring into focus the relevance of entrepreneurship training and development of the leadership competencies in students, defining the importance of entrepreneurial and leadership competencies for them.

2 Literature Review

Broad discussions about entrepreneurship education, development of leadership and entrepreneurial competencies have been held both in scholarly and professional communities of the European Union. At present, Europe encounters problems that can only be solved by proactive and highly educated citizens with entrepreneurial mindset (Bordea et al. 2017). Entrepreneurship education forms the mentality of the youth, as well as skills and knowledge playing a leading role in the development of the business culture (Zlyvko et al. 2014). Regardless of difference in approaches to forming the competencies necessary for an entrepreneur and leader, suggested blocks of the competencies contain a basically identical key core.

In the European Commission Annual Report by Education, Culture and Audio-visual Executive Agency “Entrepreneurship Education at School in Europe. National Strategies, Curricula and Learning Outcomes”, the key competency of the entrepreneurship refers to the individual’s ability to turn ideas into action (Koudelková and Svobodová 2014; Jiroudková et al. 2015). It includes creativity, innovations and risk and the ability to plan and manage projects in order to achieve goals. The authors consider it possible to teach entrepreneurship through providing more concrete knowledge about business in accordance with the level and type of education (Entrepreneurship Education at School in Europe 2012).

In Germany, there are plenty of universities with a concentration in economics. One can suppose that academic training of the economists capable of running their own company in the future is relevant and sufficiently reasonable. Nevertheless, as indicated by R. Schulte, training specialists oriented towards entrepreneurship is less developed, since its main goal is training managers but not entrepreneurs. In R. Schulte’s opinion, traditional education is aimed at establishing large companies with functionally and hierarchically assigned tasks, whereas start-ups are only reviewed superficially. Such training is at odds with the position of the economic politicians who expect a lot from university graduates capable of starting small enterprises (Schulte 2017).

In terms of training entrepreneurship, much attention has been paid to cultivation of self-independence and proactivity. The aim of the career enhancement project for teachers “Acknowledging and Developing Entrepreneurial Practice in Teacher Training”, implemented by Deutsche Kinder- und Jugendstiftung (DKJS) in cooperation with their partners from eight European states, was the development of self-independence, responsibility and creativity, i.e. the competencies included in the core of the entrepreneurial competencies. In this case, entrepreneurial competencies were regarded as relevant for any kind of professional activity (Vollherbst and Langhorst 2014).

Ethics is one of the directions in the modern discourse on leadership and entrepreneurship. It is regarded as an addition to the development of leader’s strategic competencies. The “win-win” concept provided the basis for the system approach in the development of the strategic leadership competencies, which represent three theories: economic ethics for competitive market economy, business ethics for corporate citizens and ethics of process for innovative management. Strategic competencies make it possible for a leading manager to generate social values and utilise morals as one of the factors of production (Pies et al. 2011).

The growing and changing world market sets new requirements for managers and leaders. More and more attention is being devoted to emotional competencies in the group of key competencies (Knebel 2012).

Business environment is described as uncertain, complex and ambiguous. When encountering this environment, the leader still wants to count on keeping his activity self-independent, transparent and autonomous. In this situation, diagnostics of competencies leading to success becomes a separate subject for discussions, in which integration of various diagnostic procedures is dwelt upon (Winkler et al. 2017).

The essence of strategic leadership presupposes the ability to learn, changeability and managerial wisdom (Boal and Hooijberg 2000). Cognitive leadership, according to a number of authors, includes such competencies as charisma, administration and perception, as well as transformation and change (Lord and Emrich 2000).

Leadership competencies are on full display in critical situations and under the conditions of reorganisation of an enterprise/organisation, when the necessity to motivate and lead the personnel of such an organisation comes at the fore (Akande 2000).

In the modern world, people try to develop leadership competencies as early as school days. The aim of the school project undertaken by the Ministry of Education, Culture, Sports and Technology (MEXT) was to find out whether global leadership competencies can first be developed and then measured. The researchers came to a conclusion that such competencies are multidimensional, and their development will require a fundamental reorganisation of the Japanese education system (Butler and Iino 2000).

Research by M. Hoelscher proves the existence of an interconnection between the national education system and economic system of a country. In his article “Varieties of Capitalism and Competencies of University Graduates” based on the data of an international comparative analysis, the author shows that graduates of German

universities single out more concrete competencies, whereas British graduates refer to general competencies (Hoelscher 2012). Therefore, when it comes to entrepreneurship training and leadership qualities development, students of universities in various countries can set their priorities in terms of competencies in a different manner.

Discussions in Russian scientific and professional literature regarding competencies necessary for entrepreneurial activity include a broad range of aspects: how to teach, what forms of education are the most effective ones and what entrepreneurial competencies are to be formed in students. Yu.B. Rubin notes that Russian universities and colleges do not participate in entrepreneurship training of the youth as far as is necessary, although around 15 Russian colleges have the word “business” in their names. The main cause predetermining this situation is the absence of a basic concept and standards of entrepreneurial training in bachelor’s and master’s degree curricula. As a consequence, universities and colleges do not have basic syllabi targeted at forming the corresponding competencies in graduates (Rubin 2015). “The map of higher education institutions activity in the sphere of entrepreneurship education”, based on the study of 978 university websites and phone interviews with the university representatives, marks out 277 higher education institutions which exhibit activity in one of the three indicators: the presence of majors in entrepreneurship, presence of educational activities aside the curricula (seminars, competitions, etc.) and presence of infrastructure supporting entrepreneurship (business incubators, etc.). The model of syllabus research included fixation of disciplines forming universal soft skills, mindset and routine instrumental hard skills in professional entrepreneurship. The research also shows that short-term state-funded syllabi form a significant part of the syllabi market for first-time and experienced entrepreneurs (Baboshin 2015).

There are two opposite points of view in the discussion about defining the determinants of leadership and entrepreneurship education. According to one of them, leaders and entrepreneurs are born rather than made; according to another, they are rather made than born. B.V. Kaygorodov emphasises that leadership and entrepreneurship is a derivative or one of the results of social development and evolution of an individual, i.e. socialisation process (Kaigorodov 2010). Entrepreneurship can be regarded as a socioeconomic institute inherent with specificity of psychological mindset of individuals engaged in business activities. In this cases entrepreneurial competencies include higher risks, innovativeness and proactivity connected with starting up and running a business (Franovskaja 2013). The author cites opinions expressed by well-known entrepreneurs and researchers of entrepreneurship (e.g. Richard Branson, Anthony A. Gribben, Daniel Isenberg, etc.) stating that one can be trained to become an entrepreneur. As Richard Branson mentions, “entrepreneurial success depends on quite an unusual combination of personal qualities and instinctive skills, most of which can be polished in the process of work and training...” (Franovskaja 2013).

M.Kh. Gatiyatullin scrutinises *entrepreneur’s personal and professional qualities and competencies*, dividing them into blocks. Intellectual block includes the combining ability, well-developed imagination, creative fantasy, productive

intuition and perspective thinking. Communicative block is formed by the talent to coordinate employees' efforts, ability to put one's thoughts in a brief and clear manner, readiness for tolerant communication with other people and, at the same time, ability to professionally hold one's ground using arguments. Motivational and volitive block encompasses the capability of making responsible decisions in the risk zone, ability to control the situation, commitment to clearing of obstructions, self-actualisation and public acceptance need and preponderance of achievement motive over motive to avoid failure (Gatiyatullin 2009).

Ye.P. Sulaeva considers entrepreneurial competencies as the following skills: to resort to innovations in both standard and non-standard situations, generate ideas turning them to new technologies with the aim to acquire income, quickly evaluate all forms of innovations, take risks, be able to control risks and be ready to take over the responsibility (Sulaeva 2011). Ye.A. Serebrennikova also believes that the notion of "entrepreneurial competency" needs further explication (Serebrennikova 2014).

Experts and specialists single out possession of leadership qualities as one of the entrepreneurial competencies playing a serious role for the success of business projects. Such components of a personality as interpersonal skills, leadership, desire and ability to implement entrepreneurial and leadership potential, conflict resolution and conflict management, i.e. having a developed social competency, allow to mark out the necessary skills and abilities, enabling self-fulfilment of a leader and entrepreneur. These qualities are regarded as necessary along with professional competencies, such as excellent general and professional qualification, developed emotional intelligence and ability to comprehend and analyse the cluster for starting up their own business (Kajgorodov 2010). Leadership can be regarded as one of the "soft" competencies, which come at the fore when training future entrepreneurs (teaching motivation, leadership, management, teamwork, time management, presentation skills, salesmanship and personal development). Demand for leaders having given competencies is evergrowing in the dynamically developing society (Kljuev and Jashin 2016).

Leadership can be developed in an individual. According to B.D. Kaygorodov and V.D. Nikolaenko, leaders and entrepreneurs having certain standards in their activity do not put pressure on people making them reach certain standards but "draw" them into such activity, corresponding to these standards (Kajgorodov and Nikolaenko 2011). Ye.Ye. Orekhova analyses the importance of leadership qualities for an entrepreneur based on the experts' opinions. She claims that a successful entrepreneur should have at least several leadership qualities. An entrepreneur should have the following strengths: creativity, risk appetite, readiness for decision-making, visionary thinking and the ability to gather the right people (Orekhova 2014).

Having scrutinised the professional standard of managers on various levels, V.A. Spivak emphasises the fact that "business acknowledges the prospects and usefulness of using leadership as a competency of a manager on any level and perceives generation of productive commands as a factor of enhancing the efficiency of performance of an organisation". This conclusion is also substantiated by the set

of competencies in FSES-3 (Federal State Education Standards in Russia). Bachelor of Management should possess, among other competencies, the ability to effectively organise teamwork based on the knowledge of group dynamics and principles of team building; ability to analyse and plan interpersonal, group and organisational communication; and ability to use fundamental theories of motivation, leadership and governance for solving managerial tasks (Spivak 2012).

As stated by the European Parliament, leadership skills are included in the list of qualities that should be displayed by a graduate of an entrepreneurship training programme. These are the ability to manage, lead people, take up the running, be proactive, self-independent and innovative in personal and social life and at work, motivate the others and be motivated and decisive in achieving goals. These qualities are necessary along with the ability to see the opportunities for activity, knowledge of infrastructure and situation on the labour market, following ethical principles of enterprises and entrepreneurs and ability to evaluate the situation, defining strengths and weaknesses and taking risks (Tereshhenko et al. 2017).

Providing a generalised characterisation of entrepreneurial leadership skills, Yu. B. Rubin emphasises that “their goal is involving people in their personal business – directly or indirectly, explicitly or implicitly, formally or informally – all people and organisations whose professional competencies could be useful for their activity” (Rubin 2012).

Analysis of scholarly publications allows to draw a conclusion that a combination of entrepreneurial and leadership competencies marked out by various authors can be different, but most of the authors single out similar groups of competencies. The given conclusion allows to suppose that the group of entrepreneurial competencies formed within the framework of the project is sufficient for forming curricula and evaluation systems for these competencies. It can also be regarded as comparable with the competencies intrinsic to a successful leader.

3 Research Methods

The first stage can be characterised as descriptive. Within the practical part of the research, we utilised sociological survey methods. Expert interviews with teachers included such blocks of indicators as relevance of entrepreneurship education, concept of entrepreneurship education, methods of entrepreneurship education, differentiation of entrepreneurship competencies based on their importance, discourse on the possibility of developing entrepreneurial and leadership competencies in the education courses, necessity to develop a number of entrepreneurial and leadership competencies and motivation for participation in education and practical courses developing these competencies. A unified list of competencies was used to elucidate the importance of leadership and entrepreneurial competencies.

4 Teaching Entrepreneurship and Competencies: Analysis of Expert Interview Results

Instructors having different employment history and work experience, various basic education and research degrees took part in the survey conducted within the framework of the EU international project “READY for business: Integration and Evaluation of the Practical Entrepreneurial Skills in Engineering and ICT Sciences – Rebus”. Respondents have been included in business education programmes (management, economics, law, teaching or working in business incubators).

The question about the necessity to teach entrepreneurship was answered with a “yes”, and the respondents highlighted it as relevant, important and necessary. According to experts, it is necessary to enhance the availability of the training courses developing entrepreneurial competencies. Respondents noted that the system of education offers inefficient courses, whereas the cost of training in specialised organisations is too high. In the present training courses, there is a palpable lack of practice-oriented modes of study in this direction. Development of entrepreneurial skills is possible thanks to engaging students in real work with the corresponding salary level, promoting success stories and establishing business schools.

Support of entrepreneurial education concept by the authorities is crucial. It should be done via making amendments to the education act, legislative initiatives, investing and organising contests to solve real-life problems and encouraging in-person participation of successful business representatives of business in the process of education. A university has to run business on its own through managing contract work with the interested enterprises.

Entrepreneurship training can be organised just like in any other major field of study but predominantly through business role-playing games, obligatory participation in business projects, close collaboration with practices and their participation in training process, regardless of the academic ranks and degrees. This can be funded by the university, either through the cofinancing system or even patronage by the practitioners. These could be extracurricular entrepreneurship training courses, including those within the framework of the chosen professional profile.

Venue and teaching techniques can be most diverse. Techniques are to be formed in training process; it is important for this to be teaching in action, in the form of concrete projects such as technological parks, business incubators and enterprises. One must observe the necessary balance of theory, practice and laboratory study. Technologies comprise distance learning, traditional learning with the use of technologies developing administrative labour productivity, teaching by doing, fora, round tables, online conferences, internships aimed at gaining experience, mentoring, case studies and immersion. Modern technologies developing administrative labour productivity are the most important for success and attractiveness of entrepreneurship training.

Evaluation of entrepreneurial competencies can be organised in the same way as with other competencies: through comparing indicators of training results with the assessment tools data, observation by experts and practitioners and increase in the

indicator of competencies formedness in the process of practical activity. Documenting can be implemented through the developed model of an “entrepreneur with the scale of competencies completeness” and certification.

Analysis of the expert interviews allows to draw a conclusion that instructors see the requirement for creating courses developing entrepreneurial and leadership competencies. They also have a sufficiently clear insight into their organisation, training technologies and techniques. Respondents are not familiar with the concept of validation of these competencies and verification criteria employed in the European Union.

5 Leadership and Entrepreneurial Competencies: Analysing the Survey Findings

The goal of the survey among students was to elucidate their view of significance of separate entrepreneurial and leadership competencies and interconnections among them. Eight hundred forty-six respondents, students of engineering and technology, mathematics, computer science, physics, civil engineering, pedagogy, social sciences and humanities, geosciences and biology in Novosibirsk, Russian Federation, took part in the survey. Respondents were undergraduate students of all grades (1st, 2nd, 3rd and 4th), as well as graduate and postgraduate students of higher education institutions, 58.87% of these were male students and 41.13% were female students.

Within the framework of the project “READY for business: Integration and Evaluation of the Practical Entrepreneurial Skills in Engineering and ICT Sciences – Rebus”, we singled out a block of key competencies that a successful entrepreneur should display. Entrepreneurship and leadership have a close interconnection; therefore, key competencies of an entrepreneur are also peculiar to leaders. Students were supposed to choose the most important and the least important competencies from the list of 15 (Fig. 1) for an entrepreneur and leader in any sphere of professional activity.

Respondents consider working with others, planning and management and motivation and perseverance to be the most important leadership competencies. As for entrepreneurial competencies, emphasis is placed on financial and economic literacy, motivation and perseverance and vision and creativity.

According to students, coping with ambiguity, uncertainty and risk, ethical and sustainable thinking, self-awareness of efficacy and learning through experience are the least important competencies for an entrepreneur. For a leader these are coping with ambiguity, uncertainty and risk, learning through experience, ethical and sustainable thinking and mobilising resources. Motivation and perseverance are included by students in the nucleus of both entrepreneurial and leadership competencies. Least important leadership and entrepreneurial competencies, as seen by students, almost concurred.

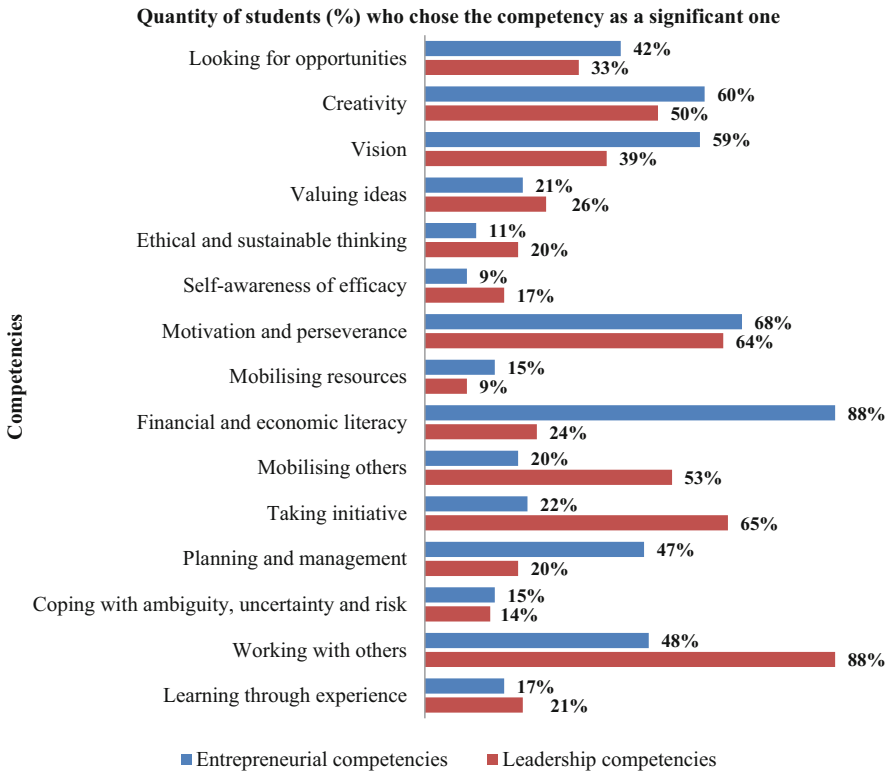


Fig. 1 The most important competencies for persons who have an entrepreneurial mindset

Opinions in the discussion about whether it is possible to develop entrepreneurial and leadership competencies within the framework of training courses were distributed in the following way (Fig. 2). There were 15% of doubters and skeptics among the respondents. Nineteen percent evaluate such a possibility absolutely positively. Sixty-six percent of respondents consider that leadership and entrepreneurial competencies can be developed to some extent. Respondents would like to develop such competencies as financial and economic literacy, motivation and perseverance and creativity in the first place (Fig. 3).

After the students singled out top-priority competencies for their self-development, they were offered to review the remaining list and choose competencies they would also like to develop themselves. Virtually all of the competencies were chosen by students. Such competencies as looking for opportunities and creativity turned out to be priorities. Ethical and sustainable thinking can be designated as one of the competencies which have become more required recently due to the emerging new opportunities on the labour market and change of the set of values in the professional activity. Students give lower priority to valuing ideas, eliminating unnecessary risk and mobilising resources than other competencies, although these

Fig. 2 Can one develop entrepreneurial and leadership competencies within training courses?

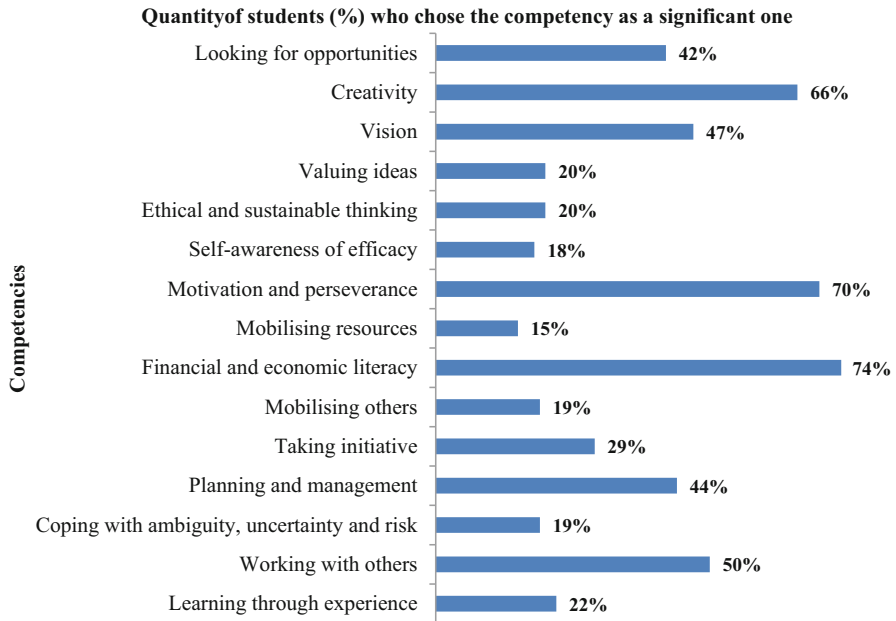
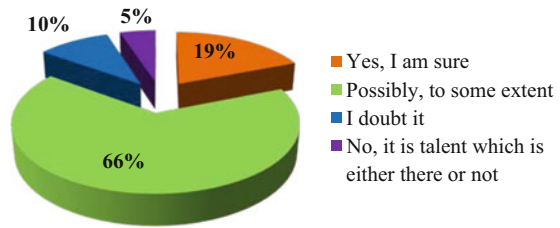


Fig. 3 What competencies would you like to develop yourself?

competencies contribute towards effective project work. Opinions regarding the importance of certain competencies are highly dependent on personal qualities of the one expressing them. Therefore assessment of students’ competencies before and after the period of training and teaching special courses is an important aspect in teaching entrepreneurship and developing leadership potential. Development of the given procedure on Russian professional labour market is only beginning. The system of education may require additional processes of reorganisation aimed at incorporating individual approach in teaching.

One of the goals of the survey was to elucidate the degree of students’ motivation to take part in training courses to develop leadership and entrepreneurial competencies (Fig. 4). One third of students displayed a high level of motivation for participating in training courses capable of enhancing their competencies in leadership and entrepreneurship. 22.46% doubt that this can be of service in their professional

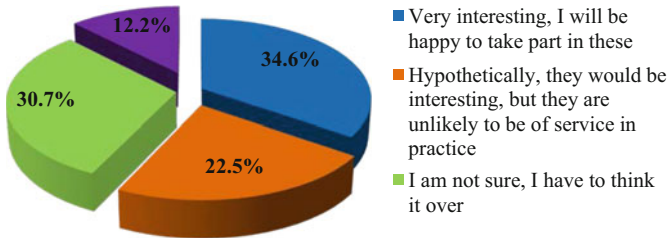


Fig. 4 Would these training courses be interesting for you?

activity. Almost a third of students (30.73%) have still not considered this option, whereas 12.17% respondents displayed no interest in the courses.

In general, awareness of the respondents can be considered sufficient for making competent and interested statements on the given issues of entrepreneurship and leadership.

6 Conclusions

Our research was based on the conducted survey that allowed us to single out requirements for teaching entrepreneurship and developing leadership competencies, deficit of entrepreneurship education offers in Russia, causes of difficulties, measures for improving entrepreneurship education in universities and possibilities of integrating business sector with universities.

Instructors see the necessity to develop entrepreneurial and leadership competencies in students but are not familiar with the systems of grading these competencies. Fact-finding exercises and pilot courses explaining systems of grading the competencies in these fields are necessary for instructors.

Moreover, assessments of the significance of the competencies, necessary for successful entrepreneurial activities and leadership, are different in students' perception. When organising training courses aimed at development of leadership and entrepreneurial competencies, one must consider the fact that students' expectations from such courses will be based on enhancing competencies important for them. At the same time, it is necessary for an instructor to show the significance of the whole block of key competencies to the students, as well as interconnection of these competencies and opportunities for assessing and developing these competencies, along with the dynamically developing requirements of the labour market.

Overall, it seems that the task of forming entrepreneurial and leadership competencies in students represents a set of consecutive decisions aimed at activation of creative thinking, engaging students in innovative processes in education and searching for tools of enhancing students' motivation for acquiring new knowledge.

All in all, it appears that Russian academic community is ready for integration with business and assessment of practical entrepreneurial and leadership skills, not excluding science and engineering.

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Leadership in Production: A Case Study of Soft Drinks



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Abstract This article is devoted to the leadership trends in production of soft drinks in Russia. Specifically, it provides a comprehensive study of the usage of raw materials for the development of recipes of Russian national drinks of an antioxidant orientation. Traditional Russian beverages which include natural ingredients (honey, spices, and herbs) take one of the leading places on the market of soft drinks. Therefore, the development of nonalcoholic beverages based on local plant raw materials is one of the promising directions for expanding the range and increasing the nutritional value of beverages. The aim of the work is scientific justification of the formulation and technology of sbitens of antioxidant orientation on the basis of vegetable raw materials in Sverdlovsk Region and their evaluation. The paper presents the composition of biologically active components of plant raw materials of the Ural region, used in the development of compositions of sbitens “Forest Fairy Tale.” The objects of the study are rose hips (*lat. Fructūs Rosae*), nettle (*lat. Urtica dióica*), raspberry leaf (*lat. Folia Rubi idaei*), oregano ordinary (*lat. Oríganum vulgáre*), yarrow (*lat. Achilléa millefólium*), thyme (*lat. Thymus serpyllum* L), a leaf of bearberry (*lat. Arctostáphylos úva-úrsi*), apples of Ural selection (*lat. Málus*), and the fruits of mountain ash (*lat. Fructus Sorbi aucupariae*). Sbitens with high antioxidant activity were scientifically proven. The determination of antioxidant activity of the beverages was carried out by the potentiometric method based on the “chemical interaction of antioxidants with a mediator system, which uses a mixture of $K_3[Fe(CN)_6]/K_4[Fe(CN)_6]$ ”. There was determined the dependence of the organoleptic and physicochemical parameters of sbitens from the quantity of vegetable raw materials, the optimal correlation of fruit, and medicinal and technical raw materials. The safety of biologically active substances in the developed sbitens was studied. High stability of bioactive compounds during storage (with the necessary margin of safety) was observed. By the end of the storage period, the content of ascorbic acid in the drink is 47% of the original, which allows meet the daily requirement of only 45.2%. The content of catechins is 69% of the original, which meets the daily requirement of

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70%. This allows recommending sbitens as a restorative beverage of antioxidant orientation for all categories of consumers. The dynamics of changes in consumer properties during production and storage of products was studied, thus establishing the regulated quality parameters and determining the shelf life which is 6 months.

1 Introduction

One of the most important tasks facing the agro-industrial complex of Russia (as well as of many other countries in the world) is to provide the population of the country with quality and safe food. This task, in its turn, is a part of the problem of implementing the state program for ensuring the state's food and energy security (Mishra and Singhania 2014; Lisin et al. 2016).

The main factors that oppress the protective functions of humans include the state of the environment: living in anthropogenically polluted habitats which is typical, first of all, of the population living in large cities which is problematic not only for Russia (Jiroudková et al. 2015; Avseeva and Volokhova 2015). In the combination of the SNA factor, the unfavorable ecological situation leads to a decrease in immunity, a permanent deficit of macro- and microelements, and the impact of emotionally depressive and allergenic factors that can be combined under the term "megapolis syndrome" (Damodaran et al. 2012; Kant and Graubard 2004; Kisileva 2014; Kudryasheva 2014).

Today the theory of *adequate* nutrition, put forward by scientists of the twentieth century and consisting in the correct selection of macro elements, fats, proteins, and carbohydrates in the diet of the Russian population, is not effective enough. The realities of modern life dictate a transition to the theory of *optimal* nutrition, in which a large role is played by minor components of food, essential substances capable of participating in metabolism, regulating a number of biochemical reactions, and participating in the synthesis of nucleic acids. It is the combination of two nutrition concepts in the development of nonalcoholic beverages that will make it possible to select the necessary direction when modeling them. "Scientists of many countries, including Russia, consider non-alcoholic beverages as the optimal form of food products consumed to meet the needs of the human body in biologically active substances" (Stowne and Sidel 1993; Peyrat-Maillard et al. 2000; Earle and Earle 2010; Moskalenko and Yevsieieva 2015).

The main method of enriching food raw materials is the introduction of physiologically functional food ingredients into the products of mass demand. For this, as a rule, ingredients derived from local plant raw materials, mineral and vitamin complexes, prebiotics and probiotics, minor components, and essential substances are used, which make it possible to integrate theories of adequate and optimal nutrition and to choose the most promising direction in modeling beverages with specified properties (Zavorohina 2014; US Department of Agriculture 2011).

For the last several years, the main direction of scientific research in the nonalcoholic sector has been the creation of beverages for mass consumption on a

natural basis adding sugar, as well as juices, infusions, essences, compositions of fruit, berries, and other vegetable raw materials, food acids, and dyes (Earl 2004; Earle and Earle 2010; Zavorohina 2014).

One of the directions in improving the assortment and formulation of beverages is the use of natural plant raw materials, with the aim of obtaining beverages enriched with natural functional ingredients which possess general strengthening as well as therapeutic and prophylactic properties (Resurreccion 1998; Chugunova and Solovyov 2011; Marketing Research 2017).

Recently, there has been an increase in interest in Russian traditional cuisine; thus, the development of national soft drinks on the basis of local plant raw materials is one of the promising directions for expanding the range and increasing the nutritional value of beverages. According to GOST 52409–2005, national nonalcoholic beverages include kvass, mors, sbiten, voditsa, and vzvar (Zavorohina 2014; Kudryasheva 2014).

2 Materials and Methods

Traditional kinds of food raw materials and auxiliary materials with certificates of conformity, quality, and safety were used in the work. The quality and safety indicators of all types of raw materials met the requirements of regulatory documentation. The objects of research were rose hips (*Latin Fructus Rosae*), nettle (*Latin Urtica dióica*), raspberry leaf (*Latin Rubi idaei folia*), oregano ordinary (*Latin Origanum vulgáre*), yarrow (*Latin Achilléa millefólium*), thyme (*Latin Thymus serpyllum* L), bearberry leaf (*Latin Arctostáphylos úva-úrsi*), apples of Ural selection (*Latin Málus*), and fruits of the mountain ash (*Fructus Sorbi aucupariae*) (Turyshev et al. 2013; Chugunova 2012).

The main physicochemical indicators of the quality of plant raw materials are presented in Tables 1 and 2.

In the course of work, generally accepted and special methods of research were used. In fruit and berry and medicinal-technical raw materials, the sum of bioflavonoids equivalent to rutin was determined by spectrophotometric method after carrying out the complex formation reaction with aluminum chloride at $\lambda = 410$ nm (Ermakov et al. 1987; Dergunova et al. 2011; Abramov 2011). The

Table 1 Physicochemical parameters of dried fruit and berry raw materials ($n = 3$)

Name of raw material	Humidity, %	Mass content of total ash, %	Mass content of impurity, %
Apples “Sontsedar”	14.5 ± 1.0	2.7 ± 0.012	0.017 ± 0.0025
Apples “Dachnaya”	14.6 ± 1.0	2.7 ± 0.012	0.015 ± 0.0029
Cinnamon rose	13.4 ± 1.0	1.4 ± 0.02	0.034 ± 0.0012
Mountain ash	14.2 ± 0.5	2.6 ± 0.04	0.019 ± 0.002

Source: Own results

Table 2 Physicochemical parameters of dried medicinal raw materials ($n = 3$)

Name of raw material	Humidity, %	Mass content of particles not passing through a 7 mm diameter sieve, %	Mass content of impurity, %
Thyme	10.8 ± 0.019	1.5 ± 0.015	0.051 ± 0.0045
Oregano ordinary	11.4 ± 0.023	2.6 ± 0.076	0.037 ± 0.0028
Peppermint	10.3 ± 0.034	–	0.029 ± 0.0021
Yarrow ordinary	10.2 ± 0.051	1.35 ± 0.025	0.056 ± 0.0024
Urtica	11.5 ± 0.094	–	0.034 ± 0.0037
Raspberry ordinary (leaf)	10.4 ± 0.049	–	0.022 ± 0.0014
Bearberry ordinary (leaf)	11.7 ± 0.043	1.4 ± 0.012	0.023 ± 0.0011

Source: Own results

sum of tanning agents equivalent to tannin was determined by the method of visual titration with a solution of potassium permanganate in the presence of indigo sulfonic acid (Earle and Earle 2010); the content of ascorbic acid (the sum of ascorbic and dehydroascorbic acid) was determined by indophenolic titration method with 2,6-dichlorophenolindophenol (Ermakov et al. 1987; Dergunova et al. 2011). The total content of amino acids is determined by the method of ion-exchange chromatography on the T 339 amino analyzer. The resin OSHINFa (Czech Republic) was used in the course of work. The total amino acid composition was determined in the hydrolysates after acidic hydrolysis of the product under standard conditions (24 h at 110°C 6N HCl) (Ministry of Health of the USSR 1987; State Pharmacopoeia of the USSR 1989). Identification of amino acids was carried out in comparison with standard solutions; content of pectic substances in fresh fruit and vegetable raw materials and dried semi-finished products was determined by titrimetric method according to GOST 29059 (Earl 2004). The total content of organic acids in beverages was determined by the titrimetric method in accordance with GOST 6687.4-86 and GOST 5624-63; the content of pectic substances in fresh fruit and berry raw materials, dried fruit and berry raw materials, and ready-made beverages was determined by the titrimetric method in accordance with GOST 2905. Determination of the antioxidant activity of drinks was carried out by potentiometric method based on the chemical interaction of antioxidants with a mediator system, which uses $K_3 [Fe(CN)_6]/K_4 [Fe(CN)_6]$, which is a combination of oxidized and reduced compounds of variable valence elements capable of reversible oxidation reduction. According to the Nernst equation, the potential E_1 , mV, of such a system is determined by the correlation of the oxidized and reduced forms of the mediator system:

$$E_1 = E_0 + \frac{RT}{nF} \ln \frac{C_{ox}}{C_{red}} \quad (1)$$

When introduced into such a system of the test sample, the antioxidants contained in the sample restore the oxidized form of the mediator system, thereby changing the

correlation of the oxidized and reduced forms. As a result of this interaction, the potential of the system changes. The expression for the potential, E_2 , mV, can be written in the following form:

$$E_2 = E_0 + \frac{RT}{nF} \ln \frac{C_{ox} - C_x}{C_{red} + C_x}, \quad (2)$$

where E_1 , E_2 are the potentials established in the system before and after the introduction of the test sample, mV;

E_0 – standard potential of the mediator pair, mV

C_{ox} – concentration of the oxidized form of the mediator, mmol-eq/dm³

C_{red} – concentration of the reduced mediator form, mmol-eq/dm³

C_x – concentration of antioxidant, mmol-eq/dm³

R – universal gas constant, J/(mol × K)

T – temperature, K

F – is the Faraday number (96,485 C/mol)

Therefore, the potential shift of ΔE , mV after the introduction into the mediator system of a certain amount of antioxidants C_x , mmol-eq/dm³, can be mathematically expressed as follows:

$$\Delta E = |E_1 - E_2| = \frac{RT}{nF} \ln \frac{C_{ox}(C_{red} + C_x)}{C_{red}(C_{ox} - C_x)}. \quad (3)$$

Using Eq. 3 and having measured the potential shift ΔE , mV using the instrument, we can calculate the concentration of antioxidants C_x , mmol-eq/dm³ in the cell:

$$C_x = \frac{C_{ox} - C_{red} \times f}{1 + f} \times V, \quad (4)$$

where

$$f = e^{\frac{E_1 - E_2}{k}}, \quad (5)$$

$$k = 0.0821 \times (t + 273), \quad (6)$$

where

E_1 и E_2 – measured potentials, mV

V – sample dilutions ($V_{cells}/V_{samples} = 50$)

t – temperature, °C

The assembly for direct potentiometric measurements includes a multifunction potentiometric analyzer MPA-1, and an electrochemical cell into which the test solution is poured and the thermal sensor and electrodes are immersed; the indicator electrode determines the AOA and the reference electrode is mounted in the tripod.

Adding solutions containing substances, which exhibit antioxidant activity, to the electrochemical cell leads to a change in the oxidation-reduction potential of the medium as a result of the interaction of antioxidants with the oxidized component ($K_3[Fe(CN)_6]$) of the mediator system (Damodaran et al. 2012).

To conduct comparative tasting of the modeled beverages, modern methods of tasting analysis were used: the formation of taste-aromatic profiles of beverages, point method and flavor profile methods according to ISO 6564), and determination of the optimal amount of the flavor additive – duo trio duo trio (ISO 10399: 2004 “Sensory analysis – Methodology – Duo-trio test”) and paired comparison (ISO 5495: 2007 “Sensory analysis – Methodology – Paired comparison test”) and drink color according to GOST ISO 11037-2013. In determining the degree of precision, reproducibility, and convergence of the results of tasting assessments, GOST R ISO 5725-02, GOST R ISO 5725.1-02, GOST R ISO 13528-10, and GOST R 52522-05 were used.

Modeling the composition of nonalcoholic beverages was guided by norm MR 2.3.1.1950-04 of 02.07.2004 entitled “Rational nutrition. Standards of Physiological Needs for Energy and Nutrients for Different Groups of Populations of the Russian Federation” as well as by the norms MP 2.3.1.2432-08 and MP 2.3.1.1915. The recommended standards hold true for the consumption of food and biologically active additives.

3 Results

For many years, the Ural State University of Economics has been the leader engaged in the development of recipes and technology products with specified consumer properties on the basis of natural raw materials (Chugunova 2012). The purpose of this study is the investigation of medicinal and technical raw materials containing high nutritional value, with the possibility of using it as a raw ingredient for the production of nonalcoholic beverages of antioxidant orientation. Antioxidant activity is an indicator that reflects the total effect of substances containing antioxidant properties. Since the method of direct oxidation-reduction potentiometry does not allow evaluating in quantity the content of antioxidants in the test sample, it is therefore difficult to conclude which product is low in antioxidant activity and which one is high.

One of the most common antioxidants of food products is ascorbic acid. Therefore, the antioxidant activity of ascorbic acid solutions is taken as a standard when evaluating the antioxidant activity of beverages. Solutions with an ascorbic acid content of 90 mg in 200 cm³ of water were prepared, which corresponds to the daily requirement of an adult in this vitamin (Brainin and Ivanov 2004). Moreover, solutions with an ascorbic acid content of 450 mg in 200 cm³ of water and 900 mg in 200 cm³ of water were prepared. For the analysis, ascorbic acid from the pharmaceutical company Merck, Germany, was taken. The results of the measurements are shown in Table 3.

Table 3 Results of measurement of antioxidant activity of ascorbic acid solutions, mmol-eq/dm³

Sample	Antioxidant activity
Ascorbic acid 90 mg/200 cm ³	4.18 ± 0.08
Ascorbic acid 450 mg/200 cm ³	22.64 ± 0.78
Ascorbic acid 900 mg/200 cm ³	45.32 ± 0.70

Source: Own results

According to Table 3, the increase in antioxidant activity is directly proportional to the increase in the concentration of ascorbic acid.

Thus, conclusions about the high or low antioxidant activity of fruit and berry beverages will be made with respect to the antioxidant activity of ascorbic acid solution with a content of 90 mg in 200 cm³, which corresponds to an antioxidant activity value of 4.18 mmol-eq/l.

In the development of recipes, the complex use of plant raw materials with the study of its active ingredients and minor components that ensure the directed functional properties of drinks based on them is of great importance.

The results of monitoring (2013–2016) of the content of polyphenols, pectic substances, and ascorbic acid in medicinal and technical raw materials growing on the territory of the Sverdlovsk Region allow us to conclude that all types of raw materials under investigation can be used in the production of national nonalcoholic beverages of antioxidant orientation (Table 3).

The highest content of ascorbic acid and, consequently, antioxidant effect was found in rose hips (up to 1.5%), nettle (0.18%), and raspberry leaf (0.12%); the content of polyphenols (bioflavonoids) was found in fruits of ordinary mountain ash (0.7%), oregano ordinary (0.25%), and raspberry leaf (0.19%); the content of organic acids was found in rose hips (3.11%) and yarrow (1.43%); and the content of amino acids was found in mountain ash (2.52%) and thyme (0.6%) (Table 4).

Pectic substances are considered to be important components of the chemical composition, the fruit-berry, and the medicinal-technical raw materials under study. Pectic substances have the ability to participate in the metabolism of the human body, bind heavy substances and radionuclides, and remove them from the body. It has been established that the content of protopectin in the raw material under study is much higher than the content of soluble pectin; thus the content of pectin in apples of Ural selection in % for dry weight is 8.5%, in cinnamon rose, 12.3%, and in mountain ash, 14.0%. In turn, medicinal and technical raw materials are less rich in pectic substances – thyme, 2.1%; oregano, 1.87%; mint, 6.2%; yarrow, 6.4%; and nettle, 6.7%.

The raw materials under study have antioxidant properties, and the highest antioxidant activity was recorded in rose hips – 11.1 mol.eq./dm³, the lowest in the bearberry leaf 2.15 mol.eq./dm³. However, the bearberry leaf, due to the tannins contained in the leaves, has an astringent effect on the gastrointestinal tract. The presented data determine the possibility of using the investigated plant raw material to produce beverages with high organoleptic properties and physiological value, including functional drinks.

Table 4 The content of biologically active components in dried fruit and berry and medicinal-technical raw materials ($n = 5$)

Name of raw material	Ascorbic acid, mg/100 g	Total content of bioflavonoids ^a , mg/100 g	Organic acids, %	Total content of amino acids, mg/100 g	Tanning agents ^b , %
Fruit and berry raw material					
Apples of “Sontsedar” selection	11.7 ± 1.4	176 ± 21.2	0.86 ± 0.04	1858.9 ± 15.7	0.071 ± 0.0028
Apples of “Dachnaya” selections	18.9 ± 1.3	292.8 ± 26.7	1.14 ± 0.01	1857.2 ± 14.3	0.057 ± 0.0014
Fruits of rose hips	1537 ± 0.41	455 ± 11.5	3.11 ± 0.1	3521.1 ± 21.5	4.52 ± 0.36
Fruits of mountain ash	96.4 ± 2.3	720.6 ± 18.9	1.8 ± 0.1	4529.5 ± 34.6	0.28 ± 0.019
Medicinal and technical raw material					
Thyme	164.7 ± 0.4	2019.6 ± 0.4	0.97 ± 0.02	99.44 ± 3.3	3.95 ± 0.024
Oregano ordinary	140.2 ± 0.5	7514.8 ± 0.3	1.24 ± 0.3	99.32 ± 2.3	1.65 ± 0.45
Peppermint	0.4 ± 0.02	1924.1 ± 0.6	0.78 ± 0.04	97.92 ± 1.4	4.25 ± 0.031
Yarrow ordinary	89.3 ± 0.3	1659.8 ± 0.1	1.43 ± 0.1	98.48 ± 2.1	3.81 ± 0.044
Nettle	185.3 ± 0.2	1821.4 ± 0.2	1.13 ± 0.1	99.00 ± 1.5	7.31 ± 0.064
Bearberry				58.72 ± 1.4	28.65 ± 1.4

Source: Own results

^aEquivalent to rutin^bEquivalent to tannin

4 Discussion of Results

Understanding the composition of biologically active components of plant raw materials, its antioxidant activity, allows us to evaluate the prospects for its use as an ingredient in nonalcoholic national beverages of mass consumption. Based on the results of the studies, the formulations of national nonalcoholic beverages sbitens based on vegetable raw materials have been modeled. Sbiten is a Russian national soft drink containing not less than 3% of honey, with addition of vegetable raw materials and natural sugar-containing substances (Damodaran et al. 2012; Yashin and Yashin 2010).

The original recipes for sbitens – No. 1 “Warm Evening,” No. 2 “Honey cool,” united under the trademark “Forest Fairy Tale” – were developed. These drinks have an increased nutritional value and high organoleptic indices, as well as directed antioxidant and immunomodulating action due to introduction of natural plant raw material into the recipe (Chugunova and Solovyov 2011). In the compositions for the sbitens of the “Forest Fairy Tale” series, there are included infusions of dried medicinal and

technical raw materials: peppermint, nettle, thyme, oregano, and yarrow, containing a significant number of flavonoids, phenolic acids, and tannins with P-vitamin activity, ascorbic acid, which is a synergist of substances of phenolic nature.

The decoction of the fruits of apples and rose hips gives the drink a harmonious fruit flavor, the infusion of mountain ash fruits introduces astringency and pleasant bitterness into the composition, and the aroma of mint and thyme favorably combines with the honey tonality (Earl 2004; Schaafsma and Korstanje 2004).

The composition of the sbiten “Warm Evening” has marked antiseptic and restorative properties due to the yarrow ordinary (which has anti-inflammatory, antimicrobial, antiallergic, astringent properties); oregano ordinary (calms the nervous system, has a restorative, analgesic effect); thyme (has a marked expectorant property, promotes liquefaction of sputum, with a dry lesion of the mucous membranes of the throat and larynx, has an enveloping effect); raspberries leaves (are used as astringent, anti-inflammatory agent); Bashkir honey (is a powerful diaphoretic agent, calms the nervous system, replenishes the lack of vitamins in the body, helps to cope with infectious diseases); rose hips (are used for anemia, acute and chronic infections); fruits of mountain ash (are rich in vitamins, minerals, and other valuable substances); and fruits of apples (stimulate metabolic processes, are rich in vitamins, minerals, and pectic substances) (Schaafsma and Korstanje 2004; Mikhailova et al. 2013).

The composition of the sbiten composition “Honey cool” includes leaves of nettle (has antitumor, regenerative, and anti-stress activity), a peppermint leaf (contributes to the normalization of liver function, gastrointestinal tract, has antiseptic, soothing properties) and a leaf of bearberry (has disinfectant and anti-inflammatory properties, stabilizes digestion, has marked bactericidal and anti-inflammatory properties).

The quantitative content of ingredients in the composition was determined by taking into account the organoleptic compatibility and functional properties of LTS and fruit and berry raw materials. When modeling drinks, it was considered that the sugar content should not exceed 7.5% and the acidity should be in the range of 2.0–3.0 ml 01, M NaOH, of 100 ml of the titrate beverage. This balance of sweetness and sourness in combination with herb and honey and fruit notes allowed developing a drink with the most harmonious flavor and a long pleasant aftertaste. Figure 1 that follows presents the comparative flavor and aromatic profiles of the sbitens developed.

As it can be seen in Fig. 1, all samples have an attractive appearance and are transparent with glitter, without sediment and opalescence (Zhao et al. 2005). The organoleptic and physicochemical indices of the developed sbitens were studied; the dynamics of changes in organoleptic and physicochemical parameters during storage was studied. The beverage was packaged in PET bottles with a capacity of 0.5 dm³, was tightly packed, and was stored for 7 months (with a safety coefficient of 1.15) at a temperature of 18 ± 2 °C and a relative humidity of 75%. The results of studies of the quality indicators of sbiten “Forest Fairy Tale” during storage are presented in Table 5.

It is established that the sbiten “Forest Fairy Tale” preserved high consumer properties during the entire storage period. The microbiological and safety indices

Fig. 1 Flavor profiles of the developed sbitens (Source: Own results) (a) “Honey cool” (blue contour). (b) “Warm evening” (red contour)

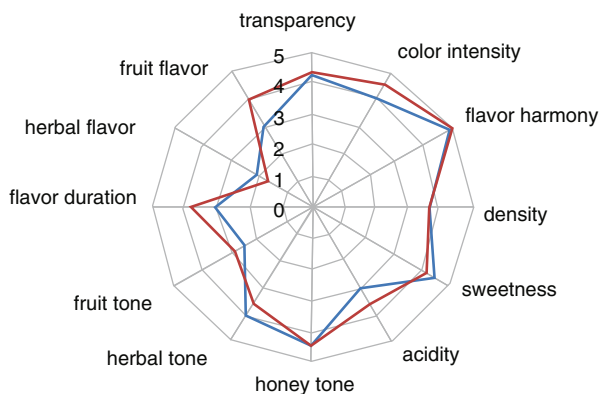


Table 5 Quality indicators of the sbiten “Forest Fairy Tale” during storage ($n = 5$)

Name of index	Storage duration, month				
	0	2	4	6	7
Appearance and color (min-1.0; max-2.0, points)	2.0 ± 0.01	2.0 ± 0.01	1.9 ± 0.01	1.9 ± 0.01	1.9 ± 0.049
Taste (min-1.5 max 2.0), points	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.01	2.0 ± 0.054
Flavor (min-0.5 max 1.0), points	1.0 ± 0.01	1.0 ± 0.01	1.0 ± 0.01	1.0 ± 0.01	1.0 ± 0.01
Mass content of soluble solids, %	14.2 ± 0.1	14.2 ± 0.1	14.2 ± 0.1	14.1 ± 0.1	14.1 ± 0.1
Acidity, cm ³ solution NaOH 1 mol/dm ³ on 100 cm ³	3.4 ± 0.024	3.4 ± 0.017	3.5 ± 0.041	3.5 ± 0.025	3.5 ± 0.018

Source: Own results

corresponded to TR TS 021/2011 during the entire storage period. Thus, the warranty period of storage is established, which is 6 months at a temperature of 18 ± 2 °C. The energy value of the sbiten is 45.6 kcal/100 cm³.

Based on these studies, the regulated quality indicators of the developed sbitens were established. The content of ascorbic acid in sbitens is 13.8 ± 1.6 mg/100 g, which, according to the recommended standards (MP 2.3.1.2432-08), allows to satisfy the daily requirement for this vitamin by 16% when consuming 200 ml of the beverage. The content of flavonoids in beverages is 16.3 ± 0.4 mg/100 g of beverage; hence, 200 ml of sbiten allows satisfying the daily requirement of an adult in flavonoids for 13.3%, including catechins by 25.6%.

5 Conclusions

Vegetable raw materials of the Ural region are an accessible raw material with all the necessary characteristics for use as an ingredient in nonalcoholic Russian beverages.

Using honey as a main raw material as well as fruit and berry raw materials and medicinal and technical raw materials allows obtaining an assortment of nonalcoholic national drinks with original organoleptic indicators and antioxidant orientation.

High biological activity of flavonoids causes antioxidant properties. The preservation of antioxidant activity is 76.2% by the end of the expiry date, which makes it possible to recommend sbitens as restorative antioxidant drinks for all categories of consumers [22]. A package of technical documentation has been developed for the data of the sbiten; patent No. 2460765 of the Russian Federation has been received: IPC C12G 3/00, A23L 2/38. Overall, these technologies represent a leading trend that can be used worldwide and adapted by the other producers of similar drinks.

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Leadership in Business: Factor of Corporate Mergers and Acquisitions in the BRICS Countries



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Abstract The article is aimed at identifying specific characteristics of mergers and acquisitions (M&A) transactions involving BRICS countries as a factor of developing new international leader companies. Research approaches are used at macro- and microlevels. At the macro-level, new features of the world economy globalization, prospects for the emergence of a new business environment, and business models are summarized.

The focus is on the Emerging Global Challengers of the BRICS countries (The Boston Consulting Group (2016a) Meet the new challengers. <https://www.bcg.com/publications/2016/globalization-growth-meet-new-challengers.aspx>. Accessed 22 Oct 2017; The Boston Consulting Group (2016b) The 2016 M&A Report. Masters of the Corporate Portfolio. <https://www.bcg.com/publications/2016/strategy-corporate-development-m-a-report.aspx>. Accessed 22 Oct 2017; The Boston Consulting Group (2016c) Global leaders, challengers, and champions. The engines of emerging markets. <https://www.bcg.com/publications/2016/growth-global-leaders-challengers-champions.aspx> Accessed 23 Oct 2017). The choice of this group of countries was made due to the fact that Chinese and Indian companies constitute the majority among the companies of rapidly developing economies (RDE). In addition, despite the negative assessments of the prospects for the development of cooperation in the BRICS format, in September 2017 another summit of this group was held. Based on the use of statistical methods and data from the Bloomberg terminal, it was revealed that for the period from 2000 to 2015, the number and value of M&A transactions involving BRICS countries increased by seven and two times, respectively. However, the bulk of transactions are either in-country (and the target company and the buyer company are registered in one country) or with the participation of companies outside the BRICS countries.

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Starting from 2007 (except for 2011), companies from the BRICS countries in monetary terms have been net buyers; before 2007, they had been net targets, with the greatest impact on this result being the dynamics of M&A transactions involving Chinese companies.

1 Introduction

Leadership in business is understood as the company's ability to influence the market environment through the use of effective strategies aimed at dominance and increment of value. Simultaneously, changes in the global environment affect the business model of the leader company.

The article analyzes trends in the implementation of the strategy of corporate mergers and acquisitions in the format of the BRICS group. The BRICS countries are emerging market countries, and China and India are among the countries with a rapidly developing economy (RDE), and new international leaders are being formed in their bosom. Despite the pessimism about the prospects of this group, the ninth BRICS Summit was held in China from September 3 to September 5, 2017. At the same time, the fact that the sluggish world situation in recent years has helped to reduce mutual exports of goods between the BRICS countries cannot be ignored (Lisin et al. 2014; Jiroudková et al. 2015; Ivanova 2016a; Cieřlik et al. 2016; Shapiro and Li 2016; Moyseyenko and Ryvak 2016; Strielkowski et al. 2017; Jankelová et al. 2017). These circumstances altogether increase the relevance of our paper and make it useful for the academics, stakeholders, and businessmen alike.

2 “Other” Global Environment

TNCs operate in a particular business environment, the changes of which are reflected in the efficiency of the business. Let us note some features of the new stage of globalization. There has been a trend toward decentralization of global regulation and a change in the “rules” of the game. So, the difficulties of reaching consensus in the format of the World Trade Organization, which was joined by more than 160 countries of the world, have led to a “slippage” of its activities. In addition, regional and subregional trade agreements play an increasing role, the number of which has increased to 280. The BRICS group is moving in the same direction. The problems of improving global governance were included into the agenda of the September summit of the BRICS group (2017), which advocates the thesis of multipolarity, reciprocity and inclusive development. The Chinese side proposed to include extra-regional players into the dialogue in the format “BRIX +” and “BRIX ++.”

For Russia, such a format is a chance to expand its influence on global processes and is in line with the Foreign Policy Concept of the Russian Federation (2016).

One of the manifestations of the trend for the formation of new international financial institutions, and other institutions dominated not by the USA but by other countries, is the activity of the New BRICS Development Bank, launched in 2015.

As a result of the global financial crisis, state structures acquired the whole or a share of previously private large companies. The share of those increased in the Fortune list – 500, from 9% in 2005 to 23% in 2014. Thus, the thesis on the higher efficiency of private companies compared to the state ones is questioned.

Simultaneously with the decentralization of the world economy (with the preservation and development of global markets), new rapidly changing business rules will arise, including national, regional, subregional, international and supranational norms. Hierarchies of rules can be violated, which will create additional risks for participants. There is a great chance of adjusting globalization as the prevailing business model of TNCs toward an approach that is maximally geared toward localization in the country of deployment. At the same time, the role of internal structural reforms realized in individual countries (Simionescu et al. 2016; Bhattacharya et al. 2016) is likely to increase dramatically.

These changes are directly related to the widespread introduction of digital technologies and robotics, which will lead to an increase in labor productivity. Benefits from the transfer of industries in countries with cheap labor will drop sharply, which already leads to the effect of reshoring (resourcing). In early 2012, at the forum “Insourcing American Jobs,” President Obama asked US companies to invest in America (White House 2017). The development of global e-commerce market platforms will lead to the replacement of complex cross-border supply chains and will change the geography of trade. This is facilitated by the formation of the middle class in some developing countries (emerging market countries). In this regard, in China, part of the production is already reoriented from the export of goods to developed countries to the export of goods to the domestic market. In addition, the boundaries between the goods and the service are blurred due to their mutual penetration. There are a growing number of products with IT component providing service. Against the background of the stagnation of world trade in general, the share of services is growing. As a result, the “digitization” of business processes and the decentralization of regulation will change the prevailing rules of competition and the competitive advantages of corporations.

3 Emerging Market Leaders and Strategic Mergers and Acquisitions

The data of BCG report (The Boston Consulting Group 2016a, b) for June 2016 show that Chinese (including Hong Kong) and Indian companies continue to dominate among the companies-challengers (global market leaders) among emerging market countries. More than half of the 100 companies-applicants of the RDE

countries are from these two countries. All other companies originate from Brazil, Mexico, Indonesia, Turkey, Russia, Thailand, and Malaysia. Most companies used M&A transactions as a factor of increasing scale, penetrating the markets of other countries and borrowing intellectual property. This fits into the global trend of reviving the market for mergers and acquisitions. So, in 2015, comparing to the previous year, this market grew by 4% (from 31.9 thousand transactions to 33.3) and exceeded the peak values of 2005 (WilmerHale 2016). This trend continued in 2016 (Deloitte 2016; The Boston Consulting Group 2016a, b, c, 2017) by the relatively high return on investment in developing economies (Boston Consulting Group 2017). Transactions with participation of at least one company from emerging market countries have the cumulative average abnormal returns (CAAR) at the level of 1.6%, which is 1.77 times higher than in developed markets. The access to the global brand of companies from developed countries (Sehgal et al. 2015) can be a very significant stimulus for investing in the BRICS countries. The implementation of foreign direct investment by the BRICS countries is aimed at overcoming the lag in entering the world markets with respect to companies from developed countries. This, in turn, required the largest enterprises of the BRICS countries to apply Western business models (Avdokushi and Zharikov 2013). However, the role of state support is high in the transnationalization of Chinese companies' business. The state controls 69% of the largest international companies there. In Brazil, 97% of enterprises in this class belong to private investors (Aguiar 2009). According to Bruce Dixon, the turning point in the development of private Chinese companies and their entry into world markets was 2001; when entrepreneurs were able to join the communist party, their role in modernizing the country was recognized (Dickson 2003).

Figure 1 shows the dynamics of the volume and number of corporate transactions carried out in the BRICS countries between 2000 and 2015. Corporate transactions in this case are the following: M&A transactions, joint ventures, buyback deals, and business spin-off deals.

As can be seen from the above statistics, for the period from 2000 till 2015, the total volume of corporate transactions expressed in monetary terms in the BRICS countries increased almost 15 times from 26.5 billion US dollars to 388.0 billion US dollars. The year of 2015 was a record for the BRICS countries in terms of the volume of completed transactions in the history. The number of transactions for the same period increased more than 7 times from 411 units in 2000 to 2916 in 2015, while the maximum number was 3657 in 2011. For 15 years, the average volume of corporate transactions has more than doubled from about 65.7 million US dollars in 2000 up to 133 million US dollars in 2015. The total volume of transactions has been more than 2.6 trillion US dollars or 36,617 units for these 15 years.

The share of mergers and acquisitions in the countries of the BRICS group accounts for about 70% of the total volume of corporate transactions, with a further tendency to increase their share (Fig. 2).

It is of scientific interest to structure M&A transactions involving companies from the BRICS countries according to the following characteristics: (a) intranational transactions between counterparties within one of the BRICS countries (e.g., both

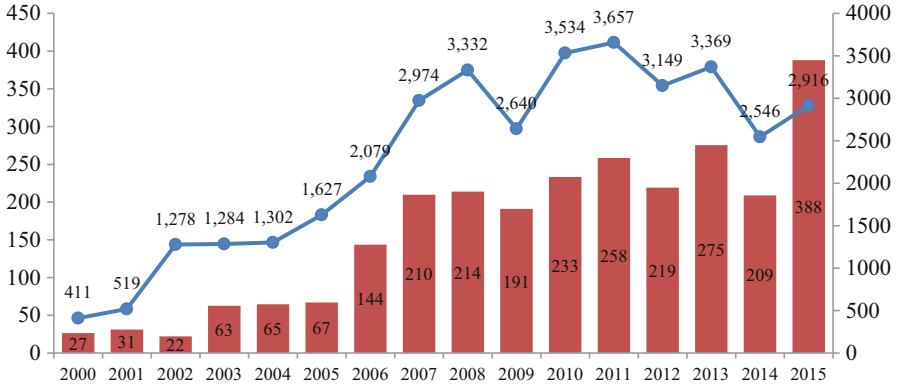


Fig. 1 Dynamics of volumes and number of corporate transactions in the BRICS countries from 2000 till 2015 (the company buyer is BRICS; the company target is BRICS) (Source: Bloomberg 2017)

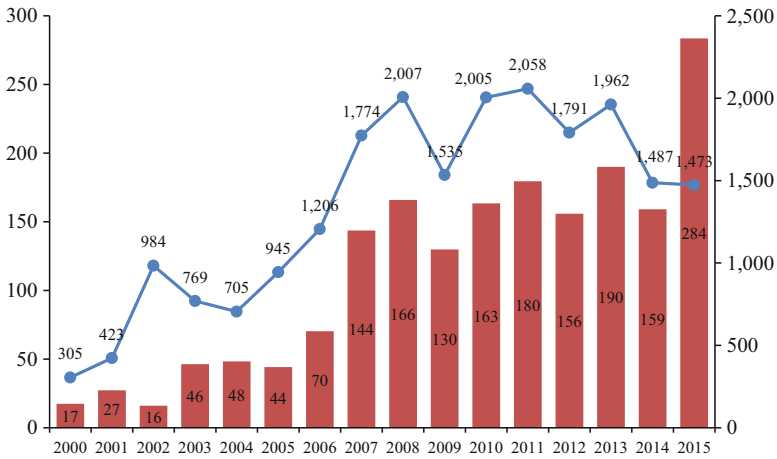


Fig. 2 Dynamics of the volume and number of M&A transactions in the BRICS countries from 2000 till 2015 (the company-buyer is BRICS; the company-target is BRICS) (Source: Bloomberg 2017)

the buyer and the seller are a company from China), (b) transactions between companies from different BRICS countries, and (c) transactions between companies from the BRICS and outside the BRICS group (Fig. 3).

It can be seen from the above analysis that the largest positive balance (the volume of international transactions in which the BRICS company is a target, minus the volume of transactions in which the BRICS company is a buyer) occurred in 2000, and represented about 53.8 billion, while the smallest balance for 2015 was -49.6 billion.

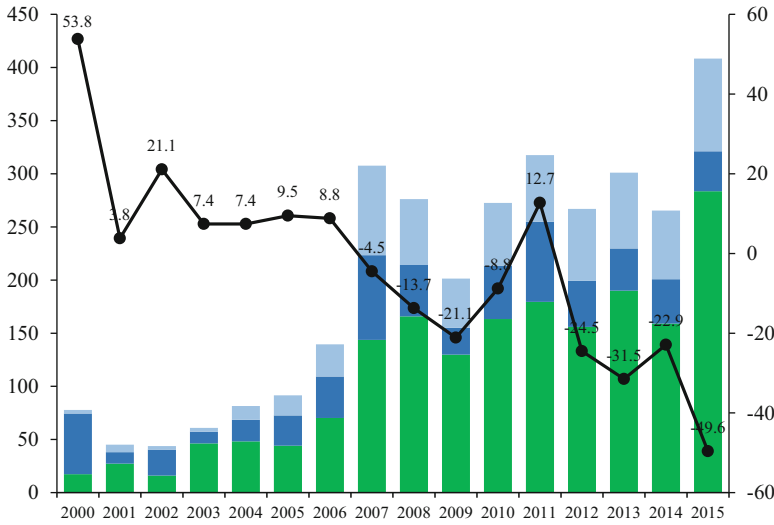


Fig. 3 The dynamics of the structure of mergers and acquisitions transactions with the participation of companies from the BRICS group for the period from 2000 till 2015, billions of US dollars (Source: Bloomberg 2017)

There is a clear tendency that, starting from 2007 (except for 2011), companies from the BRICS countries in monetary terms have been net buyers, while before 2007, they had been net targets, with the greatest impact on this result being the dynamics of M&A transactions in China.

A more detailed analysis of the structure of M&A transactions in the BRICS countries' format showed that most of them refer to domestic transactions of a particular country.

At the same time, cross-M&A transactions between BRICS countries occupy a rather low share in relation to the total number and volume of M&A transactions. In terms of value, the share of cross-border M&A transactions between companies from the BRICS countries for the period from 2000 to 2015 has not exceeded 1.1% and according to the number of transactions, no more than 8.1%. The data obtained indicate that companies from the BRICS countries are at the stage of consolidation of capital within their country. Similar results were obtained in the analysis of international M&A transactions between agricultural food companies of the BRICS countries (Ivanova 2016b).

Dominant industries in which mutual cross-transactions were carried out between BRICS companies were the energy and extractive industries.

In this statistical analysis, it seems interesting to consider the structure of cross-mergers and acquisitions in the countries of the BRICS group from the point of view of the companies from which countries basically act as a buyer and from which countries – as the target. So, for 15 years from 2000 till 2015, companies from India acted as a buyer 69 times and China – 51 times. Companies from Brazil, on the contrary, in the majority of cases, for the period under review, had 58 deals, in the

same way for Russia, 27 deals, and South Africa, 48 deals. Based on these data, it is possible to calculate the preference index as the ratio of the number of M&A transactions completed, where the companies from that country were the buyer, to the number of completed mergers and acquisitions, where the companies from the given country were the target (similarly, the index can be calculated, and for the volume case, transactions of mergers and acquisitions are represented in monetary terms). In case this index exceeds 1, it can be concluded that companies from this country prefer to mainly be a buyer; if the index is less than 1, it means that companies from the given country on the contrary are inclined to act as a target. This index for the BRICS countries is as follows: India, 3.1; China, 2.6; South Africa, 0.7; Russia, 0.6; and Brazil, 0.1. Thus, the reviewed historical data showed that companies from Brazil, Russia, and South Africa are more often targets, while companies from China and India are buyers.

4 Conclusions

The study showed that companies of the BRICS countries are actively involved in the processes of cross-border capital flow and formation of new companies-leaders of international scale. The strategy of mergers and acquisitions remains relevant in the current stage of globalization. Significant growth of M&A transactions with the participation of BRICS countries was revealed. At the same time, it is determined that the bulk of these transactions are in-country and with the participation of companies outside the BRICS. M&A transactions between BRICS companies, despite a significant absolute growth in number and volume, are relatively insignificant.

It is fundamentally important that in 2007 there was a turning point in the balance of foreign direct investment in the form of M&A. If in the pre-crisis period the companies of the BRICS countries acted mainly as target companies, in the post-crisis period, on the contrary, they acted as investor companies, which is the condition for the formation of a leading company. The trend is caused mainly by Chinese and Indian companies. At the same time, the value of one transaction increased. Companies from Brazil, South Africa, and Russia are increasingly absorbed by companies from other countries. This partly explains the reason for the predominance of Chinese and Indian companies in the BCG list – the RDE 100 Emerging Global Challengers, 2016.

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Part IV
Leadership in the International Academic
Policy

Regional Flagship Universities as Implementation Leaders in the Priority Development Areas of Russian Educational Paradigm



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Abstract The objective of the paper is to focus the attention of the international academic community on one of the important aspects of development of Russia's educational paradigm – a network of regional flagship universities being created in the multilevel system of higher professional education. Such universities are designed to efficiently meet the needs of today's society and to generate a creative scientific, social, and professional climate in their home regions. They are also oriented to upbringing the competent and active specialists having leadership skills and being able to independently identify the goals of their productive activity, to solve various production tasks, to build relations with others correctly, and to work in a team. The authors of the paper note that a need of creating the regional flagship universities is first of all due to the drastic change in all spheres of life of the modern society; to the social and economic, political, and other reforms in Russia; and to fairly important developments of the Russians' public life content and conscience. In the paper, objectives and tasks faced by the country's regional flagship universities are viewed, and the contemporary challenges both to higher educational institutions and the entire system of higher professional education of Russia are analyzed. According to the authors, creation of regional flagship universities will allow the higher educational institutions to go on to a brand new quality level. The university will be more than just a place for students to get higher education at; first of all, it will be a leader in implementing the priority directions of development of Russia's educational paradigm, a center for introducing various social programs and projects, and a basis for forming a new, cutting-edge, harmoniously developed personality having leadership skills. Flagship universities will also be the activation community for the creative and professional thought of all strata of the population in their home regions or macroregions.

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1 Introduction

On the verge of the twentieth and twenty-first centuries, under the world global transformation, the contemporary society has seen drastic change in many spheres of life of the society – in social, economic, culturological, and political one. The Russian educational system, especially the higher education cluster, is an important component of all spheres of life for the people of today and a basis for the progressive development of the country's economy. The special significance of education in the life of the society is stressed by its being a starting point in the innovation chain “education → research → venture projects → mass acquisition of innovations.” The research scientists and practicing pedagogues recognize the necessity of pedagogically organized socialization of an individual in the interests of both the society and the very individual. This implies the formation of such a system of learning under which the younger generation's reappraisal of values and value references becomes possible and the formation of socially active, competitive specialists who can think in an original way, who can make decisions in nonstandard situations, and who have leadership skills (Vershina 2004; Lazarev and Martynenko 2005; Campos 2004; Gibb 1954; Hodgkinson 1983).

In order to solve the problems of the leader's worldview being formed in representatives of the young generation and of training of competitive specialists, higher educational institutions of a new type are essential: ones that have a special status and that are powerful state-of-the-art scientific and educational centers. They have to possess a greater academic freedom as compared to the previous higher educational institutions and to be financed not only by the federal and regional budgets but also by sponsors – enterprises of those branches the specialists for which are trained by the higher educational institutions. All experts agree that it is essential and important to upgrade the higher education. Within the state policy in education, in the recent 11 years, 10 federal universities have been formed, and 29 national research universities have been determined. According to the set tasks, it is considered to be extremely important to form a network of regional flagship universities in Russia that are designed to act as drivers of social and economic development of the country's regions.

2 Literature Review

Russia's joining the united educational space, the development of the country's education system, and reforms in this field predetermined the educational strategy that opens up broad opportunities for sensible employment of financial and human resources in the sphere of higher school. It becomes possible, among other things, to form the divergent thinking as a means for generation of original creative ideas and fulfillment of one's professional and personal potential in the future specialists.

The theoretical basis of the research is determined by social and pedagogical theories and concept about:

- Systemic approach to reforming the Russian educational system (Blauberg 1997; Gvishiani 1970)
- Humanization of education in the process of professional training (e.g., Bezdukhov and Zhirmova 2008; Zimnyaya 2000)
- Developing education (Asmolov 2007; Vygotskiy 1999; Galperin 2008)
- Activity-based approach to teaching and upbringing (Asmolov 2007; Galperin 2008; Leontiev 1997)
- Learner-centered education and learning (e.g., Belukhin 2007; Orlov 2002; Yakimanskaya 1995)
- Contemporary educational environment and educational space (Manuylov 1997; Panov 2007; Slobodchikov and Isaev 2013)
- Integral pedagogical process, technologies, and methods of teaching (Bezrukova 1989; Khutorskoy 2015; Semushina and Yaroshenko 2001)
- Unity of personality and activity and conscience and activity (e.g., Asmolov 2007; Vygotskiy 1999; Galperin 2008; Leontiev 1997)
- Human thinking (Brushlinskiy 1991; Luria 2003; Nemov 2003)
- Reflexive nature of human conscience and thinking (Lektorskiy 2009; Shvyrev 1978)

3 Research Methods

The methods were selected for the research in line with the objectives and tasks set in the papers. In particular, the systemic, logical, and historical analysis allowed viewing the certain experience of activity of the Russian higher educational institutions in retrospect under the global change of today's educational system and entering the Bologna process. Next, the theoretical and methodological analysis allowed making more precise the requirements put forward for the development of a new-generation educational system and outlining the criteria it has to match. The contrastive and comparative analysis enabled the authors to consider the particularities of educational systems of the European countries and the USA as well as Russia's educational systems of the Soviet times and of its contemporary stage of development. The methods of analysis, synthesis, and theoretical generalization allowed studying and quite completely analyzing the standard documents concerning the contemporary Russian education, the professional one included. The methods of the research applied rely on realizing the importance of reforms for the modern Russian educational system, the relevance of solving the philosophic and ethic problems of development, and creation of a new-generation educational system.

4 Results and Discussion

The state is interested in expanding the society's participation in the education system development and in the formation of a social order for certain conditions for educational rights to be fulfilled, legislation on education strictly adhered to, and the state educational standards implemented (Baidenko 2005; The Bologna process and its importance for Russia: integration of higher education in Europe 2005; Buchberger 2002; Freire 1972).

The researchers recognize that the subject of educational process has to be up to the level of social and economic development of its state, as it is the subject that acts as the decisive, main productive force of social production. That is, the level of education directly influences the quality of labor resources – and, therefore, both the economy and political course of the state. Moreover, the young people take an increasingly active part in shaping and fulfilling the country's social policy. With regard to this, the introduction of the state and social management models for education is considered to be one of the crucial conditions for openness and investment attractiveness of the academic sphere (Belkanov 2001; Zhukov 2004; Fatkullina et al. 2015, 2016; Ganter 1987; Schuster 2001).

The character of Russia's educational system is determined by its social and economic and the political order as well as by cultural and historical, national features. The society's requirements for education generally follow from the system of principles of the state educational policy worded in the federal law "on education":

- Education shall have a humanist character, with such general human values as human life and health, free development of personality, cultivating the traits of diligence, civil spirit, a respect for rights and liberties of man, patriotism, love for the family and nature prevailing.
- The united federal educational and cultural space; the national and regional cultural traditions and particularities shall be protected and developed, Russia being a multinational state.
- Public accessibility of education; its system shall be up to the level and particularities of students' development and training.
- The secular character of education received at the state and municipal educational institutions
- Freedom and pluralism.
- Democratic, state and social character of controlling the education; autonomy of educational institutions.
- Tolerance toward socially vulnerable groups of population.

The contemporary educational system of Russia is oriented to entering the European educational space, which allows "expanding the borders" and freely traveling through the national boundaries both to students and specialists. Integration of the national systems of education can be considered one of the manifestations of such openness. At present, the country's higher educational institutions take an

active part in many international and joint projects; the academic mobility is improved in which both students and the research and teaching staff of higher school participate. Traditions, culture, and standards of the European education are taken over by the Russian higher educational institutions. Social and cultural transformation of modern society is seen not only in the culture being rendered international but also in the wish to keep the originality of one's culture and one's people, which is especially important. Harmonious development of both trends in today's society is an important criterion for sustainable development of the sphere of education.

The organizational basis of the RF state policy in education is the national project "Education" that has determined the priority development strategy for the system of education, measures for implementation thereof, and provided for ways to ensure normal functioning and sustainable development of the system. As a result of the upgrade of the Russian educational system, many Russian higher educational institutions have succeeded in adapting to the new conditions of the transition period:

- Some flagship universities (the leading ones that had an active "third" mission – the service one, high-profile leadership, a high culture of performance but not of initiative) could retain their leading positions.
- A part of higher educational institutions have ceased to be considered flagship *de facto*.
- New advanced higher educational institutions have emerged in the new niches.
- The third mission has almost gone with elements of the fourth – leadership – coming to the foreground.

In conditions of market relations, destruction of the old system of the state, production, and social support of professional education, the educational organizations not only have to keep up partnership with each other, but they also have to survive and even win in quite a bitter competitive struggle. So it was those organizations that promptly evaluated the change taking place and transformed their educational activity into a business process that have proved to be the most successful and viable ones. In particular, they introduced the new schemes of development and implementation of educational programs based on the principles of cooperation with employing companies and the public; they studied the labor market needs and introduced the cutting-edge achievements of science and technology into the academic process. Such consistent work has enabled these educational organizations to remain fairly competitive in the market of educational services.

Owing to the crystal clear state policy, spontaneous transformations in the system of education have been avoided successfully. In the recent time, Russia's state policy in education has been focused on elaborating a new structure – a network of higher educational institutions:

- 2006–2011 – federal universities were created.
- 2008–2010 – national research universities were created.
- 2013–2020 – the 5–100 contest was organized and held, with 18 higher educational institutions being accepted for participation.

- 2012–2014 – the contest for developing the programs of strategic development of higher educational institutions was rounded up (55 higher educational institutions of Russia participated in the contest).
- 2015–2020 – work has been commenced under the program of creating a network of flagship higher educational institutions (it is expected that by 2018, 100 higher educational institutions of the country will have been ranked as flagship ones).
- Alongside with that, projects of reorganization have been developed and introduced for higher educational institutions and branches that were recognized as having signs of inefficiency as per the results of higher educational institutions efficiency monitoring.

So, the creation of regional flagship universities is a second stage of the consistent initiatives of the state and the Ministry for Education and Science in development of the higher school. In general, this is a voluntary multi-profile association of educational institutions in order to create a shared program of education. Such associations will allow a 25% reduction in the quantity of higher educational institutions, which is essential due to a number of demographic indices (particularly, a smaller quantity of schoolchildren graduating from grade 11). It will also improve the competitiveness of Russia's higher educational institutions at the world level essentially. Within this reform, the Ministry for Education and Science has made a decision to the effect that the Russian system of higher education of today needs a few top-achieving higher educational institutions created that would closely cooperate with the country's major enterprises, which will allow not only improving the quality of training for young professionals but also bringing the Russian system of higher education out into the competitive environment. With regard to this, it is planned to establish 100–150 basic higher educational institutions at the RF level which will accumulate all state-of-the-art innovations in education.

Regional flagship universities perform the function of leader in implementing the priority directions of development of the country's educational paradigm. Leadership is viewed by the authors as a social mechanism that is designed to order and regulate the activity of the entire educational system and to promote its more efficient and successful functioning. By leadership in education, two approaches complementing each other are understood:

1. Leadership as managing the education, a managerial standpoint in which a leader is the state's or of the Ministry for Education and Science's representative in education; the leader has the relevant functions and qualities, and the leader's sphere of activity is the system of education and its structures.
2. Leadership as a high level of teacher's professionalism; meanwhile, a leader is the subject of pedagogical process having his own point of view of this process, his own technology and teaching style; the leader's sphere of activity is the content and forms of education, the strategy and style of behavior in a group of students.

In this paper, the authors view leadership in education as managing the education, a clear-cut and strict managerial standpoint. In particular, the fact should be borne in mind that leadership in education is carried out in a certain sphere of activity and in a

certain educational organization precisely, which implies leadership in fairly definite professional areas having their specific features. Leadership imposes various requirements for personal and professional qualities of the potential leaders. It becomes especially important in education where the result of activity cannot be presented as a tangible product; here leadership is a definite subjective feature.

In accordance with the strategic development program, the objective of creating the said scientific and educational centers is higher efficiency of management for universities and their conformity to the employers' needs. The consistently promoted by the state segmentation of the higher education system involves forming a network of regional flagship universities by means of merging the existing higher educational institutions for the purposes of social and economic development of the regions. A regional flagship university is an educational organization of regional importance that is established on the basis of the most promising university by joining to it one or more educational institutions located in the same region. Such higher educational institutions are to become a kind of attraction center and to perform the functions of educational, upbringing, scientific and research, social and innovation centers. Regional flagship universities are designed to act as a driving force of the social and economic, environment-related (both regional and urban) development and to orient to needs and demands of their home regions or macroregions. Meanwhile, an important factor is the integrated approach to analyzing the influence of higher educational institutions on the regions that is not limited by education and science only but implies a wider (cultural, social, educational) interaction with the urban/regional environment (Erofeev 2006; A "soft way" for the Russian higher educational institutions to enter the Bologna process 2005; Pulyaev 1998).

As a model of the Russian regional flagship university, the educational leader of this sphere is envisaged, an engine of development for the region or macroregion. This is a major multi-profile higher educational institution implementing not only bachelor degree programs but also master degree and postgraduate ones; it features a high potential of scientific and research activity while also having the capacities for it. A flagship university has laboratories and educational programs geared toward the state-of-the-art techniques and technologies that are up to the international standards. It orients educational programs and research being performed to the priority directions of development of both its home region or macroregion and the country as a whole. A flagship university possesses the contemporary culture of strategic and operational management; it has organized a clear structure of interaction with the regional authorities, the business, and the society. With regard to this, it offers various social projects for development of the region or macroregion and takes an active part in implementing them. It is always looking out for talented young people, engaging them to work in various creative scientific societies and many more.

Regional flagship universities bring into life the following components of the region's or macroregion's life:

- The educational component (an active influence on the structure and education level in the region)
- The social one (a better quality of life for all citizens of the region or macroregion)

- The economic one (the effect on the regional economy, budget income, local production structure, labor market, etc.)
- The demographic one (a positive influence on the demographic growth dynamics)
- The infrastructural one (quite an effect on the housing market, transportation system, various social services, and the like)
- The cultural one (organizing and holding various cultural events for the citizens of the region or macroregion)
- The image-related one (shaping a positive research-centered image of the region or macroregion)
- The upbringing one (continuity and consistency of education from secondary school training to studying at the university, the link between the school → higher educational institution system components, complementariness of all stages of education received by an individual, and the formation of a psychologically mature personality)
- The political component (active students get introduced into structures of local authorities)

According to the specialists, the strongest universities that have passed the contest, have submitted their programs of development of the system of education and staffing potential for 2016–2020, and have been awarded the status of regional flagship universities of Russia will become the foundation for creating a powerful educational base at the regional level. It will not only ensure training of high-class specialists and prevent the talented and promising students from draining to higher educational institutions of the largest cities (it is no secret that one third of all country's school leavers enter the higher educational institutions of Moscow, Saint Petersburg, and Novosibirsk), but it will also promote the development of the entire region or macroregion in general.

The status of a regional flagship university entitles a university for the state subsidy at the rate of 100–200 million rubles annually for the entire program implementation term (from 1 to 3 years), provided that 20% of the amount received is spent on the university's own development project. However, the creation of regional flagship universities causes many questions with specialists. For instance, V.A. Sadovnichiy, rector of Moscow State University, believes that smaller focused higher educational institutions may well take part in the program, citing Harvard University as an example. The opinion of Ya.I. Kuzminov, rector of the Higher School of Economics, can be agreed with too – he believes that even if its own regional flagship university is founded in each region, 100 universities are next to none for such a vast country as Russia. Moreover, once the term set by the financing program is over, a flagship university shall become self-dependent – but the question if the universities will be able to start off on time remains open.

In 2016 the federal state budget-funded educational institution of higher education “Ufa State Petroleum Technological University” got the status of a regional flagship university of Russia. This was a new boost in the university's progress. With its new status, in the past year, the university updated the material and technical fitting out of over 100 laboratories and supported over 100 young scientists.

More than 500 employees completed further training, and the teachers' publishing activity increased considerably. Over ten chairs were created that are integrated in oil and gas complex enterprises, with almost all large oil and gas companies participating in the university's educational activity. The university students have practice at the enterprises. Both teachers and students of Ufa State Petroleum Technological University take part in academic mobility. In the region, quite a lot of cultural and educational events are organized, among which there are the city's and region's leading theatres being invited with shows for all citizens of the region, scientific and educational lectures read by the university teachers for all the interested. Students' scientific societies also work in which the students of the city's and region's schools take a most active part. Conferences of various levels are held, with not only students, postgraduate students, and young scientists participating but also involving schoolchildren with their research works prepared under the scientific guidance of the university teachers. Various social initiatives (e.g., the Zeleniy gorod ("Green City") action), national festivals ("Navruz," Africa's Independence Day, etc.), and many other events are organized.

5 Conclusion

The Russian educational system is currently undergoing a smooth transition to a new stage of innovation development. The regional flagship universities that are being created in several stages are intended to become leaders in implementing the priority directions of development of Russia's educational paradigm. The new approaches to learning will create conditions for achieving the up-to-date quality of education that is in line with rapidly changing demands of the society and social and economic conditions. They will also promote the rise of the modern civil society institutions.

With regard to this, the main principles of education according to the Bologna process will be adhered to: the comparability of education programs, academic flexibility of students and professional mobility of teachers that are achieved by the ongoing improvement of pedagogical proficiency and expansion of scientific interests, equal value of the diplomas of all higher educational institutions of the European countries in the labor market, an opportunity of free employment in any European country, and others.

The role of education in resolving the problems resulting from globalization as an objective trend of the multipolar world of today cannot be overestimated. It is education that is designed not only to train a leader specialist but also to develop in people an understanding of value of the united world.

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Academic Leadership as a Goal for Municipal University Development



Inna A. Akhyamova, Ksenia A. Mitrofanova, and Alexander A. Pronin

Abstract The aim was to study the experience of Ekaterinburg Academy of Contemporary Art (EACA) allowing it to occupy the leading positions among universities of the Ural region and Russia in the quality of cultural and art projects and competencies and its contribution to the development and global competitiveness of Ekaterinburg, the Ural region, and Russia. We described the state policy in education for 2013–2017 aimed at providing new quality of education. We analyzed foreign studies concerning academic leadership and concluded that to become an academic leader, a local (municipal) university should avoid traditional systems of university development existing for decades and try to introduce modern organization strategies for all university activities, particularly to transfer from processing to projecting approach in education. We determined the general mechanisms to achieve strategic goals of EACA aimed at becoming one of the regional academic leaders.

1 Introduction

According to the Concept of Long-Term Social and Economic Development of the Russian Federation (RF) until 2020, upgrading the educational system is one of the factors contributing to national well-being and security on the way to innovative economic implementation (Concept of Long-term Social and Economic Development of the Russian Federation until 2020 2008). The strategic goal of the state policy in education is to increase access to high-quality education meeting the requirements of innovative economics and social and civil needs.

To achieve this goal, they introduced the RF state program “Education Development” for 2013–2020 (Russian Federation State Programme “Education

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development” for 2013–2020 (2014) and RF local governmental programs for educational system. For example, in Sverdlovskaya oblast, we have the state program “Development of the Education System in Sverdlovskaya Oblast until 2024” (State Programme of Sverdlovskaya oblast “Development of the education system in Sverdlovskaya oblast until 2024” (2016). All the abovementioned documents aim at meeting key criteria in the field of education stated in the Presidential Decrees of RF dated May 7, 2012 (Decree on arrangements of implementing the state social policy (2012); Decree on measures of implementing the state policy in the field of education and science (2012). Concerning higher education major goals include availability of high-quality education and development of effective network of Russian higher education institutions providing specialist training according to social and economic development and market demand.

Annual monitoring of educational institution efficiency is the tool of the state policy to increase the quality of higher education (Decree on education in the Russian Federation (2012). The monitoring criteria for educational system and methods of their evaluation are determined by the Ministry of Education and Science of RF according to the list of obligatory information about the educational system under monitoring approved by Resolution of the RF Government dated August 5, 2013 N 662 (Resolution on educational system monitoring (2013). This monitoring system is continuously improving, and the monitoring criteria are being adjusted. In 2017 they evaluated university efficiency according to the following seven major criteria: science and research, educational, international, financial, economic activities, teaching staff wages, and graduates’ employment. Detailed analytical information on the monitoring results is in the open access allowing applicants to study and compare universities’ activities when choosing the educational institution. Moreover, this information is the basis for governmental regulations to improve the network of educational institutions offering educational programs in demand.

The monitoring has led to decreased number of universities both in RF and its regions. According to the open-accessed data (<https://miccedu.ru/monitoring>) presented by the information and analytical center of the Department of State Policy in Higher Education of the Ministry of Education and Science of RF, 74 (37 in Ekaterinburg) higher education institutions (27 universities, 47 branches) of Sverdlovskaya oblast were monitored in 2014. One year later in 2015, only 53 (33 in Ekaterinburg) higher education institutions provided educational services in Sverdlovskaya oblast. Fifty three higher education institutions included 27 branches (minus 20 compared to that in 2014), 1 federal university, 34 state and municipal universities, and 19 private universities. Finally, in 2016 only 38 higher education institutions (15 branches, 1 federal university, 27 state and municipal universities, and 11 private universities) were functioning in Sverdlovskaya oblast. Thus, during 2 years the number of universities was almost halved, and the number of branches decreased by three times. Only 26 higher education institutions were left in Ekaterinburg, so the number decreased by 30% during 2 years.

Increased efficiency, competitiveness, and quality of higher education are not only the aims of the state policy but have become the goals of every university.

The municipal budget higher education institution “Ekaterinbug Academy of Contemporary Art” (EACA) was established in 2006 by the decree of the Mayor of Ekaterinburg N 558 as a scientific and educational center to implement municipal policy of Ekaterinburg in the field of culture. The program of the strategic plan of the city development “Ekaterinburg as a Metropolis of Culture and Art” states the necessity to preserve and develop city culture, to increase intellectual and cultural level of citizens and satisfy their needs in cultural self-realization. Moreover, it also supposes to create city conditions for continuous generation of cultural innovations demanded on the regional, federal, and global levels (Strategic plan of municipal education development “Ekaterinburg City” until 2020 2010). Therefore the mission of EACA is to serve Ekaterinburg citizens, develop creative and intellectual potential of the city, and consolidate research and teaching and administrative and cultural resources to train specialists competent in technologies of social and cultural environment transformations.

However, ineffective management led EACA to critical situation by 2013, and after the monitoring, it was placed on the list of higher education institutions requiring optimization of their activities. The monitoring results and self-evaluation allowed determining prospects of EACA development stated in the program of optimization of EACA activities for 2014–2016. Effective accomplishment of the program made EACA one of the academic leaders of the city and region.

2 Literature Review

Education used to be provided by nonprofit organizations and considered a public good (Pucciarelli and Kaplan 2016). However, during last decades, the education sector has been fundamentally changed due to society development. Currently, besides having obvious social mission, universities are under pressure of the market demand in a highly competitive field for providing educational service. Because of new tasks, universities have to develop strategies to meet the challenges in higher education field. One of such strategies, SWOT (strengths, weaknesses, opportunities, threats), was offered demonstrating eight key trends influencing higher education in short-term and medium-term periods (Pucciarelli and Kaplan 2016). Some authors offer to implement Social Accountability Management System (SAMS) to determine academic leaders contributing to social and economic development of society and meeting individual needs (Sandu et al. 2014). Effective implementation of SAMS in higher education leads to current human resources development. Development of such strategies and systems may allow to determine academic leaders meeting the needs of regional social development. The major challenges for universities will be the need to enhance prestige and market share and the need to transit to business mindset and widen interactions and cooperation with stakeholders (Pucciarelli and Kaplan 2016).

Moreover, though many universities accept ideas of sustainable development (SD), the majority continues to follow the traditional paradigm retarding the

development of balanced and sustainable society (Lozano et al. 2013; Dlouhá et al. 2017). It is not enough to have strategies to be a regional academic leader; university should show the results of their effective implementation in society. Universities can be considered sustainable leaders and change drivers if they guarantee to satisfy the needs of the present and future generations in their development, thus contributing to SD of society (Lozano et al. 2013).

Also, an important indicator of strategic position of a university is its activity in political life and regulatory functions on the regional and national levels (Sedlacek 2013). Sustainable university development determines its real and potential role not only in educational and research fields but also in socially valuable political and economic fields. Furthermore, we should pay attention to the role of a university in the innovative development of the region. Here the development of local universities is a strategic task to enhance SD of the region. Initially, local universities were established to satisfy the needs of local people in education, to create professional workplaces, to stimulate innovations, and later to prevent brain flow to metropolis (Bjarnason and Edvardsson 2017). Currently, new universities contribute to innovative development of the region both due to high-quality researches (Cowan and Zinovyeva 2013) and establishment of regional clusters aimed at high-technology development and application of knowledge and technologies in the production field (Reveiu and Dardala 2013). Regional higher education institutions can be considered as proactive, internally motivated organizations serving as intermediary in society (Ruoppila and Zhao 2017). So, to become an academic leader, a local (municipal) university should avoid traditional systems of university development existing for decades and try to introduce modern organization strategies for all university activities, particularly to transfer from processing to projecting approach in education.

3 Research Methodology

The research was performed in 2017. The aim of the research was to study the experience of EACA allowing it to occupy the leading positions among universities of the Ural region and Russia in the quality of cultural and art projects and competencies and its contribution to the development and global competitiveness of Ekaterinburg, the Ural region, and Russia. The objectives of the research were to describe the state policy in education for 2013–2017, to analyze foreign studies for approaches in academic leadership, and to determine the general mechanisms allowing EACA to become one of the regional academic leaders. We used general philosophical and analytical methods, such as analysis, synthesis, induction and deduction, description, classification, and comparison.

4 Results and Discussion

The EACA strategy introduced in 2013–2014 aimed at achieving the following results in major academic activities.

Education: transformation of the educational process to achieve professional training outcomes of international quality, implementation of advanced learning methods by translating the best world practices in organizing and managing cultural sphere. EACA graduates should possess comprehensive practice-oriented knowledge and competencies providing SD of Ekaterinburg cultural environment.

Project: practical involvement of EACA teachers and students in city social and cultural processes, introduction of the latest cultural trends in complex interdisciplinary students' and teachers' projects contributing to renovation of city cultural environment.

Science and research: increased number of practice-oriented researches aimed at the development of the cultural field of Ekaterinburg, the Ural region, and RF based on the creation of intellectual products and services in culture and art to meet the market demand; increased number of research papers of EACA authors published in international reviewed journals. Scientific publications of EACA authors are included in the best published papers in RF according to the data provided by Science Index (<http://elibrary.ru>).

International activity: development of EACA image and its branding recognizable on the regional, country, and world levels for providing intellectual services according to international trends and for its openness to current educational and research initiatives and achievements in culture and contemporary arts.

Profession orientation: strategic and sustainable development of the cohort of applicants encouraged by EACA academic leadership in education, work, and social partnership; development of effective system of EACA graduates' employment in the cultural sphere, especially in Ekaterinburg.

Finances and economy: development of conditions for efficient distribution of budgetary resources and increase in extrabudgetary incomes to fully accomplish the municipal tasks; creation of effective infrastructure and material and technical bases of EACA to develop and implement projects changing social and cultural environment of the metropolis.

The major mechanisms to achieve this aim are the following: (1) administrative mobility and openness, stakeholders' feedback allowing to predict and react to changes in the environment; (2) stimulation of loyalty and dedication to EACA, teachers' and students' compliance with professional standards and corporative culture; (3) calling for talented researchers and students in EACA; (4) introduction of current training programs for higher and continuing education meeting the international standards of quality; (5) adjustment of current educational programs to the international standards of quality by introducing effective training technologies, applying practical researches, and early exposure of students to practical work; (6) creation and implementation of EACA major projects stimulating complex

development of teachers' and students' abilities; (7) encouraging multiprofessional and interdisciplinary students' projects; (8) stimulation and support of teachers' and students' initiatives aimed at EACA modernization and increased competitiveness; (9) development and maintenance of professional network to meet EACA challenges; and (10) focusing on key directions for EACA development concentrating efforts and resources on those that are current for cultural field of Ekaterinburg.

5 Conclusion

According to the results of the monitoring in higher education in 2014–2016, EACA turned to be the most efficient institution among six municipal universities of RF. Also EACA is considered to be one of the top efficient universities in Ekaterinburg and Sverdlovskaya oblast. Since 2014 EACA showed significant results in scientific and educational activities and graduates' employment. Good results were achieved in international and financial activities.

Currently EACA is considered a driver for development of cultural environment of the city due to the following factors. Firstly, it is the quality of education. EACA train managers for all participants of the creative cluster of Ekaterinburg specialized in management technologies in culture, visual communications, journalism in culture, dance and modern plastic culture, and IT in social and cultural fields. Secondly, EACA is continuously developing scientific and research platform to study trends in cultural and industrial environments of the metropolis. EACA teaching staff is involved in implementation of the municipal policy in culture by developing and providing expertise of regulatory and methodological documentation and organizing various events. Finally, EACA is a fully functioning "factory" producing social and cultural projects and contemporary artworks both for its own gallery and other cultural sites of Ekaterinburg. EACA has been improved, thanks to highly professional and industrious team of specialists making it a competitive educational institution and attractive for applicants.

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The Leader's Role in Marketing Communication at Universities Through Social Networks



Adriana Grenčíková, Jana Španková, and Marcel Kordoš

Abstract Social networks have entered into everyday life; they are part of it. They are used not only for the private purposes of individuals but also for the business purposes of many companies. Because of effective and fast communication, they have become a part of marketing communication. In this paper authors will deal with the assessment of social networks usage in marketing communication at universities. The main goal of this paper is to assess the effectiveness of the use of sites by selected universities' faculties on Facebook social network as a communication channel for marketing purposes. For this purpose, the Social Scorecard analyses of selected universities and their Facebook pages and their assessment within Slovakia and Czech Republic will be used. In addition, a questionnaire survey regarding the social networks usage by the universities' faculties has been conducted. The issue is to have a leader being active in the social networking area, in particular creative, making up and being in charge of actions that are attractive to young people.

1 Introduction

Social networks have become a phenomenon of the twenty-first century. We come in contact with them more and more often, and they are entering into the everyday life of a large number of people. This penetration has both positive and negative aspects. As positive ones we can mention the fast and efficient communication and fast linkage of interesting contacts. The worldwide use of social networks presents a huge potential within their effective use in terms of marketing communication (Eger 2015; Boyd et al. 2007). An appropriately chosen marketing strategy being implemented by social networks can be much more successful and more effective than using the traditional marketing communication tools (Beuckels et al. 2017; He et al. 2017). Thus, social networks associate billions of potential customers, have

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worldwide advertising capabilities, and allow an accurate focus of advertising on target audience (Jamjuntra et al. 2017), as well as a very low cost is a very big advantage.

The use of social networks is not only a domain of individuals but also companies (Paniagua and Sapena 2014). If a company wants to be successful, it must adapt to current trends and develop activities on the most widespread social networks. Here comes the role of a leader in organizations; the role is to define the current reality and the goal where the company is supposed to be driven. A well-built and managed website thus becomes a great competitive advantage and a tool on how to acquire customers (Aggrawal et al. 2017) and how to create goodwill and build awareness of the company (Liébana-Cabanillas and Alonso-Dos-Santos 2017). The marketing activity development on social networks does not only relate to companies but also universities and their faculties. On social networks, there are huge numbers of young people being the main target group for the universities and faculties. Most universities are aware of this fact and are developing various social networking activities, especially within the Facebook social network (Assimakopoulos et al. 2017; Bartosik-Purgat et al. 2017). Even in this case, it is applied that, if several people do the same, the result may not be exactly the same (Bednář 2011). By creating an account, the work for faculties is not finished, but everything has just started. Very important issues here are the regular management, regular activity, and attractive content that appear on these websites and so on. The very important role here also plays the relationship of individual faculty members to the use of social networks, and particularly in this case, the presence of a leader in the field of social networking is very necessary (Kozubíková et al. 2016). This is a very problematic issue, because the competencies of leaders at universities in this area lag behind the competencies of both potential and current students. It is precisely the absence of a vision on how to use properly the huge potential of social networks for the benefit of a university; thus we have decided to deal with this issue in this study.

2 Goals and Methodology

The main objective of this study is to assess the effectiveness of the use of sites by selected universities' faculties on Facebook social network as a communication channel for marketing purposes. We have evaluated Facebook pages of selected universities' faculties within Slovakia and Czech Republic. The choice of individual faculties was conditioned by the relative study specialization and the existence of the faculty site on Facebook social network. Each site was analyzed by means of the Social Scorecard. It is a form being developed by LiveWorld Company in California. This form enables to evaluate the marketing potential of Facebook sites and is divided into the following basic parts: engagement, culture, and association with other communication channels. In addition, we conducted a questionnaire survey regarding the social networks usage by the universities' faculties. The questionnaire was composed of six questions that focused on social networks usage by

universities' faculties, finding the most common social networks used by universities' faculties, finding the share of tracking and downloading of fan sites, finding the most popular type of fan contributions, finding the rate of contribution usage stimulating the fans' activity, and finding if the regularity of adding the content is sufficient. The questionnaire was created by means of Google Forms; it was published on Internet being available exclusively to university students. Students from Czech and Slovak Republics were involved in the questionnaire survey. The questionnaire could be completed in the period of March 1, 2017, to March 10, 2017, and a total of 94 students were involved in the survey.

3 Results and Discussion

We identified whether universities' faculties in Slovakia and Czech Republic are using social networks. Many new users join different social networks each year. Based on the age structure, it is primarily about young people being a target group for universities and their faculties. This question was answered by all 94 interviewees; 91 of them answered "yes", representing 96.8%. The response "no" was marked by three respondents, and this represents 3.2%. Based on these data, we can say that the vast majority of universities' faculties operate on social networks and try to interact with students on this type of media. Respondents who marked the answer "no" did not continue to fill in the questionnaire. We have been identifying which kinds of social networks are the most used ones among the faculties. Not all social networks are suitable to be used by a university. As an example we can use the unsuitability of the social network "Pokec." It is a relatively popular social network among the target group of young people, but it is inapplicable for the needs of a university (Fig. 1).

From the figure above, the huge domination of Facebook social network can be seen. This question was answered by all respondents who confirmed the activity of their faculty on a social network. All 91 respondents have confirmed the existence of their faculty account on Facebook social network. Some faculties also operate on other social networks, which can be considered as big advantage. The second most widely used social network is YouTube, being rated by 12 respondents. In a very small number, the Twitter, LinkedIn, Google+, and other social networks are also used. However, the current dominance of Facebook does not mean that doing other social networks is useless. Over the years, Facebook's dominant position may get weaker, and other social networks may enter the market. Therefore, it is necessary to keep an eye on current trends and to respond quickly and flexibly to possible changes. It is worth mentioning the growing potential of LinkedIn Network, which has the potential to grow and is also suitable for universities and their faculties.

The next question being asked was to find out if students were taking the opportunity to be a fan and a collector of their faculty. Membership in groups on social networks is not mandatory and does not occur automatically. This is the free choice of the social network user whether or not to become a group member.

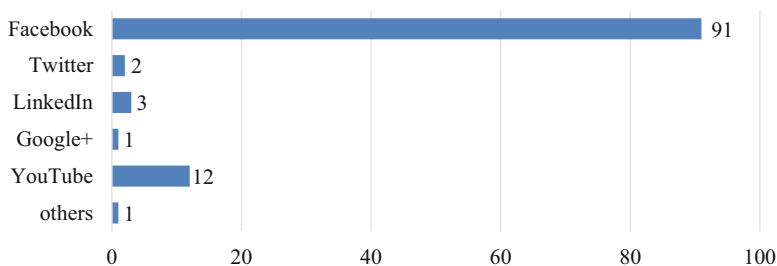


Fig. 1 The most commonly used social networks by the universities' faculties (Source: Own results)

The leaders' task is to promote the particular web page and make it attractive enough for students to profess it and become its fans. A properly functioning social networking site becomes a valuable source of information for its fans and subscribers.

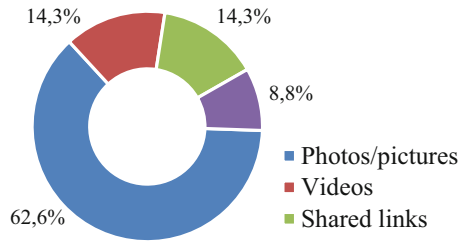
When evaluating the use of universities' faculties' sites on their social networks by their students, 90 of the 91 respondents have answered to the question no. 3 "yes." Only one respondent said that although his/her faculty has a social networking site, he/she does not use it and is not a member of it. This graph also confirms the importance to create such sites. The vast majority of students use these sites very often. As long as the site works correctly, it brings the opportunity to reach out to a large mass of students, to inform them about the success of their teachers and students, to organize competitions, and to build a reputation for the particular faculty and university.

We were assessing what kind of content is most interesting for students. The variety and balance of contributions is very important and has a significant impact on the success of a site. The monotony of shared content makes their fans bored, having very undesirable consequences. Several researches have confirmed that photographs/pictures are among the most popular types of posts on any fan site. This fact was also confirmed in our survey questionnaire.

From Fig. 2 we can see the dominance of photos being marked by 62.6% of respondents as the most interesting type of contributions. The video content and shared links are favorite for 14.3% of respondents. The least attractive are the written statuses; according to our questionnaire survey, only 8.8% of respondents consider them as very interesting. The dominance of photographs thus appears to be the most ideal solution regarding the content of faculty websites on social networks. By photos, we again highlight the importance of pictures where those students are visible – student events, conferences, their achievements, and so on. We tried to find out if faculty pages share the type of content that could be easily answered. Such content is incredibly important to interact with fans and is essential for the high level of engagement of fans. If the site wants to be successful and wants to meet its primary function, sharing this type of content is essential.

We can assume that the organization of competitions, surveys, events, and statuses with a query is not a strong aspect of universities' faculties in the Slovak

Fig. 2 The most interesting type content being shared
(Source: Own results)



and Czech Republics. Up to 69.2% of respondents indicated the option “no,” which means the absence of this kind of content on the pages of their faculties, while 30.8% of the respondents indicated the option “yes,” which is a relatively low value.

As part of the last question, we were curious about the activity of administrators who manage the universities’ faculties’ sites. This is another key component within the communication on social networks. The administrator must be active enough, to contribute regularly, to select the appropriate composition of contributions, to contribute at the right time, to know how to respond appropriately, to communicate perfectly, and to cope with conflicting situations. The following graph shows the satisfaction with the contributing process regularity of administrators who administer faculty sites on social networks.

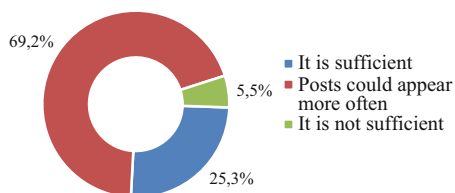
Figure 3 points out the insufficient contributions from administrators. This also confirms our results with Social Scorecard, where we have recorded low administrators’ activity with some faculties. The option “post could appear more often” has been chosen by more than 69.2% of respondents; the option “sufficient,” by 25.3% of respondents; and the option “insufficient” was marked by 5.5% of respondents. The fourth option – posts could appear less often – has not been chosen by anybody. Overall, almost 75% of respondents see deficiencies in the amount of added posts by administrators, and they do not mind adding more posts to the faculty’s guestbooks.

The questionnaire survey highlighted some of the drawbacks we observed in the analysis by using the Social Scorecard. We have confirmed that the most socially used social network by the universities’ faculties is the Facebook social network, that the most attractive content for Facebook fans is photography or picture, and also that administrators add little content that can be easily reflected. The very little number of administrators’ contributions appeared to be a big deficit; hence most fans would prefer a much bigger activity from the side of administrators.

4 Conclusions

Social networks are a phenomenon of present age. They have become the domain of young people in particular, for whom they are a part of everyday life, and their use is on a daily basis. Social networks have many adherents but also opponents. Whether we belong to any group, we have to admit their huge marketing potential. By emerging of social networks, it has been created a new medium that offers many

Fig. 3 The satisfaction of contributions by administrators by (Source: Own results)



benefits. Upon the social networks appearance, businesses must have used traditional forms of advertising. Often, they were inefficient, focused on a broad group of people and somewhat financially demanding. Social networks offer a good alternative. They are available to a huge number of people; the campaign reaches only the target group (Lindsey-Mullikin and Bonin 2017), and a huge amount of money does not need to be spent. According to Miklošík (2013), profile-oriented social networks are getting a rather dominant position. The profile by itself on a social network is a page where the author can publish and accumulate various information about the company or institution. The common feature of almost all social networks is the need to create a profile.

In terms of marketing communication needs of universities in Slovak and Czech Republics, there are important four social networks such as Facebook, YouTube, Twitter, and LinkedIn. In order for the profile to be interesting, compelling, and meeting its purpose, it is necessary to select the best possible type of presentation, to specify the rules on how to input the new content (who will be responsible for the content, who will manage the profile), the interlink with the active way of promoting and presenting the content to be published on the profile of the institution. Based on what have been stated above, we have come to the conclusion that it is very necessary to have a leader being active in the social networking area, in particular creative, making up and being in charge of actions that are attractive to young people. It's not just about publishing the content, but it's about a constant activity within creating an event, which will then be published on social network. Kunertova (2011) argues that taking into account the current demographic composition of active social network users, we found out that the use of social networks does not suit every business. Businesses and institutions with a target age group of 18–34 years of age can benefit from maximum efficiency. The potential for social networking in marketing communication will grow along with an increase in computer literacy and a consequent increase in the number of social network users. It has become an appropriate medium not only for companies but also for universities. The interest group of universities consists predominantly of young people looking for a suitable faculty/education and making decisions to study at the university as well as current university students for whom social networks mean a source of information about current events at their faculty.

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Peculiarities of Leadership Perception by Modern International University Students



Alla Vavilina, Olga Gorlova, and Anna Sardarian

Abstract The article analyzes the way students perceive leadership and leader's personality qualities at the modern international university. The article provides the results of the author's original questionnaire survey of students in the Economics Faculty of Peoples' Friendship University of Russia (RUDN University) on the perception of leader's personal qualities, the key characteristics of the modern leader, and the priorities for training leaders in the institution of higher professional education. For example, students consider self-confidence, independent nature, willingness to risk, public speaking skills, and a good sense of humor as the most important leader's merits. The students indicated the lectures delivered by the well-known heads of companies, practical trainings provided by training companies, and specialized courses in leadership within the university curriculum as the basic necessary measures to develop leadership skills at the university. The respondents described the following as the leadership skills, which need to be developed: self-confidence, independent nature, public speaking skills, willingness to risk, and good intuition. The survey resulted in conclusion that most students consider it advisable to purposefully develop leadership skills and demonstrated their willingness to participate in the process of their leadership formation within the framework of higher professional education.

1 Introduction

Leadership is one of the most interesting psychological and social phenomena, which has been described in many papers; however, the management science has neither unified terminology in the field of leadership nor a specific algorithm of leadership behavior nor a system of individual qualities that define the leader nor a single theory of leadership. Moreover, management scholars and practitioners

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debate whether it is possible to become a leader or a person needs to be born a leader, i.e., it is not realistic to develop leadership skills in an individual. Thus, the Eastern management philosophy most often maintains the first point of views, whereas in the West it is not only believed that a person can become a leader, but also there is a promotion of applied programs, practical trainings for improving leadership skills and leadership behavior, and new centers for studying this phenomenon; scientific works are established and textbooks on the development of leadership qualities and skills are published.

Interest in leadership today is caused by the fact (as it is becoming more and more evident today) that the effectiveness of the organization's activities is not always the result of large financial investments or a nicely chosen niche in the market, but it is also dependent on the leader who heads this organization. In business practice, we can witness many cases where with limited resources and high competition in the market, the company managed to become one of the market leaders only thanks to the actions of its top managers. Obviously, these leaders are an example of unique managers who are usually called leaders. Through masterly, charismatic leadership, the company manages to achieve the most ambitious goals, exponentially to increase the labor productivity of employees by raising their job satisfaction, creating a unique organizational culture, including a strong and recognizable image in the market. Today leadership is especially popular among young people, including students of institutions of higher professional education studying on the educational program track "management," "human resources management," etc.

2 Literature Review

To date, scientific literature has formed a particular set of knowledge reflecting certain aspects of leadership, which is studied in the framework of management sciences, sociology, political science, and psychology. Most scientific works on leadership are written by American researchers; in the United States today, there are more than three dozen specialized centers for studying this issue (Bendas 2000).

In order to explain the leadership phenomenon since the middle of the past century, a lot of scholars have been studying the inherited leadership traits trying to describe a leader and distinguish him/her from ordinary people and systematize these qualities. Among the founders of leadership trait theory, we can name Stogdill (1974), Mann (1959), and Bennis (1989). However, this theory was not subsequently recognized as perfect, since the presence of the detailed qualities does not always guarantee that the person will be the leader. A number of further studies to identify the correlation of a particular characteristic of a person nature and leadership traits did not always confirm this direct relationship, which led the researchers of leadership to approach the study of this phenomenon from the other side, the behavioral one. The followers of this concept studied the behavior patterns and leaders with the goal to develop a unified algorithm of leadership behavior and introduce it into practical curricula training leaders. Among the best-known

propagandists of this approach, we can name Lewin et al. (1939), Likert (1967), Blake and Mouton (1985), and Stogdill (1952). In the behavioral approach to leadership, the researchers studied leadership styles, as well as indirect factors in the organization that contribute to the leader's activities (organizational culture, conflict level in the team, social and cultural environment, political and economic situation, etc.).

In the middle of the twentieth century in Western psychology, a new tendency in the research of leadership emerged, according to which a leader is not just a function of interpersonal relations or individual behavior but a basic process in the structuring of the whole team activity. Humanistic theories of personality (Argyris 1976; McGregor 1969) consider the leader as the generator of ideas and motivator employees subordinate to him/her. Since the end of the twentieth century, a tendency has been seen toward the convergence and interaction of various approaches and concepts of leadership and the emergence of a new, integrated approach to leadership, which is often called situational (Andriyanchenko 2012).

Among the modern researchers of leadership, we can name Goleman et al. (2002), Cooper (2007), Bendas (2017), and Sheinov (2008).

3 Research Methods

In the article the authors apply the following methods: multivariate analysis, examination, generalization, comparison, sociological survey (in particular questionnaire survey), factor analysis, and grouping.

The sources on which the provisions and conclusions of this article are based are academic works of foreign and domestic specialists, as well as the authors' original research of more than 200 students of the Management Department, the Economics Faculty, the International RUDN University (2015–2016).

The survey was conducted in groups of students specializing in "management" who replied the questionnaire (Fig. 1), containing a number of questions about the perception of themselves as a leader, approaches to leadership, the basic characteristics of the modern leader, and leadership qualities, which, according to students, they need to develop in the framework of training at the international university. Among the proposed characteristics of the leader they selected as the most important high intellectual standard, energy, self-confidence, independent nature, public speaking abilities, etc. Altogether, it was proposed to select 14 individual characteristics. The choice of these characteristics was based both on the research materials of well-known authors dealing with leadership issues and on the author's own research (Komarova et al. 2007; Vavilina and Shcherbakova 2011).

Questionnaire
 “Your perception of leadership”
 Dear respondent!

1. Do you think that you are a leader?
 Yes No I have leader qualities but they do not reach the fullest potential.
2. Do you think:
 A person needs to be born a leader A person can become a leader
3. What qualities do you think characterized the leader? (Tick maximum of 5 basic qualities).

high intellectual standard	
self-confidence	
energy in the activity	
adaptability	
openness	
empathy	
tranquility	
public speaking ability	
good intuition	
diplomacy	
insight into human nature	
willingness to risk	
sense of humor	
independent nature	
Other	

Fig. 1 A part of the questionnaire “Your perception of leadership” (Source: the authors)

4 Results and Discussion

As a result of the questionnaires distributed among students, it was found out that 17% of students identify themselves as leaders. Forty-three percent do not consider themselves leaders, and 40% are sure that their leadership qualities have not been completely developed (Fig. 2). Such a low percentage of people perceiving themselves as leaders can be accounted both for a specific perception of the leader in Russian culture (only the brightest, charismatic people who achieved absolute success are named leaders) and the fact that BA students due to their age cannot objectively assess themselves and their leadership qualities and often underestimate them.

35.9% of the students surveyed believe that the leader can only be born, and it is almost impossible to become a leader in full. 64.1% of respondents take a different view of leadership. It should be noted that in Russia the approach based on the possibility to learn leadership behavior has gained popularity only in the past two decades, when a variety of programs for developing leadership qualities and skills began to appear on the market of consulting and training services and active propaganda of self-development, including leadership building, started.

The respondents named the following things among the main qualities characterizing the modern leader: self-confidence (86.4%), independence of character (76.7%), public speaking abilities (62.1%), willingness to risk (51.9%), and a sense of humor (49.1%). To a lesser extent, they named diplomacy (6.8%),

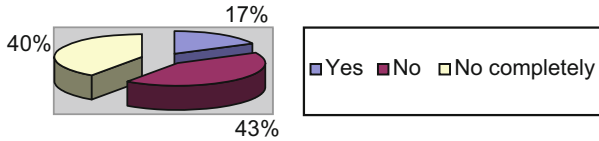


Fig. 2 The respondents’ replies to the question “Do you consider yourself a leader?” (Source: the authors (on the basis of students’ survey, Economics Faculty, RUDN University, 2015–2016))

Table 1 The basic qualities characterizing the modern leader according to the respondents

Personal qualities	Replies, %
High intellectual standard	32
Self-confidence	86.4
Energy in the activity	35.4
Adaptability	8.3
Openness	15
Empathy	11.1
Tranquility	23.3
Public speaking ability	62.1
Good insight	17.5
Diplomacy	6.8
Insight into human nature	10.7
Willingness to risk	51.9
Sense of humor	49.1
Independent nature	76.7

Source: the authors (on the basis of students’ survey, Economics Faculty, RUDN University, 2015–2016)

adaptability (8.3%), ability to understand people (10.7%), and empathy (11.1%) as the leadership qualities (Table 1).

Among the basic events aimed at the development of a personality leadership, which according to students should be included in the educational process, they named practical trainings provided by specialized companies’ representatives (81.5%), lectures delivered by famous CEOs (64.6%), and specialized courses in leadership in the framework of university curricula (61.1%). The least sought-after events aimed at the development of the leadership capacity according to students are extracurricular activities (25.7%) and participation in project groups (22.7%) (Fig. 3).

It is noteworthy that in the framework of the educational process at the Economics Faculty, RUDN University, the courses such as “culture of personal work,” “methods and styles of managerial work,” “modern technologies in human resources developments,” “career management,” etc. are taught. The disciplines aimed at the development of leadership skill – “Leadership” or “Managerial Leadership” – cannot be without interest. On the Russian consulting market today, there are all kinds of training programs. The authors think that the most interesting among them are “self-

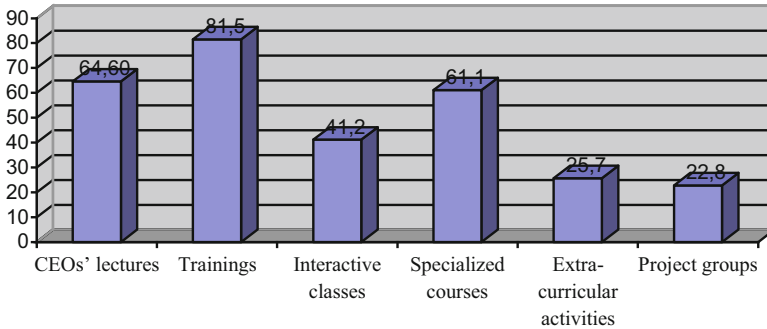


Fig. 3 Respondents' replies to the question "Which events for the development of your leadership skills would you like to have in your university?" (Source: (the authors on the basis of management students' survey, the Economics Faculty, RUDN University, 2015–2016))

coaching," "success management: skills to achieve personal effectiveness," "leader charisma," "emotional leadership," etc.

In the list of the most important skills that students would like to obtain they named self-confidence (72.3%), independent character (60.7%), ability to speak publicly (60.1%), willingness to risk (55.3%), and good intuition (50.2%). The students did not identify individual characteristics of a leader (empathy, tranquility, adaptability, diplomacy) as a priority for their further development (Table 2).

Thus, the students, as a rule, have formed a stereotypical image of the leader, the main characteristics of which can be called self-confidence, independence, willingness for risk, and brilliant public speaking abilities. These qualities are associated by students with the leader and they would like to develop them within the framework of their training at the university. However, in the authors' opinion, it is also necessary to inform the students about other, not less important, individual characteristics of the leader, such as: tranquility, empathy, openness, adaptability, diplomacy, ability to understand people, etc.

5 Conclusion

The goals set for the authors' research (to determine the perception of the leadership by students studying "management," to reveal the main characteristics of modern leaders, the necessary events to develop leadership qualities and skills in the process of training in higher education institutions) were achieved. Based on the demand for practical trainings in leadership in the consulting market, as well as the growing interest in studying the aspects of leadership in the theoretical literature, it is possible to forecast further interest in this issue, especially among the young generation, including students of higher educational institutions. In this regard, the authors may recommend to conduct regular research in the field of student's requests as consumers of educational services including for the development of leadership capacity,

Table 2 Key leadership skills respondent need to develop

Personal qualities	Replies, %
High intellectual standard	37.4
Self-confidence	72.3
Energy in the activity	25.7
Adaptability	8.3
Openness	17
Empathy	6.3
Tranquility	7.3
Public speaking ability	60.1
Good insight	50.2
Diplomacy	10.1
Insight into human nature	33.5
Willingness to risk	55.3
Sense of humor	46.1
Independent nature	60.7

Source: the authors (on the basis of management students' survey, the Economics Faculty, RUDN University, 2015–2016)

to introduce educational leadership courses in educational programs, and to invite consultants in the field of leadership, as well as leaders of well-known companies as lecturers.

The results obtained in the course of this research can be applied to the development of training programs in leadership for institutions of higher professional education, to the development of leadership skills among modern young people, as well as to further scientific and practical research on leadership issues.

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Integration Processes and Leadership in Higher Education



Anatoly Shishkin, Alla Ryzhakova, and Artyom Latyshov

Abstract The article examines the leadership of universities on the world educational platform and the ways for Russian universities to join the scope of world-class leaders. The study reveals the structural elements of the system of Russian higher education and analyzes the state methods of impact on it, prospective projects, and development programs. Finally, it is proved in the article that financial and project assistance of the state does not mean an immediate and unconditional “breakthrough” for the university: historical factors of the development of the Russian higher education system, successful management, qualifications of teachers, and established image and reputation of the university have a significant impact on the representation of Russian universities in world rankings, constantly monitored by the Ministry of Education and Science of the Russian Federation, and, as a consequence, their reorganization in the form of accession to the United Nations educational organizations. As a result, over a thousand universities have been closed out for several years of optimization, which, on the one hand, slows the progressive development of higher education institutions that had absorbed “inefficient” higher education institutions and on the other marked prospects for growth, due to enlargement of the structure, international cooperation, and growth of human and scientific potential.

1 Introduction

Universities around the world are striving to take a worthy place, leading positions in the world educational space. In most cases, it brings its dividends. In addition to a favorable, recognizable image, it brings quite tangible financial well-being to the university. High places in the well-known rating systems of QS, Times, and others not only add prestige at the national level but also help attract foreign students. World ratings allow universities to look at themselves from the outside and see new

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growth points. Being included into the ratings is a reflection of the university's aspiration for world-class status and impacts the social development (Chvátalová 2016). This means stable, competitive positions of the university in the world market of educational services. Therefore, there is a serious struggle to become a world-class university, flagship, and elite (Simionescu et al. 2016). Knowledge creation became an important prerequisite for the development of business and economics (Koudelková and Svobodová 2014).

The development of higher education in Russia was objectively accompanied by the transformation of its role, place, and importance in the society. At the beginning of "perestroika" (restructuring) in 1985, the higher school, like the entire economy of Russia, was in the stage of survival. The political superstructure cracked. The role of the state was reduced to zero. There was no clear, well-adjusted strategy. On this basis private schools began to grow "as mushrooms after the rain." By 2000, there were about 350 of them, only half as many as state ones. Preparation was conducted according to the specialties, which did not require significant material and technical resources and complex educational programs (Zlyvko et al. 2014).

Gradually, the market of educational services became competitive; more and more people with modern competencies and practical skills were required. Applicants became more responsive to the choice of university and specialty. There was a natural selection of universities. Only those with high-quality teachers, a good material, and technical base and reputation in the market survived (Gulicheva and Osipova 2017).

Universities of Russia were increasingly drawn into the process of global recognition of their educational programs. At the national level, this manifested in the social and professional accreditation of the main professional educational programs, at the global level – in international accreditation (Nikishkin 2017; Ministry of Education of Russian Federation 2017a, b).

This is done to show the superiority and competitiveness of the evaluated educational programs, the best quality of education, large volume, and depth of the researches (Strielkowski 2014). However, until recently the recognition of the status of the world class for the university has been subjective. Historically, the universities like Harvard and Yale University in the USA and Oxford and Cambridge in the UK have been widely heard. Why? Just because their graduates have a high salary and social status.

2 World-Class Universities-Leaders: World Rankings and Success Factors

Let us consider what the Russian system of higher education is composed of and how it correlates with the European and American models of education. This must be done to correctly determine the vector of development of Russian education, taking into account both world trends and national characteristics (Supporting Universities, 2017).

A modern trend, involving sustainable economic development through the construction of a knowledge society, is mainly based on tertiary education. In Russia it includes (with some peculiarities) secondary specialized and higher education.

The following institutional models are distinguished in the higher education system:

- Research universities
- Entrepreneurial universities
- Federal universities
- Regional universities
- Humanitarian universities
- Polytechnic universities

The structure of these universities consists of units with short-term training programs, colleges, lyceums, etc.

Priorities for the development of these two areas (secondary special and higher education) and their balance largely determine the high-quality provision of professional, competent personnel for socioeconomic development of the country (Grishin et al. 2013).

Development of objective indicators, criteria for assessing the status of the university, recognizing its world level or elitism is required. At the international level, a well-known method of ranking is used, which made it possible to identify/designate the place of the university in the list of leading universities of the world.

The most famous are two international university rankings. These are the rankings of the world's universities, conducted by the Times Publishing Company – The Times Higher Education World University Rankings (THE'S) and the Shanghai Jiao Tong University World University Rankings (SJTU) – Academic Ranking of World Universities (ARWU).

The 2004 list of the Times magazine included 200 of the world's top universities. The Shanghai Ranking List (SJTU) of 2003 included the top 500 universities in the world.

Both rankings were based on a combination of subjective assessments and objective data. But the Shanghai ranking seemed stricter, as it included prestigious international scientific awards (Nobel Prize and Fields Medal).

Among the main indicators characterizing the world-class universities, undoubtedly, the quality of education and the degree of graduates' ability to solve complex real problems of economic and social development are the main priorities. Another feature that specialists are valued for is their ability to conduct scientific research in accordance with modern requirements of technology, the relevance of their publications in the best scientific issues (Savitskaya and Altunina 2017).

Comparison of the rating lists (rankings) allows to expand the research due to the geographical location of the best universities in the world (see Table 1).

The analysis of world tendencies in higher education showed that universities-world-class leaders are characterized by the following achievements:

Table 1 Universities-leaders of world rankings (ARWU, CWUR, THE, QS)

Name of the university	Country	Rankings			
		ARWU	CWUR	THE	QS
Harvard University	USA	1	1	6	3
Stanford University	USA	2	2	3	2
University of California, Berkeley	USA	3	7	10-11	27
Cambridge University	Great Britain	4	4	4	5
Massachusetts Institute of Technology	USA	5	3	5	1
Princeton University	USA	6	9	7	13
University of Oxford	Great Britain	7	5	1	6
California Institute of Technology	USA	8	11	2	4
Columbia University	USA	9	6	16	18
University of Chicago	USA	10	8	10-11	10
Yale University	USA	11	10	12	16
Imperial College London	Great Britain	22	35	8	8
University College London	Great Britain	17	31	15	7
Swiss Federal Institute of Technology Zurich	Switzerland	19	23	9	9

Source: Own compilations

- Highly qualified, highly paid, mobile teaching staff
- Teachers, known as leaders in their field of science, with high rates of publication activity and citation
- Significant volume and efficiency of scientific researches, their share in the total revenues of the university
- Rational combination of government and nongovernment sources of financing, which allows sustainable development of the university
- A high proportion of foreign students and their mobility
- Modern management system
- Material and technical base for teaching and research
- Availability of an academic campus for social, cultural, and sport development of the university staff
- Image of the university and its contribution to the development of the region

The creation of such a university obviously requires enormous material and financial costs. The return is not so obvious in the short term. The universities indicated as leaders are entrepreneurial structures. This has been a norm for Western universities for centuries, but it is an innovation for Russian universities. In these conditions, the leaders were the Russian universities with serious and permanent state support. Though there are exceptions.

A striking example is Plekhanov Russian University of Economics. Favorable historical reputation and successful management for the last 10 years have allowed increasing the educational and scientific and methodological potential of the university.

Therefore, one of the directions for achieving high results in the activity of higher education is the formation of socioeconomic prerequisites and conditions of integrated associations in higher education.

In the Russian Federation, the desire for leadership is supported by the state (Vorobeva and Krakovetskaya 2017). Among the latest programs of the Ministry of Education and Science of the Russian Federation are the creation and support of federal universities (since 2005), which are integrated innovative research and education complexes that provide training and research for critical clusters within the framework of socioeconomic development programs of regions in federal districts; national research universities (since 2008), equally effective in educational and scientific activities, providing a transfer of developed technologies to the Russian economy, as well as supporting universities (since 2015), aimed at the social and economic development of the subjects of Russia by creating centers of innovative, technological, and social development of the regions.

However, in this study the most interesting is the ministerial project “5–100” (from 2013), similar to the “Excellence Initiative” implemented by the governments of many countries; the program aimed not only at improving the quality of the higher education system but also at improving the positions of universities in world rankings (entering the top 100 leading global educational rankings by 2020). In 2017, 15 universities out of more than 20 universities receiving constant financial support from the state under this program entered the QS World University Rankings (one of the universities entered the top 250). Lomonosov Moscow State University was able to enter the first hundreds of the universities.

The transformation of these institutions is necessary and is due to the reasons described further. For almost 10–15 years, Russia’s economy has been either in crisis or in the stage of stagnation or recession. Under these conditions, it was not possible to provide educational sphere with sufficient amounts of funding.

Strong competition in the market of educational services was facilitated by the emergence of many private, non-state educational organizations. In 2003, Russia joined the Bologna process, which opened Russia’s way into a space of higher education in Europe but also required serious, fundamental changes in the scientific and educational sphere of Russia.

3 The Role of the State in the Functioning of HEIs

The Anglo-Saxon model (the USA and Great Britain) of forming world-class universities was mainly based on a private initiative (Strielkowski et al. 2016). The same can be said about the German (European) model. Before 1917, private business was also prevalent in Russian education. It is worth mentioning an over century-long history of establishing Plekhanov Russian University of Economics. After 1917, the role of the state in the creation and functioning of higher education institutions was predominant (Stukalova et al. 2016).

Increased global crises (1998, 2008, 2015) and the accumulated world experience have been pushing states to use new strategies for the development of higher education.

A well-known class of economic processes of business consolidation, so-called merger and acquisition procedure, has been developed in the system of higher education of the Russian Federation in the form of affiliation or official optimization (Shakirova 2016). Over the past 3 years in Russia, more than 1100 universities (mostly private universities and branches) have ceased to exist. The optimization process was based on the monitoring of the efficiency of the universities. The universities, recognized as inefficient, joined the university-leader and lost their independence and ceased to exist as a legal entity. The university-leader has got all the rights and obligations of the affiliated universities (see Table 2).

The Ministry of Education of the Russian Federation has supported and encouraged universities to merge and transform into a new university, hoping for a synergistic effect.

Another approach was the serious financial support of the leading universities of the country through competitive selection of the best development programs. The universities with the potential to be transformed into higher education institutions of the world level, occupying the upper levels of world rankings of education and science, were selected. The planned effect has not been achieved (Kudashov and Novoselova 2015). In the world rankings, less than 25 universities from Russia are represented (see Table 3), and some of them (e.g., Plekhanov Russian University of Economics) have not received subsidies from the development budget (Stukalova et al. 2015).

Table 2 Examples of the HEIs affiliation in Moscow

University-leader	Affiliated HEIs
Plekhanov Russian University of Economics	1. Interdisciplinary Institute of Advanced Training
	2. Russian State University of Trade and Economics
	3. Moscow State University of Economics, Statistics, and Informatics
	4. Saratov State Socio-Economic University
Higher School of Economics	1. Tikhonov Moscow State Institute of Electronics and Mathematics
	2. Management Training Center
	3. State Academy of Investment Specialists
Financial University under the Government of the Russian Federation	1. All-Russian State Distance-Learning Institute Of Finance And Economics
	2. Russian State Tax Academy of the Ministry of Finance of the Russian Federation
	3. State University of the Ministry of Finance of the Russian Federation

Source: Own compilations

Table 3 Russian HEIs in the world rankings

University	Academic Ranking of World Universities (ARWU) 2016 ¹	The Center for World University Rankings (CWUR) 2016 ²	Times Higher Education World University Rankings 2016–2017 ³	QS World University Rankings 2017 ⁴
Lomonosov Moscow State University	87	77	188–189	95–96
Saint Petersburg University	301–400	430	401–500	240–241
Novosibirsk State University	401–500	959	401–500	250–251
Moscow Institute of Physics and Technology (State University)	–	218	301–350	355–356
MEPhI National Research Nuclear University	–	756	401–500	373–377
ITMO University	–	–	351–400	373–377
Higher School of Economics ⁵	–	–	401–500	382–383
Kazan Federal University ⁵	–	–	401–500	441–450
Tomsk Polytechnic University	–	–	501–600	386–387
National Research Tomsk State University	–	–	501–600	323–324
Bauman Moscow State Technical University	–	–	601–800	291
Plekhanov Russian University of Economics ⁵	–	–	–	801+

Source: Own compilations

¹Academic Ranking of World Universities 2016 (www.shanghairanking.com/index.html)

²The Center for World University Rankings (CWUR) (<http://cwur.org>)

³The Times Higher Education World University Rankings 2016–2017 (www.timeshighereducation.com)

⁴The QS World University Rankings 2018 (www.topuniversities.com/qs-world-university-rankings)

⁵Universities that have “stars” given by the QS Stars University Ratings.

4 Conclusions

Obviously, there are no universal prescriptions for university development to the world level. However, it is clear that today it is very difficult to manage without state support, even for sustainable universities. And then it should be kept in mind that when creating a university, the state pursues certain goals and the university functions in a certain environment.

Therefore, it is necessary to monitor and analyze the direct and feedback relations of the university. Undoubtedly, the Russian experience of state support and development of higher education institutions is unique to the world community: the geographical extent of Russia and the heterogeneous development of regional scientific and educational centers determine their focus on the needs of the regions (depending on the specialization of the university) and their socioeconomic development. And the situation in the region influences the parameters of the university development. Under these conditions, the state acts as a regulator that determines development of the most promising educational and scientific centers through the implemented programs.

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The Analysis of Leadership in Russian Scientific Sphere



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Abstract The paper is dedicated to the analysis of the condition of the Russian scientific sphere. After the breakup of the Soviet Union, science was in stagnation because of numerous problems such as lack of systematization, bad conditions for scientists' work, and many others. To solve those problems nowadays, funding has been increased, additional motivational factors have been added, and measures have been implemented to decrease corruption in scientific sphere. According to forecast, in 2019–2020 condition of science will improve, and Russia will strengthen its positions in the global ratings. This article covers the issues of establishment of the Russian science and presents generalized data in graph forms. These data concern global rating, expenditure, budget, and position of Russia in comparison with other developed countries. The analysis is an inseparable part of a scientific article as it allows to follow the dynamics of the development of the Russian science. It is essential that this paper has a very clear focus and practical importance strengthened by target setting, analysis of the problem, and marked directions of its problem-solving in order to improve indicators of statistic data as well as indicators connected with leadership and dominance implied in real life.

1 Introduction

In modern world it is significant to try to establish oneself as a leader of the scientific sphere (Alimo Metcalfe and Alban Metcalfe 2001). This provides priority and big advantages such as authority, huge investments, and new possibilities for development. Therefore, countries fight for leading positions and in such a way cause competition and scientific discoveries (Fischer 2017). Russia does not fall behind

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in this fight. In some spheres it occupies leading positions, but some spheres still lag far behind indexes of other countries.

One has to remember that in the scientific sphere, Russia is currently ranked among 20 countries with the highest scientific indexes. However, in order to get better results, it seems necessary and appropriate also to invest into science and attempt to improve the system of scientific work in the country (Shishkin 2012).

Moreover, one needs to recognize that we live in the era of information and digitalization. These two factors become very important in all spheres of our lives including science and research (Chiabai et al. 2014; Zielińska 2016). Information (which is the new oil of the twenty-first century) is crucial in business and economics but also enters the domain of research and development (R&D) as well as science and technology (Koudelková and Svobodová 2014; Jiroudková et al. 2015).

2 Literature Review

For bigger distinctiveness and accuracy of formulations, this paper is based on data relying on scientific sources popular and common both in Russian and foreign literature. The paper “Expenditures on science in Russia and the leading countries of the world” by Ratay (2016) covers and analyzes different financial indexes of scientific sphere of Russian Federation. It also offers various innovations for development of science. There is evidence that science and progress also support economic growth and development and therefore are very prosperous for any economy (Strielkowski and Höschle 2016).

Alimo-Metcalfe and Alban-Metcalfe (2001) draw conclusions from their comprehensive overview of the American studies on leadership as psychological factor and how important the status of a leader is for humans. The article by Petrova (2016) “Innovative leadership” is completely dedicated to novelties and innovations.

Moreover, Gulicheva and Osipova (2017) discuss the profitability and commercialization of higher education with a special focus on Russian Federation and propose the program-target method of pricing for international educational services.

Furthermore, Zlyvko et al. (2014) discuss the importance of the technology platforms in Russia and other countries and conclude that they represent an important issue in commercialization and monetization of science.

All in all, the scientific sphere represents a multilayer and multidimensional approach where many fields of sciences overlap. The discussion of whether and how the system of research and science, as well as research grants, supports for the scientists and researchers should be designed, and operation is not an easy one. Quite often, it requires a multi-angle view and analysis.

3 Research Methods

The paper is based on empirical methods of research (comparison and data analysis), theoretical research (analysis and synthesis of information), abstraction, and ascension from abstract to concrete.

For collecting of data and its analysis, the methods of statistical analysis and forecasting were applied. Official statistics of previous years was used. Forecasting was calculated on the grounds of official data.

4 Results and Discussion

In 2015, in Russia the volume of domestic expenditure on research and developments reached 914.7 billion of Russian rubles, which equals to 40.5 billion of US dollars (calculation on parity rate of buying capacity). According to this index, Russia ranks number 9 in the world and is behind the USA, China, Japan, the Republic of Korea, France, India, and Great Britain. As compared with 1995, Russia has slightly increased its positions in the ratings of the leading countries of the world by the size of domestic expenditure on research and development and moved from number 10 to number 9. China has substantially strengthened its positions moving from the seventh to the second place in the ratings thanks to annual increase of research and development spending (at average by 17.1%). Correspondingly, Japan shifted to the third place and Germany to the fourth. The Republic of Korea which has the annual increase of expenditure by 8.1% has improved its position in the ratings leaving France and Great Britain behind (sixth and eighth places). Other countries of the top 10 such as Italy and Canada didn't hold their positions. India, the data about which is available only since 2011, by absolute value of expenditures leaves Great Britain and Russia behind (Ratai 2016) (Fig. 1).

In 2014 the quantity of scientific articles made was 817,704.9. Twenty-six percent out of those were published in the USA. China came second with its share of 11% of the total number of articles. Japan ranked number 3 with 41,705.7 articles published in 2014. In Russia in 2014, there were 14,150.9 published articles. By this index our country is number 15, falling behind the USA by 198,243.3 articles. In comparison with 2013, Russia has increased its index by 14%; however the share of Russia in the world rating makes less than 1.7%. Unfortunately, Russia's indexes are very low taking into account its scientific potential and possibilities (Fig. 2).

Citizen science plays an important role in the development of scientific sphere as many discoveries are made by nonprofessionals (Le Mouel and Squicciarini 2015). Scientist enthusiasts are often invited to solve particularly important scientific problems, thus enhancing popularization of science.

Indexes mentioned below demonstrate that every year funding of science increases. This means that the sphere of science gains priority. Forecasting the situation for the next few years, it is possible to conclude that by 2020 funding of

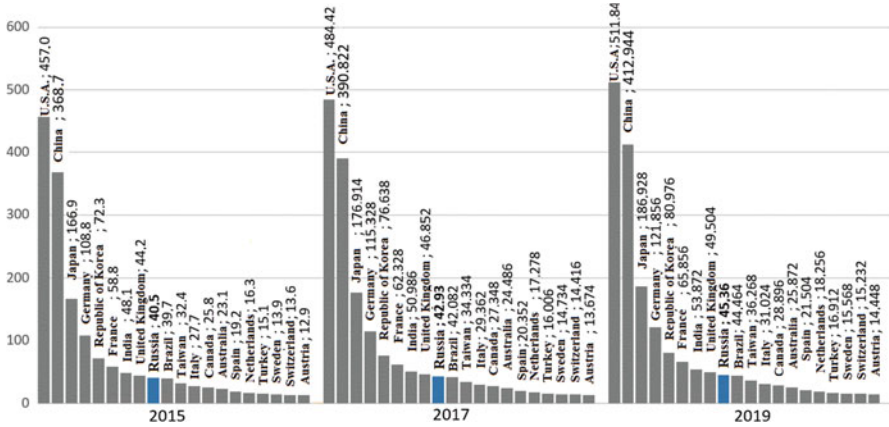


Fig. 1 Countries – leaders by domestic expenditure on research and development (in billion US dollars) (Source: Ratay (2016). Expenditures on science in Russia and the leading countries of the world. “Science, technology and innovations, (19). https://issek.hse.ru/data/2016/09/20/1123278216/NTI_N_19_20092016.pdf)

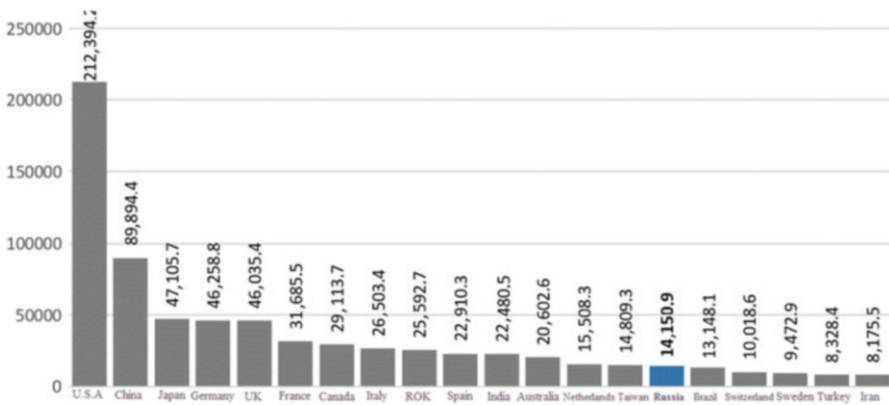


Fig. 2 World rating on scientific and research activity, number of articles (Source: Connecting to knowledge, (2015b). OECD science, technology and industry scoreboard)

science is going to increase by 35%. Average annual growth will be about 6% (Fig. 3).

At the moment development of technical sciences is moving faster than that of humanities, and the number of technical scientists increases, while the number of humanities scholars decreases. According to the forecast, by 2019 the number of humanities scholars will drop by 2%, and the number of technical scientists will increase by 1.4%. According to the research of foreign scientists, the phenomenon of “brain drain” will only grow in popularity (Appelt et al. 2015) (Fig. 4).

During 2016 the Russian Agency for Patents and Trademarks registered 41,587 applications for patents, and 33,536 were approved. In comparison with previous

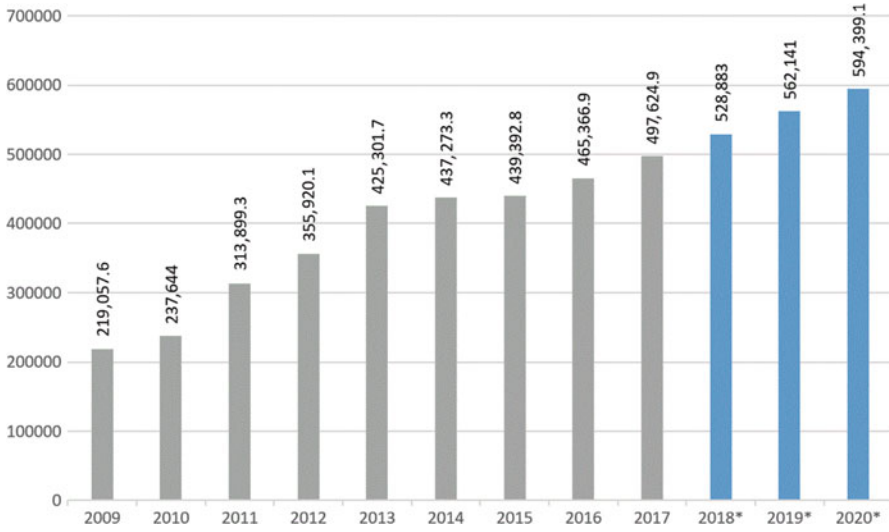


Fig. 3 Expenditures on civil science from the federal budget (in million Russian rubles) (Source: Federal statistics office http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/science_and_innovations/science/#)

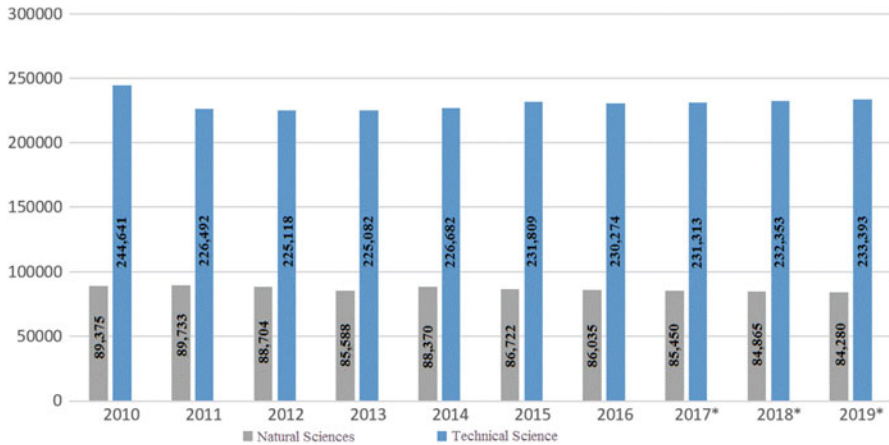


Fig. 4 Number of researchers by scientific sphere in Russian Federation (number of people) (Source: Federal statistics office. Number of researchers (2017). http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/science_and_innovations/science/#)

years, the number of approved decreased. According to forecasts the number of patent applications will increase. In 2019, about 45,029 applications will be registered which is by 8.28% more than in 2016. However, the number of granted patents will decrease. In 2019 about 33,236 patents will be granted, which is by 0.9% less in comparison with the data of 2016 (Fig. 5).

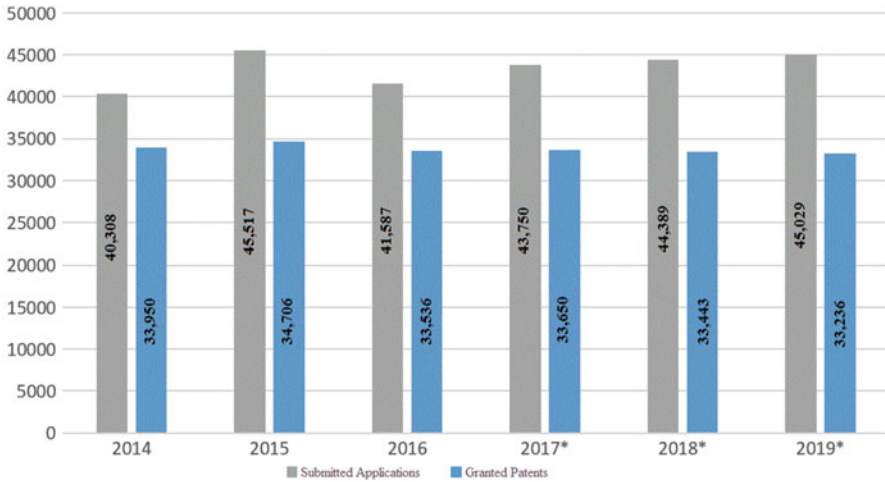


Fig. 5 Dynamics of indexes on patents for invention (number of patents) (Source: Overall results of activity of the Russian Agency for Patents and Trademarks in 2016 and tasks for 2017 (2016). <http://www.rupto.ru/about/stat>)

5 Conclusions

Leadership in scientific sphere is of immense importance. Leading positions result in higher profits, new possibilities, and significant, grand-scale aims. Russia stands at the secondary level by the level of deductions for science development from GDP. However, each year scientists set more and more aims regarding possible scientific achievements. To reach the top result, it is necessary to motivate and stimulate scientific workers by increasing the funding of their projects and developments. As the main results and outcomes of our research, the following problems have been detected: poor level of financing of various scientific sectors, low quality of scientific education, rough conditions for scientists’ work, and weak motivational factors for development of scientists’ activity.

All in all, in order to solve these problems, it is necessary to take certain measures such as popularization of science among population, strengthening of quality of education, improvement of conditions for scientists, and increase of funding to get more resources and work positions.

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Part V
Leadership in Educational Practice

The System of Qualification Enhancement for Geography Teachers at Kazan Federal University: A Way to Professional Leadership



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Abstract The relevance of the research is associated with the Russian education being included into the world educational space, the creative activity of teachers, and their leadership skills gaining importance. Due to this, in the paper, qualification enhancement of geography teachers is viewed in conditions of transformation of the contemporary education. The leading approach to studying the problem is the systemic and didactic approach that allows the integrated consideration of the process of transformation of the system of qualification enhancement for geography teachers taking place at Kazan Federal University. In the paper, the materials on testing out the online- and classroom-based organization forms of the geography teachers' qualification enhancement process are presented. The components of transformation of the teachers' qualification enhancement are described – the education itself, the pedagogical education, a teacher as a subject of professional activity, and a teacher in the role of a course training participant. The formal logical associations of the key notions “creativity – task (solving a problem) – competencies” have been found out, and the systemic layout of qualification enhancement process has been given ground. The conceptual research of transformation of qualification enhancement for geography teachers relied on accepting the universal values of holism, development of creative and leadership potential, and the competency-based approach. Hence the materials of the paper are of practical value for a wide range of teachers specializing on andragogy.

1 Introduction

Transformation of education is one of today's priorities at Kazan Federal University. Within pedagogical education, the concept of four T's is implemented – the transformation of the very education system as a whole, that of the pedagogical education system, that of learners, and that of teachers. The process of reorganization of the

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pedagogical education, or, more precisely, of the four above components, is called the pedagogical education transformation quadrature. Quadrature, or squaring, is a familiar problem of building a circle the area of which is equal to that of a square; it cannot be solved by trivial methods. The main objective of the qualification enhancement system (QE) at Kazan Federal University is to create an efficient system for qualification enhancement of pedagogical staff of the Republic of Tatarstan and the Volga Federal District within the new model of continuous pedagogical education being implemented at Kazan (Volga Region) Federal University that is based on cooperation of the university, basic schools, and the system of extended professional (pedagogical) education. In order to attain this objective, the QE programs have to be aimed at fulfilling the priority tasks of the education system transformation, and the quality of practical, seminar, and laboratory classes has to be improved. Teachers have to be provided with the modern statutory and regulatory materials, information, and project technologies for resolving the contemporary tasks of education development. Similarly, the variability of qualification enhancement content and forms depending on the specific features and individual educational needs of the trainees has to be ensured, and the dynamics of change in the professional competence of the pedagogical staff has to be monitored and analyzed. Finally, the innovation processes at education organizations of the Republic of Tatarstan have to be rendered with the scientific and methodological support.

In the 2013–2020 “roadmap” of KFU, the third stage (mid-2016–2017) sees the new aggregated organizational development drivers – strategic academic units (SAU) (2015), including the “Quadrature of transformation of pedagogical education – 4T” – being created and developed on the basis of the formed priorities by involving all structural units into the transformations and by enhancing the educational constituent. The SAU broadcasting platforms have been created, including the university’s own general education structures for gifted children, the QE center for teachers (training annually over 7000 pedagogues), and the educational research park equipped with model classrooms – teachers’ creative workshops for a number of school subject areas. In its turn, the university is a platform for transferring the best practices of the Russian Academy of Education. The objective of the research is building the QE using the case of geography teachers while taking into account the influence of transformation of the education itself, the pedagogical education, a teacher as a subject of professional activity, and a teacher from the viewpoint of a QE participant. Being a member of the American Association for Higher Education Accreditation, American Educational Research Association, Association of University Administrators, and the Global University Network for Innovation (GUNI), in 2013, Kazan Federal University was one of the 15 winners in enhancing their competitiveness among the world’s leading scientific and educational centers. According to the results of audit of scientific and educational activity conducted by Quacquarelli Symonds Limited (Great Britain), the university was awarded three stars (QS-Stars). In order to enhance the results of educational activity and competitiveness among the world’s leading scientific and educational centers, KFU has developed an action plan: the educational programs of higher education and additional professional programs have to be created that are being developed and

implemented in partnership with the leading Russian and foreign higher education institutions; efficient mechanisms of cooperation with the cutting-edge universities, scientific centers, and companies that work out the competitive educational resources and programs have to be introduced by developing and launching the digital educational programs, massive open online courses, and international platforms, Edex, Coursera, etc.; and communications in the international academic environment have to be developed, which includes KFU holding the world-level conferences on priority directions with the leading h-index of Web of Science and Scopus top 50 scientists participating (Roadmap of KFU stage 3-2017).

2 Literature Review

The problem of the research is associated with bachelor's and master's degrees having been introduced in Russia and the traditional teacher-training system being recognized as showing little promise. However, the current community of teachers of the employable age – quite a numerous one – was educated in the previous higher education system. For such QE participants, the problems of the contemporary education are relevant. Under the introduction of two-stage structure of higher education in Russia, the bachelor's and the master's degrees, professional retraining of bachelors and training of masters, and the systemic and didactic complex also promote more widely adopting the competency-oriented educational standards and dealing with the problem of preprofessional identity (Pillen et al. 2013; Baum and Payea 2011).

According to the implementation of activity-based approach, QE for geography teachers is built up in the mode of professional difficulties brought close enough to the real teacher's professional activity. In the world, the formation of a new teacher model – a leader-teacher of the twenty-first century and a mobile, creative teacher who is capable of using state-of-the-art educational technologies – and the development of competitive education are becoming increasingly important (Sutherland and Markauskaite 2012).

The transformation of educational process during QE is associated with (a) trans-professional holistic focus, (b) the development of creative and leadership potential of teachers, (c) higher quality of educational services, and (d) globalization of education, inclusion of the Russian education into the world educational space which is built on the competency-based paradigm (Kasprzhak and Kalashnikov 2014; Ramos 2015) and internationalization agenda (Chigisheva 2015a, b).

The trans-professional holistic focus of QE for geography teachers is due to Russia's participating in the "Open educational system for the 21st century" UNESCO program. The task posed by the world community is that of forming an integral worldview in the young people. At the early third millennium, the world educational space to which Russia also belongs recognizes the principle of holism ("holo" means whole), "integrity", and "entirety" as the fundamental one.

Meanwhile, while keeping the subject techniques that are limited by narrow subject knowledge, the principle of holism implies turning to a meta-technique dealing with the universal idea of a comprehensive development of personality (Neuman 2011).

The starting point of the research is the statement of A.V. Khutorskoy about the processes expected from a creative teacher being the same as ones expected from a student – self-organization, creative self-fulfillment, professional self-development, a knowledge of heuristic methods, and reflection (Khutorskoy 1998).

The transformation of teachers from the standpoint of learners during QE is associated with the development of creative potential, formation of a uniform scientific worldview (integration), and the implementation of activity-based and competency-based approaches (Samigullina 2015).

The fundamental principle is that of consistency that allows building up the content of QE proceeding from the basic training of a teacher and the combination of theoretical knowledge and pedagogical competencies (Santoro and Kennedy 2016; Van Driel and Berry 2012).

Within the approach suggested, it becomes especially relevant to work out and create a pedagogical model of QE for geography teachers based on the systemic and didactic approach.

The contemporary educational situation has a demand for the model of not only a subject-specialist teacher who is up to the standard norms but also of one who is prepared to get away from the professional stereotypes. The role of a teacher changes from the one to follow the guidelines to the subject one to upgrade the learning process (Coenders and Terlouw 2015).

3 Research Methodological Framework

The process of QE for geography teachers that is regulated by system-building principles implies the creation of a systemic and didactic complex (SDC) including the modules of diagnosing the readiness for creative pedagogical activity, the professional difficulties in implementing the interdisciplinary relationships (IDR) and integration, and the readiness for implementing the competency-based approach.

The tasks of the research are as follows: (1) to identify the particularities of the QE process under reorganization of pedagogical education and quadrature of pedagogical education transformation; (2) to find out the readiness of geography teachers for creative pedagogical activity, the professional difficulties in implementation of the interdisciplinary relationships (IDR) and integration, and the readiness for implementing the competency-based approach; (3) to justify the systemic construction of the QE process upon the recognition of the universal values of holism, development of the creative and leadership potential, and the competency-based approach.

The research was conducted within QE of teachers of geography and both geography and biology at the Institute of the Development of Education of the

Republic of Tatarstan, KFU. The total of over 900 teachers of geography and of both geography and biology took part in the research from 2003 to 2015.

The use of systemic and didactic approach allows switching the QE process to the mode of diversification, offering a varied set of educational services to the training participants, and building an educational path that is most completely up to the needs of the society and the educational and professional needs of the very teachers.

The innovation nature of the project consists in not only looking for a flexible QE system for teachers of geography and both geography and biology, but it also allows adjusting the model of professional training of students (the future teachers), going away from narrow subject and subject-knowledge-based paradigm of pedagogical education; constructing the curriculum based on the creative, trans-professional holistic orientation; and adding a prognostic function to the pedagogical education.

The transformation of the QE system using the case of geography teachers and geography and biology ones included three stages: stage 1, stating the importance of the pedagogical creativity problem; stage 2, the use of meta-methodological vector in education and the implementation of holistic ideas; and stage 3, the implementation of competency-based approach as the result of development of the creative and leadership potential of geography teachers and of the formation of the united scientific worldview, going beyond the narrow-subject-oriented education.

By decision of the expert board at the international contest of pedagogical skills in using the ICT in professional education “Formula Profi-2016”, the online module “Diagnosing the teachers’ readiness for the implementation of competency-based approach” was awarded a winner diploma in the “ICT in training of education specialists” category (October 2016). The author’s technique “Technologies of creating and using the integrated tasks” presented within the research was awarded the diploma for the first place in the international educational contest of professional skills “Educational technologies as an object of pedagogical choice” in the “extended education” category (2017).

4 Results and Discussion

The modular structure for QE of geography teachers has been developed by the author. The first module includes diagnostics of the geography teachers’ readiness for creative pedagogical activity in order to render more importantly their creative and leadership potential, personal motivation, value references, and constructive behavior for forecasting the professional development.

The idea of transforming the very education is associated with the main objective of adult education worded by the UNESCO International Commission on Education for the Twenty-First Century – to teach people to acquire knowledge independently.

The transformation of pedagogical education is built upon an understanding of dialectical unity of the standard and the creativity in teacher’s work, as well as upon the formation of a teacher in the role of subject leader who upgrades the learning process.

The transformation of a teacher as a creative subject of professional activity predetermines the teacher to fit in the role of an active participant of the course training. It is not the information translation function but the developing one, i.e., formation of readiness for self-development in teachers, that acts as the priority function of the QE process. For this purpose, the method of fusion of classes according to the thematic principle (the first class is the information and problem-setting one, while the second one is practical), as well as cooperative learning, business games (the imitation of teachers' professional activity), by the means of playing techniques (so-called "mnemo-challenge" or "brainstorm"), the analysis of real author programs of teachers, self-diagnostics (the question "Who am I?"), problem method of learning, and situation analysis were applied.

The second module involves identification of professional difficulties of geography teachers in implementing the IDR and integration, as well as construction of the real field of solving the professional problems.

The idea of transformation of education is generally associated with Russia's participation in the "Open educational system for the 21st century" UNESCO program. The world community poses a number of strategic tasks for education, in particular the formation of an integral worldview, dialectic interrelation of the natural science, and the humanitarian understanding of various phenomena in the young people. The modern spheres of activity are subject to trans-professionalism and border nature of knowledge against the ongoing change of fundamental scientific knowledge.

The transformation of pedagogical education system is associated with the existence of two methodological vectors: the subject techniques and meta-methodological ones. Turning to the meta-technique that recognizes that every subject technique contains the elements of meta-methodology implies keeping the subject's best practices and regularities that are inherent in them.

The meta-technique is built upon the ideas and principles of general scientific (systemic character, evolutionism), methodological (the specific nature of scientific cognition, artistic reflection of the world, the stages of scientific cognition, methods and forms of scientific cognition, worldview), and philosophical character (the material unity of the world and interrelation of all phenomena).

The tasks of transformation of teachers from the viewpoint of the professional activity objects and the QE participants were built upon the understanding of psychological and pedagogical aspects of integration of study disciplines, the role of integration in organizing the competency-based and creative educational process, and the diagnostics and overcoming of professional difficulties of teachers in implementation of the IDR and integration.

The second module "Diagnostics of professional difficulties in teachers of geography and adjacent subjects as for the implementation of interdisciplinary relationships and integration" includes the diagnostic material (self-directed learning) for teachers who integrate the teaching of study disciplines according to the technique of Elaghina (2000), a tutorial for evaluating the training package in adjacent subjects, for building up the content of integrated lessons, for selecting the required

information from the adjacent subjects, for including the integrated tasks and independent creative works with interdisciplinary content into the lessons, etc.

Alongside with that, the principle of integration is determined by the total of professional and creative tasks in conditions of the transition from the subject principle of construction of the education content to creation of integrated study courses.

The third module “Diagnostics of readiness for implementation of the competency-based approach in teachers of geography and adjacent subjects” integrates the first two stages and includes identifying the extent of teachers’ readiness for implementing the competency-based approach. The objective of transforming the teachers as subjects of professional activity is the analysis of professional activity using the competency-based approach. In order to achieve the objective, the following tasks have to be fulfilled: (1) to improve the orientation and value, key and meta-subject, and constructive, organizational, and activity-related communicative competencies of teachers (Irwin and Hramiak 2010); (2) to form analytical and evaluation competencies in teachers using the personal experience and that of peers; (3) and to use theoretical knowledge in solving the practical problems, to form the abilities to integrate theoretical knowledge from subject-specific, psychological, pedagogical, culturological, and other units (Dawn and Heading 2010).

The content of the module is determined by involving the today’s teachers into the development of the complex of educational programs of various scales. This makes it essential to enrich the experience of the professional and creative activity of modern teachers with theoretical and methodological, project-related, constructive and methodological, professional activity-related, diagnostic, research, and prognostic abilities.

The character and content of classes reflect the process of knowledge renewal, the formation of a capacity for reflexive self-organization under problem situations, alternatives (selecting the content, forms and performance terms), pedagogical and subject integration, and self-development.

The activity and role of a teacher turn out to be a new one as well: the teacher now acts as a full-fledged subject of the educational process who participates in solving the learning and professional tasks as well as the very professional and creative tasks and receives the required assistance from an andragogy specialist.

Under these conditions, (a) the professional and personal collision, problem, (b) a need of personal self-development, (c) and gaming simulation of the social and pedagogical space of personal self-adjustment (roles, conflicts, relationships with referents of another experience, and so on) are singled out.

The module has the following structure: tutorials on goal setting and geography lesson design with the competency-based approach, creating an elective course, spatial design of lessons using the ecological path, solving the level complex integrated tasks, and designing a conventional and a graphic variant of the lesson with the use of the competency-based approach in the course of geography (Skvortsova 2009).

In the idea of transformation of the educational process, the teacher’s and students’ roles have been implemented with the case of the tutorial “Goal setting

Table 1 Designing a competency-based lesson

No.	Topic of the lesson	Grade	Goal of the lesson	Forms of teaching	Methods of teaching	Content of education	Content of the study material	Structure of the lesson	Interdisciplinary relationships
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Source: author

and designing a geography lesson with the use of the competency-based approach". The objective of the tutorial is to determine the extent of the teacher's readiness for designing a lesson using the following competency-based approaches: the priority of self-education; the emphasis on studies, employing the cognitive, moral, and voluntary motivation of students' activity; students' independent creative activity, activating the process of comprehending the studies; the reflexive standpoint of students; and the formation of methods of mental actions, general academic abilities, and skills (see Table 1).

The implementation of the competency-based approach is closely associated with the teacher's reflexive and project-related competencies. They reflect the teacher's orientation to creativity, aspiration, and ability to analyze one's experience, pursuit of and capacity for comprehending the ways of one's personal development, acquisition and application of the new pedagogical technologies, as well as ability to outline the problem and use the obtained knowledge in practice. The reflexive and project-related competencies for solving the professional problems are viewed with the case of the "Technique of teaching the geography of Russia" tutorial. Its tasks are to use the theoretical knowledge when solving practical problems; to form the abilities to integrate the theoretical knowledge from various psychological, pedagogical, culturological, etc. units; and to form the creative activity styles and distinctness of geography teachers. The tutorial on analyzing the elective courses is oriented to forming the teacher's theoretical and methodological, project-related, constructive and methodological, and analytical and evaluation competencies.

At the third compilation stage, the professional competencies acquired at the first and second stages (Fig. 1) are used.

At the final stage, the phenomenological concept of meta-technique is used. The meta-technique is constructed upon the ideas and principles of general scientific, methodological, and philosophical nature and has the formation of a united scientific worldview as its goal.

The tool for assessing the professional and creative abilities of teachers is a series of the author's complex integrated tasks (CIT) and the technique of goal setting and lesson design using the competency-based approach (Skvortsova 2009).

Solving the CITs depends on the productive activity – transferring the obtained knowledge and methods of activity into a new situation – of the so-called knowledge transformation.

CITs are a kind of structures that allow finding out the general regularities, mutually supplementing and using various linguistic means as evidence (the semantic, verbal, graphic ones), as well as unifying various notions and including the obtained knowledge into new associations.

During the QE for teachers of geography and adjacent subjects, the systemic and didactic complex (SDC) has been used (see Fig. 2).

Fig. 1 QE modules for teachers of geography and related subjects

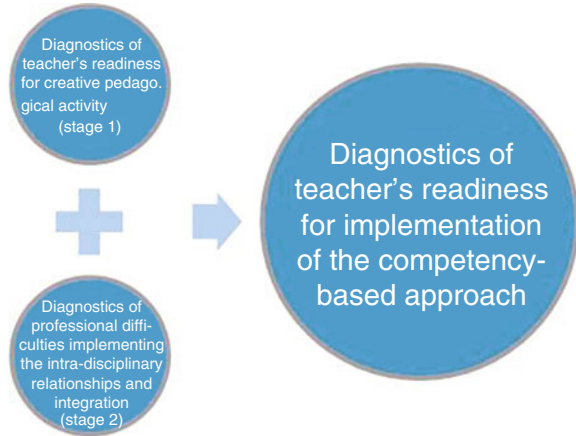
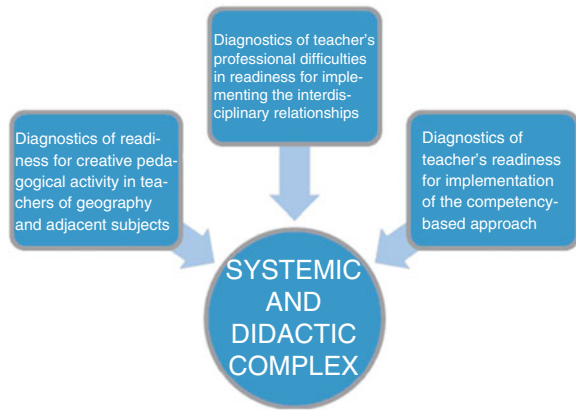


Fig. 2 Systemic and didactic complex for qualification enhancement of teachers of geography and related subjects



5 Conclusion

The use of a systemic and didactic complex within QE at Kazan Federal University promotes: (a) flexible construction of the QE system for teachers of geography and related subjects; (b) elimination of narrow subject and subject-knowledge-based paradigm of pedagogical education; and (c) construction of the curriculum based on the creative, trans-professional holistic orientation; alongside with this, (d) the integrative, modular, and problem-oriented character of the SDC allows adjusting the model of professional training of bachelors and masters (future geography teachers) and adding a prognostic function to the higher pedagogical education. The research conducted proves that SDC enriches the teachers' QE process technologically and that the modular construction principle allows using it in training (professional retraining) of bachelors and masters. The modular and variable character of the SDC focuses on resolution of the problem of providing a new QE

organization format. The SDC ensures quite high efficiency of QE and helps bringing the subject-oriented teachers' QE organization close to the formation of a holistic worldview, encouraging the participants to use both theoretical and practical knowledge in at least three fields: subject, meta-subject, and pedagogical ones. The association between the links of definition chain "creativity–task–competencies" has been determined, with a shared essence, problem solving, underlying them.

In the future, the contemporary means and reflexive technologies of learning may be worked out and introduced, and moving away from preponderance of the information and subject environment toward the creation of developing conditions for teaching and studying may be accomplished using the mono-disciplinary (intra-subject) and interdisciplinary integration of knowledge.

Provided that its consistency is maintained, the QE, built in the way suggested above, enjoys the demand and assists the creation of pedagogically justified system of rendering the creative potential that is relevant and developing it via the interrelated stages of course training and time spans between the courses. It helps taking into account every teacher's educational needs and making up an emotional and creative atmosphere aimed at activating the reflection and independent work. It also encourages the focused pedagogical work on forming the creative abilities and leadership skills based on enhancing the focus on problems and dialogical nature of the process of education. It contributes to achieving the consistency of technological and value attitudes of course events as well as that of organizing the teachers' education content in blocks and modules. It facilitates the value orientation to the humanistic pedagogy of cooperation in order to render more efficient aid in selecting the optimum teaching methods and techniques, transforming and developing the individual creative experience. Finally, the QE, laid out as described above, brings along the integration which is a consequence of the unity of the world, a fundamental principle of existence of the world, and a consequence of existence of inter-scientific links.

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Teacher Leadership in Early Childhood Education (Pilot Study in Ekaterinburg, Russia)



Natalya Antonova, Anatoly Merenkov, and Ekaterina Purgina

Abstract The article discusses collaborative leadership in early childhood education, which is aimed at fostering development of children and facilitating their learning of skills in a way that is sensitive to their personal aptitudes. Educational institutions must ensure continuous and comprehensive learning within which children will be brought up in moral, social, and cultural values. Educational organizations where instructors' teamwork is supported demonstrate improved efficiency and better conditions for professional and personal development of their staff. We conducted interviews with teachers of municipal institutions of early childhood education ($n = 30$) in Ekaterinburg, Russia. The majority of interviewed teachers expressed their unwillingness to assume leadership roles. According to the interviewees, a leader in the educational environment should possess such qualities as organizational abilities, social skills, confidence, proactivity, energy, and creativity. Our analysis has revealed certain structural tensions that impede the realization of teachers' leadership potential: on the one hand, the teachers recognize the importance of professional leadership, but on the other hand, they lack means and mechanisms for development of their own leadership competences. Another contradiction exists between the new requirements for children's development formulated in the Russian federal standard and the reproduction of traditional patterns of educational relations that prevail in most educational institutions.

1 Introduction

Individual initiative, proactivity, and self-organization have become particularly important in the public life of Russia due to the political, economic, and cultural transformations the country has been experiencing. Social development tends to be contradictory and sometimes unpredictable, which creates a need for leaders capable

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of making independent decisions. Leadership thus becomes an efficient tool for development of all spheres of public life and social progress, including the system of education. In Russia, early childhood education is considered to be an integral part of general education and is now being reformed, which involves revision of professional standards. Nowadays administration of educational institutions should not only possess organizational skills but also be able to generate innovative ideas and approaches and encourage teachers to develop personally and professionally and realize their potential. Such leadership will enhance modernization in the educational sphere and raise the status of the pedagogical community in the society.

According to the modern approach to children's education and upbringing, the main function of early childhood education is socialization (Brayfield and Korintus 2011; Gernhardt et al. 2014). In Russia, the Federal State Educational Standard of Early Childhood Education was developed and adopted in 2013 (RF Federal State Early Childhood Education Standard 2013). It defined the following key objectives of early childhood education: enhancing the status of early childhood education; providing all children with equal access to high-quality education by introducing unified standards of preschool curriculum, its structure, and the expected learning outcomes; and maintaining the country's uniform educational space, including the level of early childhood education.

Administration and teachers of an institution of early childhood education are expected to know the key mechanisms for ensuring health, safety, and well-being of children and to provide them with equal opportunities for development. Pedagogical community should work together with parents to introduce a child to a certain system of values (Merenkov 2013), create favorable conditions for children's development taking into consideration their age-related and individual needs and aptitudes, and develop their capabilities and creative potential. Childhood is the crucial period of socialization: the basic social skills children acquire in this period will be fundamental for their individual well-being in further life (Antonova 2014).

Efficient implementation of new educational standards in early childhood education depends on the ability of administration to lead the process of change and to help educators reveal and realize their creative potential. This is one of the main trends in educational systems all over the world, including the preschool level (Ord et al. 2013).

2 Literature Review

Theories of management in education have achieved considerable advances in the last decades. In contrast to the concept of principalship, which was popular in the mid-twentieth century, the concept of leadership is now gaining more and more popularity. The concept of principalship is based on the industrial model of school, which means that administration is responsible for the school's operation and performance. According to the concept of leadership, however, the management authority is distributed among different actors performing diverse functions and

roles inside as well as outside the educational organization. This distinction is associated with changes in the approaches to organizational culture. Development of information technologies and network society and the revolution in social studies created a new understanding of leadership, which entailed new values and expectations (Fenech 2013). Taking into consideration the rapidly changing social context, the new model of leadership expands rights and opportunities and promotes trust and cooperation, which forms a special culture (Aubrey et al. 2013). The new approach to leadership is also applied in the system of early childhood education (Ebbeck and Waniganayake 2003).

Modern studies demonstrate that successful management of an educational institution creates favorable conditions for efficient education and socialization (Fullan 2004; Heck et al. 1990; Leithwood and Jantzi 1999; Mulford and Silins 2009; Robinson et al. 2008; Wiley 2001). Collaborative leadership relies on the strategy aimed at improving the performance of an educational institution through joint efforts of teachers, administration, and parents.

We can point out three types of human resources in an organization of early childhood education: teachers' individual potential, potential of a team of teachers, and potential of the whole pedagogical community. Teamwork maximizes potential of human resources, enhances the performance of the institution, and provides continuous development of a teacher (personal and professional growth). Therefore, educational institutions tend to prioritize strategies aimed at creating teams for solving specific issues and for realizing projects (Heikka et al. 2012). A group or a team realizing a project does not have to have only one permanent leader. Leadership can be distributed among different members of an organization (Kivunja 2015; Spillane et al. 2001) at different stages in accordance with how relevant their competences are to address the current situation. Leaders determine trends of development of their educational institutions and play key roles in creating a nurturing environment that encourages interaction between families and staff, who then encourage children to flourish (Carr et al. 2009).

Leader is a symbol of unity and a role model for the group that he or she is leading. Thus, a leader in an educational environment should be able to organize efficient teamwork and set goals that would be clear to all participants of the educational process. Each educator seeks to become an efficient agent of transformation (Fullan 2000). Rodd (2013) believes that an essential characteristic of a successful leader is to be able to create a community. Such communities may serve as a driving force for the development of the whole system of early childhood education. A special role in this process is played by mentorship (Wong and Waniganayake 2013), which is virtually unknown in the modern Russian system of early childhood education. At the same time, it is necessary to develop special technologies to evaluate the performance of leaders and teams.

In general, the system of early childhood education should acknowledge the important role of leadership, overcome its dependence on specific leader figures, and instead place an emphasis on the development of various types of leaders (Goffin and Washington 2007) addressing different tasks. The implementation of

the new approach to leadership requires dialogue and planning in the context of the general strategy of development of early childhood education (Waniganayke 2014).

3 Materials and Methods

The main aim of teachers within the system of early school education is to plan and organize children's daily activities and to ensure their individual development by contributing to children's health, learning, and well-being. Educators are to provide parents with practical guidance in matters of children's upbringing. According to the existing laws and regulations, teachers can participate in the life of their professional community, make proposals for improvement of the educational process, and share their pedagogical experience at meetings, conferences, and other similar events.

In our research we analyzed preschool teachers' ideas about what constitutes a professional leader. Therefore, we addressed the following research objectives: firstly, bring to light personal and professional characteristics of a leader in early childhood education; secondly, find out how teachers self-assess their leadership status; and, finally, identify characteristics that are essential for a principal of an early education institution.

Our survey was conducted in 2015 in Ekaterinburg (Russia). The main research method was standardized interview. We have developed an interview guide consisting of 15 questions and interviewed teachers from 4 typical organizations that had the status of a municipal institution of early childhood education. We interviewed 30 teachers, all of them women. In each institution, we interviewed seven to eight respondents. Ten teachers had 5–10 years of teaching experience; 15 teachers, over 10 years; and 5 teachers, less than 5 years. As for teachers' qualification, nine of them held the highest qualification category; 21, the first category; 12 had a higher pedagogical education; and 18, vocational pedagogical education. We conducted our interviews, which lasted 15–20 min, at the end of the teachers' shift (working day).

4 Results and Discussion

We asked teachers to identify personal and professional qualities necessary for a person to occupy a leading position in the system of early childhood education. Fifty-three percent of respondents chose organizational abilities as crucial for leadership; 26%, social skills; 23%, confidence; 17%, proactivity and energy; and 13%, creativity. Such qualities as tact, respect, diligence, and ability to generate new ideas and original approaches to work were not popular among the teachers. Our research has shown that they prioritize the qualities of a dominant leader, who is more interested in individual career success rather than in the development of the whole pedagogical community and educational organization.

A special emphasis should be placed on creativity at work. Teachers are aware of the important role that creativity plays in their profession, but they find it hard to describe how it can be applied in practice. It should be noted that teachers generally demonstrated orientation toward independence and, possibly, leadership. Teachers seem to focus more on the achievement of their own rather than on helping others reveal and realize their potential. We believe that this pedagogical community is not ready to work as a team in order to realize the principles and objectives described in the new educational standard.

We think that willingness to apply a creative approach to work affects teachers' level of satisfaction with their professional choice. Every third respondent considers their profession to be one of the best, while every fifth thinks that their profession is neither better nor worse than many others. None of the respondents expressed negative attitude toward their professional choice. Nevertheless, respondents admitted having problems with realizing their needs and professional interests, which can be the cause of their dissatisfaction and disappointment with their choice and prevent efficient teamwork and development of their leadership potential.

Development of leadership potential of a modern teacher is based on the humanistic approach in education. A modern educator should be able to reflect upon the key issues and challenges in learning and pedagogy and the shared cultural legacy accumulated in these spheres over time as well as upon the questions of human nature and patterns of personal development. These are the questions that underlie a teacher's self-determination, personal philosophy, and leadership abilities and that ensure his or her personal and professional growth.

Our research findings have shown that teachers do not assess themselves highly in terms of their leadership skills: 57% of respondents said that they were willing to follow the leader, pointing out that a leader should inspire respect based on their professional excellence as well as personal qualities. The teachers are sure that administration of an educational institution should create conditions to encourage the staff to reveal and realize their leadership potential. At the same time, the principal should have a range of leadership qualities: firstly, strategic planning skills, which enable the leader to create a new attractive image of the educational institution and present it to their followers; secondly, creativity, which helps the leader to find the optimal solution in any situation and implies taking a calculated risk; thirdly, charisma, which means that the leader should be well aware of their personal aims, be ambitious, open, and energetic; fourthly, determination and acumen, which enables the leader to foresee, plan, and manage events; and, finally, responsibility, which implies that the leader should take responsibility for their decisions and choices.

In general, the key characteristics of principals as well as of teacher leaders include competences that enable them to realize positive changes and inspire the pedagogical community to develop socialization space of a modern educational institution.

5 Conclusion

Our study has brought to light certain contradictions in the realization of leadership potential in the sphere of early childhood education. Firstly, even though teachers are aware of the need for professional leadership, they lack information about the tools and mechanisms for development of leadership potential. Secondly, there is a contradiction between the new requirements to children's development, including those formulated in the Federal State Educational Standard of Early Childhood Education, and the reproduction of traditional models of educational relationships.

There is a growing social need for leaders, which makes leadership training particularly important, not only for administration of educational institutions but also for teachers. Modern society needs a new generation of leaders in early childhood education, which can be achieved by developing and implementing special projects and programs (Campbell-Evans et al. 2014). It is particularly important to include such disciplines and courses in the system of advanced teacher training. It would also be effective to organize pedagogical panel discussions, which would stimulate teachers to present and defend their positions (Carroll-Lind et al. 2016). Furthermore, pedagogical universities should introduce integrative courses (disciplines) aimed at development of leadership potential of future teachers.

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Leadership and Students: Is There a Future for the Knowledge Economy in Russia?



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Abstract In December 2016, there were interviewed students of the Bachelor's and Master's programs of the Institute of World Economy and Business (IWEB) of RUDN University. The goal was to study the generation Y, its worldview, the life values and priorities, the stereotypes, and various behavioral models for designing the system of internal and external communications of the organization. One of the research tasks was the identification of social models of this target audience, its ideas about future activities in the field of communications and its place in the profession, and the degree of readiness of the respondents to the new economic realities. The students were asked to answer anonymously the questions of the questionnaire, which included several content modules, including the aspects of leadership and creativity. Following the results of the study, we not only received general conceptual results that give a detailed description of the study of the target audience in a wide range of parameters but also formulated recommendations for the optimization of educational process, the improvement of educational programs, and the development of a corporate communications strategy of the organization to improve the reputation among the consumers of educational products.

1 Introduction

The global economic crisis of 2008 has put into question not only the future of individual companies or industries but also larger and more complex issues of economic development of individual states and the creation of new, more efficient models of the global economy (Igumnov 2016). Today this is perhaps the most urgent problem for Russia. The USA and EU sanctions policy has been applied since 2014, and as a consequence the installation for import substitution only strengthened

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the challenges faced by the country. At the same time, it is not a secret for anybody that the solution of the whole complex of emerging issues lies in the construction of a new type of economy – a knowledge economy where the source of well-being is not natural resources or goods but the people and knowledge (Howkins 2001; Knyazev 2006; Chigisheva 2011).

The knowledge economy is considered as the highest stage in the development of the postindustrial economy. Its development depends on improving the quality of human capital and quality of life, on the production of high-technology products, and on the innovations and the high-quality services. The leaders in this area are mainly the USA and partly EU countries, where the human development index is very high according to the UN (Human Development Report 2015).

It is obvious that Russia will have to solve a very difficult task in the near future – to move in the economic development from the reconstruction of industrial institutions that fairly degraded during the breakup of the Soviet Union to the formation of a new type of economy based on the realization of the value of talent, intellect, and creativity, seeking to discover new opportunities and horizons, and ready to be responsible for such leadership (Barbashin et al. 2014).

However, how ready are the students of Russian universities to these challenges and how strong are they to become of the source of these changes? Can they act as owners of leadership in their future professional activities in the field of advertising and public relations? We tried to find answers on these and other issues through a study conducted in December 2016 at the Institute of World Economy and Business of the RUDN University.

2 Literature Review

First talk about the approaching change of economic structure began in the middle of twentieth century. In 1959 D. Bell (1999) noted in characteristic of the postindustrial society that “the decisions in the areas of production will be initiated and determined by other social forces. . . Not only the best talents, but the whole complex of prestige and status in the postindustrial economy are generated by intellectual and scientific communities” (Bell 1999: 344).

Two decades later Toffler (2010) proposed the theory of a “third wave” of types of society predicting the events and institutions of the future that is the result of an intellectual revolution. At the end of the 1990s, Kastels (2000) identified signs of the “information society,” and in 2002 Florida (2005) announced a creative economy and a creative class in the work “The Rise of the Creative Class. And How It’s Transforming Work, Leisure and Everyday Life,” which he considers the core of the American society that determined the economic success of the country. He believes that creativity has become the main driving force behind this process; the knowledge and the information are its tools and working material. According to the scientist’s opinion, the core of a new (creative) class is people of creative professions:

scientists, engineers, university professors, writers, artists, designers, and other people “whose opinions shape public opinion” (Florida 2005: 104–105).

At the same time, Kotler et al. (2010) noted that often creative people are innovators, who produce and realize new ideas and technologies. They become leaders because they serve as centers and nodes connecting consumers to each other. Their opinions and lifestyles influence on the society and shape the position of other people. In this regard it seems logical that the issues of leadership become one of the key in the creative economy.

The transition toward the knowledge economy and creative economy is changing as a management model of organizations and the quality of the internal environment and the nature of the activities of their employees (Amabile and Mukti 2008; Brem et al. 2017; Isaksen and Ekvall 2010; Lorenz and Moutchnik 2016). At the same time, the researchers don't yet have an understanding of what types of leadership will be in demand in the twenty-first century, how the leadership potential of the creative class will unlock in the new organizational models, etc. (Gumusluoglu and Ilsev 2009; Moss and Ritossa 2007; Mueller et al. 2011; Zhang and Bartol 2010).

However it is obvious that communicators are among the creative class which also includes specialists in advertising and public relations, and therefore it is natural to extrapolate to them the characteristics and functions of the creative class, as well as a set of emerging questions about leadership in the era of knowledge and creativity (Glagoleva et al. 2017).

3 Methodology

3.1 Selection of Respondents

In December 2016, 170 students of the direction “Advertising and Public Relations” of the second, third and fourth years of the bachelor's degree and the second year of the master's degree of the IWEB RUDN University (Russia) were interviewed. The absence of the first year bachelor's and master's student among the respondents due to the fact that they don't yet have sufficient information and didn't form a stable view of the chosen profession and the educational program at the beginning of their studies in the university.

3.2 Structure of the Questionnaire

They were asked to answer anonymously to the questions of the questionnaire, which consisted several content modules, including the aspects of leadership and creativity. Moreover the questionnaire contained traditional blocks: the introduction explaining the goals and objectives of the research and also including the instructions for completing the questionnaire, the part with the information of the formal

demographic characteristics of the respondent, and the part with an expression of gratitude for the attention and time spent. The questions of the survey were of different types: open, closed, and semi-closed.

4 Results and Discussion

The results after processing the information of the questionnaire of the bachelors and masters students of the IWEB RUDN University studying in the direction “Advertising and Public Relations” allowed to determine the place of creativity of the future profession in the students’ ideas and their willingness to assume the functions of a leader in professional or social life.

The formalization of the obtained answers gave the following picture:

- A. The question “What in your opinion most fairly characterizes the activities in the field of advertising and PR?”

This semi-closed question suggested the choice of 3 of the 12 variants of the answer. The variant “Creativity” was chosen by 64.7% of the total number of respondents (110 students). This answer was the second most popular among the proposed variants. However it lost to the option, which indirectly characterizes leadership and creativity: “interesting projects” was the answer of 71.8% of the total number of the respondents (122 students). Similarly in our opinion, it is possible to determine the significance of the answer, which became the third in the number of votes received: “the possibility of self-realization” gave this answer 47.1% of the total number of the respondents (80 students).

- B. The question “In your opinion what is the ideal specialist in advertising and public relations?”

The group of the answers to this open question describing the “level of development, education, intellect” of the communicator was in the first place in terms of the number of characteristics. These qualities were noted by 63 respondents (37,1% of the total respondents). The second was the group “creativity and imagination” with 52 responses (30,6% of the total respondents); the third “communication skills” identified 40 respondents (23,5% of the total respondents).

- C. The question “What position do you consider as the peak of your career?”

This semi-closed question supposed the choice of one of the six variants of the answer. Forty-eight percent of respondents (81 students) chose the option “business owner,” 28.2% (48 students) chose the variant “qualified specialist is a real professional,” “general director of the communication agency” was chosen by 14.1% (24 students), 4% of the respondents (6 students) noted “vice president of communications” and also 4% marked “winner of professional awards” (6 students), and “art director, creative director” was chosen by 1% (1 student). Among the single

answers were options from “Minister of media and mass communications” to “staying by yourself.”

D. The question “What will be the main thing for you to make a decision to go to work in an organization?”

The variant “creative activity” was chosen by 34.7% of the total number of respondents (59 students). It lost to the answers “possibility of development” (this option was chosen by 99 students; this is 58.2% of the total number of the respondents), “salary” (this option was chosen by 89 students; this is 52.4% of the total number of the respondents), and “sphere of activity” (this option was chosen by 85 students; this is 50% of the total number of the respondents).

E. The question “Do you have a job?”

47.6% of respondents (81 students) answered positively to this closed question, and 49.4% of respondents (84 students) gave negative answers. The others (2.9% of the total number of the respondents) found it difficult to answer.

F. The question “Who pays for your education?”

Only eight people (4.7% of the total number of the respondents) among the respondents chose the option “myself.” Another three respondents (1.8% of the total number of the respondents) pay the education together with the parents. The education of the rest respondents (93.5% of the total number of the respondents) is paid by family, or by the state, or by third-party organizations.

G. The question “Do you participate in some social projects as a volunteer?”

31.8% of the respondents (54 students) answered positively, and 66.5% gave negative answers (113 students). The others (1.7% of the total number of the respondents) were undecided.

H. The question “Are you a member of the nonprofit organization?”

1.8% of respondents (3 students) answered positively to this closed question, and 62.9% of respondents (107 students) gave negative answers. The others (35.3% of the total number of the respondents) found it difficult to answer.

I. The question “Are you a member of a political party?”

1.2% of the respondents (2 students) answered positively, and 97% gave negative answers (165 students). The others (1.8% of the total number of the respondents) were undecided.

J. The question “Do you vote in elections?”

Only one of every three respondents (34.1% of the total number of the respondents) participates in the elections to the public authorities; other respondents (63.5% of the total number of the respondents) don't use their constitutional right to elect and be elected. Four people found it difficult to answer this question.

5 Conclusion

Summing up the research, we can draw a series of conclusions that are interrelated and constitute a single complex. The bachelors and masters students participating in the questionnaire of the IWEB RUDN University are clearly aware of the creative nature of their future activities and also highlight knowledge and creativity as key professional competencies. At the same time, they demonstrate a high level of career ambitions.

However at the time of the questioning, the unemployed and even majority of working students didn't pay their own education. Besides when the ideal ideas landed to the real situation, it was found that the creative nature of the work is much less important for respondents in comparison with salary when they are seeking a job.

Perhaps this is associated with low social as volunteer and political activity of the respondents. If the students of the Institute of World Economy and Business of the RUDN University are ready to "storm" the highest career peaks in the professional sphere, then they show a certain passivity outside the professional and possibly their private life. In this regard, it seems to us that the issue of leadership in the creation of the knowledge economy in Russia is still open.

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Modern Trends Toward Shaping the Image of Educational Leader



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Abstract The intention of this paper is to raise and study some questions connected with shaping leadership skills in graduate teachers. The results of the survey showed how well the teacher graduates acquired both hard and soft skills that will enable them to become educational leaders and which they are called upon to form in schoolchildren. The authors looked into the factors which contribute to the establishment and development of a new type of educational leaders that are able to make creative, theoretical, and practical contributions in the innovative processes in education. The study reveals that graduates have a fairly clear idea of the essence of leadership. They understand leadership not only as a process of formal management of social communities but also as a high level of professionalism. The image of a teacher-leader the students shaped has the potential of a researcher and a knowledge translator. The majority of students believe that a modern teacher should implement a learner-centered approach, helping them to deal with the challenges and developing their personalities. On the whole, students are aware of the current trends in education and its main hardships. Professional qualities and skills together with the personal qualities are the constituents of a leader in education.

1 Introduction

Political and socioeconomic challenges facing modern society raise the issue of the formation of an active initiative personality able to make responsible decisions and act creatively in fluctuating environments. The leadership qualities of a teacher have changed and expanded dramatically in the last decade. Responsibilities of educational leaders now exceed what individual administrators in schools can be expected to carry out alone. State and federal requirements to increase student learning

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necessitate a shift in leadership, from managing orderly environments in which teachers work autonomously in their classrooms to one in which administrators, teachers, and others share leadership roles and responsibilities for student learning (Berg et al. 2013).

The leadership mechanism is of a particular importance for an education sector. Awareness of the inadequate effectiveness of traditional leadership style of top-down management is transiting now into a collaborative approach or distributed leadership.

The Federal State Education Standard of areas of teacher training education provides teachers with plenty of opportunities to design such curricula which will meet the needs of nowadays students. The time is ripe now to entrust teachers with the realization of their leadership potential. To foster such leaders, Sir Michael Barber (2012) accentuates the following prerequisites: universal standards of an effective educational system, teachers who should be educated and motivated, and clear and transparent organizational system.

Transition from the old pedagogy – the pedagogy of knowledge – to a new model, understanding pedagogy, brought about the necessity to study educational leadership in depth. Lack of knowledge and skills to show leadership in their professional environment on a par with the demand from the society to assist young people to good conduct sets new milestones for educationalists.

The purpose of this study is to determine the leadership potential of the graduates of a pedagogical university on the basis of an empirical study, to analyze the leadership components, and to compare them with the requirements for future teachers recorded in the Federal State Education Standard and in the Teachers' Professional standards.

2 Literature Review

Literature on leadership in education can be roughly divided into three major groups:

1. Studies which embrace aspects of the organization and management of schools and colleges.
2. Research of different approaches to understanding the notions “leadership, leader,” clarifying the traits of a leader.
3. The empirical study of implementing different practices to enhance students' and teachers' motivation to develop leadership skills. Each of these approaches can be addressed separately.

However, the objective of this section of our study is not to provide the reader with an exhaustive review on leadership in education but rather examine Russian and English articles published after January 2000 that embrace three key concepts: leadership, teacher education, and university/higher education. The use of prior literature relevant to our research is assumed to be inconsequential as expectations about the performance of educational leaders have changed and expanded

considerably in the last decade, extending far beyond the traditional definitions of administrative roles.

In 2008 Organization for Economic Cooperation and Development conducted a major international research on improving school leadership. The Russian Federation was not part of the study on this issue. Still in 2002, Lesina (2002) carried out a sociological analysis of leadership in education in Russia. She wrote then that in the society built on democratic principles, leadership qualities on a par with competition in the market economy act as a powerful tool of social development and progress. On the other hand, this approach doesn't seem to be adequate as it doesn't meet up the expectations of modern, globally oriented young generation. The formula for success in education devised by Sir Michael Barber's team in 2012 looks the following: knowledge plus thinking plus leadership underpinned by ethics (Barber 2012). The focus is shifting now: rephrasing an old adage, we may say that leadership without ethics is a runaway horse. If Sir Michael Barber's formula is implemented only partially and if knowledge is supplemented by thinking and leadership but not underpinned by ethics, we shall arrive nowhere.

Moreover, the center of global leadership in education is shifting now from the West to the East due to the economic growth of the Pacific region which in its turn is stimulated by the rise of innovation and research (Barber 2012). In education those on both sides, teachers and students, should be encouraged to innovate and to be proactive in the classroom. Russian experts on education, Danyluk (2010) and Kubarkova (2012), believe that teacher-leaders should not only have an increased individual development level and organizational skills but also be able to generate new ideas and approaches, create new teaching techniques, help accomplish the students' inner potential, and initiate their personalities' development.

HSE University's Institute of Education (IOE), a leading Russian center for multidisciplinary educational research, training, advisory, and professional networking, is currently conducting a project "7 System Leadership Study." They explore leadership development and leadership practice in differentially performing education systems in countries such as Malaysia, Indonesia, Singapore, Hong Kong, Australia, England, and Russia.

In this connection, developing leadership skills in future teachers while they study at universities must be an integral part of their curriculum. As yet, the articles correlated to the study of leader value presence in graduates of Russian higher educational institutions show that leadership competences are subpar (Tyutyukov et al. 2015; Avvo and Zair-Bek 2013; Lukash and Timchenko 2015; Shchetinina and Zinchenko 2016; Cansoy 2017; Ricketts and Rudd 2002; Elmuti et al. 2005; Kotnour et al. 2014).

However, until now, in the works of foreign researchers, we see that many leadership programs do not work as well, as there are not enough seminars and trainings for teachers on leadership (Parkay et al. 2014).

In the United States, one of the professional responsibilities of a teacher stipulated by Model Core Teaching Standard is leadership and collaboration. In British Teachers' Standards, we don't come across the word "leadership," but in part one of the standards, we read that a teacher "must set high expectations which inspire,

motivate and challenge pupils.” What we see in the Russian Teachers’ Standards is that a teacher must effectively manage classes, in order to involve students in the process of education and upbringing, motivating their educational and cognitive activities, to set up educational goals that promote the development of students, regardless of their origin, abilities, and character, and constantly seek pedagogical ways to achieve them. Consequently, one way or another, teachers are expected to be leaders.

The multiplicity of theories of leadership in social psychology carried out in Russia and abroad is explained by the fact that the researchers concentrated on individual manifestations of leadership (Bernabé and Dupont 2001; Gendron 2012; Malyuga 2016; Yashina et al. 2017). The analysis of various approaches to the problem of leadership has allowed us to identify a number of features that characterize leadership as a sociocultural phenomenon. Leadership is:

- Ability to plan, monitor, and evaluate
- Ability to implement various resources to achieve a planned result, involving the followers into plan execution
- Ability to identify the need for changes, assisting the colleagues in mastering new behavioral patterns
- Ability to encourage peers to redefine their goals, to achieve personal fulfillment
- Ability to create optimal conditions for social interaction

Summarizing the abovementioned theories, we note that there can be different work situations, requiring different personal and professional qualities of potential leaders. The nature and specificity of educational leadership can be considered in the context of the prevailing ideas about the essence of education and upbringing, the place of the educator, and student in the educational process.

In the understanding of leadership in education, two approaches can be distinguished. (1) The leader acts as an educator, who has his own vision of the pedagogical process, his technology, and the style of giving instructions, which determine the content and forms of education, the strategy, and style of behavior in the teaching team. (2) The leader acts as the head of the educational institution, the field of his action – the education system – and its structure. In modern pedagogy there are two main styles of teaching. The first is an authoritarian type – the leader who determines the goal and the ways to achieve it. Authoritarianism is not only a characteristic of the style of leadership that has become widespread in pedagogical practice, it is also a way of thinking, style of interaction with other people; the subordinates are considered as a means of implementing curricula and plans. The second type of leadership is the leader-facilitator, a partner who can reveal the potential of his followers. The students turn into active participants of an educational process; they are no longer empty containers fed with knowledge.

Most university teachers do not have analytical skills and leadership skills. To educate students to be successful in this rapidly changing world, leaders-facilitators are in great demand. The demand for educational leaders of this type is confirmed by the results of a survey of students at a pedagogical university, which clearly manifest students’ desire for adapting curricula to their interests and initiatives. Adequate

perception of the specifics of educational leadership can be the basis for the formation of leadership qualities that are necessary in a certain professional sphere.

According to Professor Lesina (2002), it is important to study the leadership mechanism, the way it operates in order to increase the efficiency of work, and the development of educational institutions. We believe that it is necessary to analyze the degree of implementation of the leadership potential of future teachers and identify factors that contribute to the formation and development of modern educational leaders. The research carried out by the authors made it possible to reveal certain features of the leadership potential of students at a pedagogical university.

3 Methods

In this study future teachers are examined from two perspectives:

1. The way they understand the image of the leader
2. The extent of their leadership potential and the ability to implement it

To study the attitude toward educational leadership, the survey was conducted among graduates of future foreign language teachers (the survey was conducted among the senior and graduate students of the Faculty of Romance Germanic Languages of Moscow State Region University). Students of senior courses are likely to have already actualized their life plans; they are more aware of their professional interests; and they can evaluate the training received at the university and know what qualities leaders in education should possess. Therefore, these students can most accurately assess their leadership potential.

Initially, students were asked to answer the open question: “The leader in education is” The image of leadership in education reflects not only the ideal portrait of a leader but also their realistic perception of the phenomenon of educational leadership. The students defined the leader as “the one leading the way,” “the most respected member of the group,” “the one who knows how to organize the activities in the group,” “independent, proactive, energetic,” “able to achieve results,” etc.). It is interesting to note that there were practically no answers where the leader was defined as the one who pays attention to the needs and interests of the colleagues.

In order to know how the students perceive the term “leadership potential” and if they are capable of filling their leadership pipelines, they were asked the question: “What are the most important characteristics and skills for leaders in the field of education?” Leadership potential encompasses such components as abilities, aspiration, and engagement. The authors believe that the image of a leader in education can be drawn through professionally significant qualities and their hierarchy.

A list of qualities, from which it was necessary to choose the most significant for the successful work of the teacher, was given to the students. In the second questionnaire, future teachers were asked to assess their own leadership potential

and ability to implement it and note the degree of their professional qualifications as “sufficient” or “insufficient.”

The listed features of leadership correspond with the competencies stipulated in the Federal Standard of Higher Education. The identified aspects of leadership are reflected in the survey.

The indicators of efficient teaching displayed in the survey were grouped into a “professional” (pedagogical) block, which assumes the importance of the subject training, methodological skills, the ability to determine the strategy and tactics of teaching, and understanding the problems of the modern school, and a “leadership” block – qualities necessary for promoting a clear vision, taking initiative, analyzing and making program adjustments/improvements, building support with parents and community, building a team spirit, and providing support and encouragement for other teachers.

The results of the survey were estimated by the method: percentage of the number of respondents. Twenty-eight graduate teachers took part in the survey.

4 Results and Discussion

After analyzing the results of the self-assessment survey (Table 1), the authors concluded how well the teacher graduates acquired both hard and soft skills that will enable them to become educational leaders and which they are called upon to form in schoolchildren.

The survey conducted in the said group showed that in order to be an efficient leader in education, one needs fundamental knowledge of the subject (self-monitoring, self-assessment, decision-making, and conscious choice) and the responsibility and the ability to attract and motivate (100% of respondents chose these positions as important). Moral behavior, continuous learning, team management skills, and teaching methodology move into second and third places (93% and 86%, respectively). Ability to work in a team (79%), communicative skills (72%), ability to creatively use various sources of information (72%), and knowledge of new educational strategies (72%) come fourth and fifth. The ability to determine the goals of professional activity was considered an important quality for the leader only by 57% of the respondents. This is a rather low indicator, considering the fact that goal setting is an obligatory component of any activity. Probably, future teachers of a foreign language do not have enough knowledge on management. Competences in solving moral problems on the basis of personal choice (21%) and patriotism (14%) follow in the rear. The ability to engage in research and scientific work also occupies a low position (43%). Meanwhile, research activity is one of the most important components of professional development of the teacher. Therefore, it is essential to urge teachers to take the initiative and make qualitative adjustments/improvements, to search for nontraditional ways of solving educational problems.

It should be noted as a positive result that students understand the importance of self-education, the skills to work with scientific literature. Without an analysis of

Table 1 What are the most important professional qualities for leaders in the field of education?

Qualities, significant for the leader in education	Degree of importance (%)		Degree of professional development	
	(%)	Number of respondents	(%)	Number of respondents
<i>Professional qualities</i>				
Fundamental knowledge of the subject	100	28	86	24
Knowledge of teaching methodology	86	24	43	12
Knowledge of new teaching strategies	72	20	43	12
Awareness of school problems	50	14	64	18
Knowledge of psychology	50	14	43	12
Skills for diagnosing and correction of individual development of students	64	18	36	10
Ability to determine the goals of professional growth	57	16	86	24
Ability to plan and evaluate the results of their activities	79	22	100	28
Skills of self-control, self-evaluation, decision-making, and conscious choice	100	28	100	28
The ability to creatively use various sources of information	72	20	64	18
Ability to engage in research, scientific work	43	12	64	18
<i>Leadership skills</i>				
Group management skills	86	24	36	10
Skill to work in team	79	22	93	26
Ability to engage, motivate	100	28	93	26
Continuous learning	86	24	100	28
<i>Personal qualities</i>				
Competence in solving moral problems on the basis of personal choice	21,5	6	72	20
Moral behavior	93	26	100	28
Responsibility	100	28	100	28
Communicative skills	72	20	93	26
Taking initiative	57	16	72	20

Source: the authors

theoretical works and keeping up with the latest trends, it is impossible to become a leader in education.

It is positive that most students, in their opinion, possessed the skills to analyze their work. These qualities will help future specialists to identify weaknesses and take measures to correct them. It should be noted that most students note the importance of leadership in educational community, although they do not come to grips with the real mechanism of professional leadership.

Positive assessments of their own knowledge and skills and their qualification are distributed very unevenly, which indicates the scatter of interests.

From the proposed positions of the “professional” block, the following qualifications are included in the priority group: the ability to plan and evaluate the results of their pedagogical activity (first place), fundamental knowledge of subject (second place), and then the ability to determine the objectives of professional growth (third place).

At the same time, the ability to take initiative (72%), the quality necessary for the leader, was significantly lower. Students are very critical about their knowledge of the problems of the modern school and new educational strategies, which signals that students are aware of the gap between theoretical preparation for pedagogical work and the real practical situation.

5 Conclusion

The study showed that students have a fairly clear idea of the essence of leadership. Students understand leadership not only as a process of formal management of social communities but also as a high level of professionalism.

The image of a teacher-leader the students shaped has the potential of a researcher and a knowledge translator. The majority of students believe that a modern teacher should implement a learner-centered approach, helping them to deal with the challenges and developing their personalities. On the whole, students are aware of the current trends in education and its main hardships. Professional qualities and skills together with the personal qualities are the constituents of a leader in education.

However, we see a divide between an ideal model of a teacher (researcher, psychologist, and knowledge translator) and a good command of leadership skills, in particular low level of creative and research capacity.

Teacher training institutions, especially in Eastern countries, should reconsider their approach to leadership in education. The society demands another formation of a leader in education, which can be generated through the development and implementation of new techniques and methods aimed at fostering a proactive personality. Discussions, problem-solving, role-plays, brainstorming exercises, case studies, and any activities where the participants act on the basis of creativity and interaction should become part and parcel of an educational process.

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Representations of University Staff About Leadership Qualities and Professional Success of Managers



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Abstract In the research, particularities of ideas of the higher educational institution employees about leadership skills and professional successfulness of their managers (chairpersons, deans, and deputy deans) were found out. Among the key leadership skills of the managers of higher educational institutions, the following were noted: resistance to stress, an ability to manipulate others, sociability, an ability to communicate, responsibility, fairness, a positive attitude toward others, friendliness, confidence, and consistency. The following qualities were named as ones which the higher educational institution managers lack: honesty, relevant self-rating, decency, consistency, an ability to resolve conflict situations, and belief in one's collective. According to the survey, 35% of all managers are professionally successful while others are not – due to their professional incompetence, inability to build efficient communication, communicative incompetence, lack of personal growth and self-development, and new research in science and practice. The methodologists of higher educational institutions chose communicative and professional incompetence as the main criteria for the professional unsuccessfulness, while for teachers of higher educational institutions, they were the professional incompetence and lack of new research in science and practice. The data obtained imply further studies of the problem outlined and working out of recommendations for the development of leadership skills in managers of the sphere of education.

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1 Introduction

Leadership is a social and psychological phenomenon that is directly associated with leadership skills. Leadership skills are understood by the authors as a total of such personal qualities that allow influencing other people and obtaining support from them for achieving a significant goal. Leadership skills may be conventionally subdivided into the following groups (Bodrov 2006; Rodionova 2013): personal ones (initiative, readiness for risk, life resistance, independence, confidence, responsibility, active stance, readiness for change, charisma, cognitive style of activity, self-adjustment, etc.) (Bodrov 2006; Tskhay et al. 2017; Mumford et al. 2015; Collins and Chris 2015), organizational and managerial ones (flexibility in communication, an ability to lead people after oneself, etc.), and social and psychological qualities (sociability, fairness, and so on). Leadership skills influence the human professional successfulness in quite an ambiguous way, which is coupled with a number of factors: requirements posed for a job at a certain organization, particularities of relations between the management and the subordinates, and others. Leadership skills are critical for managers as they enhance the efficiency of interpersonal communication in the organization and promote the unity of the collective.

Professional successfulness is a special phenomenon associated with the objective factors (i.e., ones a precise external evaluation of which is possible) and the subjective ones (“the total of one’s judgments about one’s professional achievements and results”) (Rodionova 2013: 296). Among them, the following factors can be conventionally singled out (as many factors imply both subjective and objective components included) (Bodrov 2006; Rodionova 2013; Toloček 2010; Kayasheva and Khanova 2015, 2016, etc.):

- The conformity of characteristics and qualities of the labor subject to the requirements of a certain occupation, performance in the professional activity, career promotion, having a job that is up to one’s qualification level, the pay size, conditions of work, the level of professional knowledge, abilities and skills, etc.
- Satisfaction with work; the subject’s having a certain system of ideas about ways of career promotion; particularities of the professional motivation, levels of self-rating and aspirations of the individual; seeking self-fulfillment, self-improvement, and the individual’s creative self-expression in the occupation; initiative in further training; the efficiency of building interpersonal communication at various levels of interaction in the professional activity (with the management, peers, subordinates, and customers) and satisfaction with it; psychological readiness for rebuilding the time and space of life; and so on.

The criteria of the professional activity successfulness can be conventionally subdivided according to its performance indicators, i.e., into quantitative and qualitative indices (productivity, efficiency as the ratio of result to expenses for achievement thereof, product quality, etc.) and the procedural aspect (error-free actions, the level of complexity of tasks solved by the teacher, and others) (Bodrov 2006; Toloček 2010; Rodionova 2013).

2 Review of Literature

The problem of leadership and leadership skills was studied back in the antiquity by the philosophers Aristotle (2003), Plato (Asmus 2005), and others. The ideas of leadership for the benefit of man's serving to God were developed in the Middle Ages by Augustine, Thomas Aquinas, etc. In the Renaissance time, in 1513 N. Machiavelli's essay "The Prince" was published that revealed manipulative technologies and main qualities of a political leader (Machiavelli 2017). Later the problem of leadership was studied by Erasmus of Rotterdam (Asmus 2005); Bacon et al. (2017), in the Age of Enlightenment; Locke (1988) in his work *Two Treatises of Government*; Hegel (2005); and others. Since the end of the nineteenth century, there had been psychological studies on the nature of leadership about its hereditary grounds, and the situational theory of leadership became popular that demonstrated that various conditions (depending on the time, place, and circumstances) required the expression of various leadership skills (Smith 2014; Fiedler 1967). This theory underlay the situational and personal theories developed in the 1950s. Then, the interaction-expectation theory, the motivational one, the behavioral one, the behavioral and situational theories (Tannenbaum 1961; Yaverbaum 2008 etc.), and the personal and situational one (Theory of leadership 2017) become known. Leadership has been extensively studied. In the subject approach, a leader is an active subject of social influence who is able to transform the group's value references and attitudes and to integrate it (Brushlinskiy 1991).

Currently the investigation of professional successfulness attracts specialists from various spheres – the psychology, pedagogy, management, economics, and so on. The problem of professional successfulness has been studied by a number of Russian and foreign researchers (Nemerowicz and Rose 1997; Ames and Kamrath 2004; Bodrov 2006; Rodionova 2013; Theory of leadership 2017). The necessity of development of leadership skills in managers in various spheres – in education, business, etc. – should be pointed out as this will promote their professional successfulness (Bodrov 2006; Kiseleva 2011; Rodionova 2013; Yeow and Martin 2013; Santos et al. 2015; Tskhay et al. 2017; Combe and Carrington 2015).

3 Methods of the Research

In 2016, the authors used the oral inquiry as the research method. The inquiry covered 80 employees (methodologists and teachers of humanitarian faculties) working at higher educational institutions of Moscow and Moscow region. The objective was to find out more precisely the employees' ideas about leadership skills of managers of the higher educational institutions (chairpersons, deputy deans, and deans) and their professional successfulness. Each survey participant answered a number of questions, with the following being the main ones:

- What leadership skills do you consider the most important for higher educational institution managers?
- What leadership skills can you point out in your managers at the higher educational institution?
- What leadership skills do you think these managers lack?
- What is your opinion on what a professionally successful manager should be?
- Can you call your managers the professionally successful ones?

4 Results and Discussion

The analysis of answers given by the respondents has shown that among leadership skills, they frequently list the following qualities as the most important for managers of higher educational institutions: resistance to stress (98.75%); sociability, an ability to communicate (88.75%); responsibility (50%); honesty (50%); fairness (43.75%); a positive attitude to others, friendliness (43.75%); confidence (37.5%); consistency (25%); tactfulness (25%); a good sense of humor (25%); enthusiasm (25%); positive thinking (25%); an ability to fulfill one's promises (16.25%); restraint (12.5%); an ability to manipulate others (12.5%); caring about the employees (12.5%); charisma (6.25%); an ability to inspire (6.26%); an ability to forecast events (6.25%); readiness for risk (3.75%); an ability to set goals (3.75%); belief in one's collective (3.75%); an ability to show care (3.75%); stamina (3.75%); activism (3.75%); attentiveness (3.75%); a relevant self-rating (3.75%), and the developed voluntary qualities (3.75%). Thus, for the respondents, the resistance to stress, sociability, an ability to communicate, responsibility, honesty, fairness, a positive attitude to others, friendliness, and confidence are the most significant.

Among the main leadership skills of the managers of higher educational institutions, the following were registered:

- Resistance to stress (62.5%)
- An ability to manipulate others (51.25%)
- Sociability, an ability to communicate (37.5%)
- Responsibility (37.5%) and honesty (37.5%)
- Fairness (25%)
- A positive attitude to others, friendliness (25%)
- Confidence (25%)
- Consistency (25%)
- Tactfulness (12.5%)
- An ability to fulfill one's promises (3.75%)
- Restraint (3.75%)
- Caring about the employees (3.75%)
- A good sense of humor (2.5%)
- Enthusiasm (2.5%)
- Positive thinking (2.5%)

Resistance to stress and an ability to manipulate others are the most frequently met among the managers' leadership skills as compared to others. The authors suppose manipulating others is an ambiguous quality as in this case the employees can be viewed as the objects of influence in the interests of the organization's managers, with their own needs and interests ignored (Dotsenko 2000). Nevertheless, in some cases manipulation becomes acceptable for resolving the complicated managerial aspects. The gap is marked between the employees' ideas about leadership skills and the leadership skills that managers have in fact. Although the value of sociability as well as the ability to communicate are very important, these skills are not developed enough by many managers, which becomes one of the reasons of conflict situations in various units of higher educational institutions leading even to dismissal of employees. The authors consider such positions of leadership skills as an ability to fulfill one's promises, restraint, caring about the employees, a good sense of humor, enthusiasm, and positive thinking to be quite complicated. The lack of these qualities (and communicative competency) may yield an unfavorable social and psychological climate forming in the organization.

Among the leadership skills which the higher educational institution managers lack, the following were mentioned:

- Honesty (50%)
- Relevant self-rating (50%)
- Decency (37.5%)
- Consistency in management (37.5%)
- An ability to resolve conflict situations (35%)
- Trust for the employees (25%)
- Personal maturity (8.75%)
- Charisma (3.75%)

According to the respondents' answers, honesty and relevant self-rating are one of the trickiest leadership skills of higher educational institution managers. The problem category "relevant self-rating" identified by the questioned ones implies the managers' having an unjustifiably high self-rating that is not up to their qualification level and actual capacities. The teachers of psychology-related subjects have registered the manifestations of the Dunning-Kruger phenomenon in the managers (this is a specific metacognitive bias pronounced in people having a low qualification level and exaggerated ideas about their abilities) (Kruger and Dunning 1999; Dunning et al. 2003).

The decency category was also one of the problem-loaded ones. The employees grouped under this category the managers' failure to fulfill their promises, their personal interests prevailing over the professional ones, and the like. The managers' inconsistency in administration (orders that contradict each other; requirements and directions of the management that do not take into account the actual situation at the higher educational institution, etc.) is one of the adverse factors for the employees of higher educational institutions. The managers' inability to resolve conflict situations

can lead, e.g., to losing the valuable highly qualified personnel, lower quality of teaching and methodological work, and students' transferring to other higher educational institutions.

The lack of trust for the employees also results in excessive control of all aspects of the employees' professional activity on the part of managers and in the impossibility to resolve problem situations within the optimum time. Personal maturity as a leadership skill was mentioned by the teachers of psychological subjects. Infantilism and the propensity to shifting the responsibility on others are indicative of a manager's personal immaturity. The hysteroid-type managers are characterized by personal immaturity and inability to independently resolve the managerial problems in an efficient way.

Most respondents understand the professional successfulness as the conformity of a manager's qualities to the requirements imposed for the job and the manager's performance in the professional sphere. Thirty-five percent of all managers (chairpersons, deans, and deputy deans) were called professionally successful; the remaining 65%, according to the questioned ones' ideas, are not professionally successful due to their professional incompetence, inability to build efficient communication, communicative incompetence, lack of personal growth and self-development, and lack of new research in science and practice. For the methodologists of higher educational institutions, it was communicative and professional incompetence that were the main criteria of professional unsuccessfulness of the managers, while for teachers of higher educational institutions, these criteria were the professional incompetence and lack of new research in science and practice.

5 Conclusion

Leadership skills of higher educational institution managers are essential for building the efficient work of the units of higher educational institutions. Nevertheless, as it has been found out by the inquiry conducted, there are a number of difficulties associated with the aspects. The authors suppose this is conditioned by a crisis being undergone by the Russian education, the change of status of both teachers and managers of higher educational institutions, some employees of higher educational institutions going to work in other spheres that are not associated with education, by material difficulties, etc.

The authors come to the conclusion that the ideas of the employees about leadership skills and professional successfulness of their managers largely fail to match the actual situation at higher educational institutions, which brings about a number of difficulties in managing the units of higher educational institutions and lack of mutual understanding between the managers and the employees (methodologists and teachers). Further research of the problem outlined by the authors is necessary and so is the search for opportunities for developing the managers' leadership skills within the higher education system and their professional successfulness. The authors suppose that in the future finding out the relation between

leadership skills and professional successfulness of the higher educational institution managers is a necessary aspect in studying the social and psychological phenomenon of leadership.

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Leadership in Educational Management Process in Russian and Foreign Higher Educational Institutions



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Abstract This contribution analyzes the main characteristics of realization control of educational process in the Russian and foreign higher education institutions with the purpose of identifying the leaders in higher education. Representing a process of integration of educational institutions, network form of education helps along harmonization of educational institutions. Important aspect of this activity is the quality of education and improving of education systems in different countries. It is worth to take into account that education can be viewed as a process of getting knowledge or as benefit on modern economic commodity market and services. An important condition of the development of the harmonious relations between educational institutions is the balance of educational process, availability of education, and rendering of high-quality educational services. Comparison of educational process in various higher education institutions makes possible the optimization of educational system and identification of the most unique educational technologies. In order to achieve the required degree and status of leadership, science and education have to be an essential part of any educational system. Our comparative analysis of educational process in higher education institutions in Europe, the USA, and the Russian Federation shows their uniqueness, originality, achievement of optimal results of a research, advance of science, self-learning activity, and the improvement in the quality of the provided educational services.

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1 Introduction

Integration of educational system visibly influences the professional education around the world. The Russian Federation in this regard is not an exception. This integration is about obvious processes of the education system and about emergence of new standards at the higher school, rules, examples, reference goals, and motivations (Altbach and Knight 2007).

Modern processes of integration and globalization of education as well as market mechanism of competitiveness of the universities involve improving the quality of education. Education quality comes to the forefront in a modern educational system, and the knowledge it creates is important not only for the educational process itself but for the support of the economy and social life (Koudelková and Svobodová 2014). Many universities, not only Russian but also from the other countries, are not able to adapt to new economic reality as well as to meet the needs of the key players of an education system. The quality of education is therefore dictated by the social needs under the conditions of the global integration.

Education is a single, purposeful process of upbringing and training which is the socially significant public good and performed on behalf of the person, family, society, and the country. It is designed to craft leaders and always has to comply with the task of providing leadership and guidance (Velez et al. 2014). Moreover, education represents a body of the acquired knowledge, abilities, skills, value systems, experience of activities, and competences of a certain volume and complexity for intellectual, spiritual and moral, creative, physical, and (or) professional human development of the person, satisfaction of her/his educational requirements, and interests, meeting educational person's needs and interests (Government of the Russian Federation 2012; Smirnova and Lebedev 2014).

A major impetus to development, rapprochement, and harmonization of the higher education in Europe has been given by Bologna Process on June 19, 1999. At the special conference, the declaration entitled "European Higher Education Area" (the so-called the Bologna Declaration) has been adopted. Nowadays, the Bologna Process unites 47 countries, both European Union (EU) Member States and non-EU countries. The process is crucial for deepening the integration in the spheres of science and research, as well as in the higher education. It is also very important for the accession, transition, and further integration into the EU spheres for the countries of Central and Eastern Europe (Jiroudková et al. 2015; Ciešlik et al. 2016).

The Russian Federation already joined the Bologna Process in 2003. The process impacted its educational system and enabled it to enter to many provisions offered by the Bologna Declaration (even though in many, especially distant universities at the outskirts of Russia, the provision remains on paper). At present, Russia has a three-level system of the higher education (bachelor's degree, master's degree, and PhD degree awarded in the doctoral program). But, having said that, some education programs such as "economic security," "IT security," "law enforcement activity," "general medicine," and the like have specialist degrees (the specialist degree was the first degree in Russia which was replaced by the bachelor's and master's degree).

One can see that the main characteristic of educational process is self-learning activity of students, skills training of research work, and increase quality of the provided educational services. In order for the educational systems to become competitive, they also need to consider the right financing methods which become a crucial issue in Russian education (Gulicheva and Osipova 2017).

2 Organization of Educational Process in Russian and Foreign Higher Education Institutions

Modern integration approaches and the organization of educational process of students in Russia and abroad have many similarities. In both cases, this fact may represent urgent, complex problem of planning, organizing and managing, and improving the quality of education of students and their professional training. They are based on the principles of combinations of training and analysis (notably in Germany), integration, combinations of classroom and out-of-class teaching methods of education, and the continuity of studies at higher education institution (Iskhakov et al. 2016).

Every higher education institution paves the way for integration of the process of self-learning activities into educational system. The productive organization of self-learning activities makes the main elements of educational process more and more and becomes its defining feature. In various forms of self-learning activities, the functions having an exit to the development of research, creative, and professionally necessary abilities of students become more active, integrative function, socialization function, cultural function, and predictive function, which can also be a part of professional mobility.

For example, in the higher education institutions of Germany, writing and producing research works constitute a basis of teaching the students focused on continuation of self-learning activities after the finishing of higher education institution.

A complete and full preparation for a seminar in higher education institutions of the USA and Germany would typically include the micro-research demanding not less than 4 h of productive and creative lectures with the use of the fresh scientific periodical press. In the terms of quality, such preparation can be compared with the scientific and pedagogical load of doing coursework for students in Russian higher education institutions. Only in this case, classes in four subjects weekly are held (Martens 1974).

The special part is assigned to consultations of the study plans and educational strategies with the foreign higher education institutions. Consultation is considered to be an addition of educational process, as one of the processes of acquiring knowledge by students and mastering skills is represented by the self-learning activity. Consultations provide an incentive for scientific cooperation between the lecturer and the student. Here, research learning methods, processing of research

tasks and problems, and possibilities of individual participation of students in the process of scientific work are repeatedly discussed. Students are provided the help of the lecturer for making the program and passing the chapter. In preparation, they use specialized educational material, for example, educational movies, lectures, computers, and special textbooks for preparation and passing exams. The educational process is organized in such a way that only after taking their exams the students can pass to the preparation of the subsequent section of the program (Sokolova 2015).

In general, it is possible to note that the seminars and discussions contribute to the maximum integration of self-training activity and into educational process and are most widespread in foreign high school practice. Students are learning different methods of educational and research activities and are undergoing the eloquence training at the seminars. The choice of this organizational form helps students to understand problems better because information of every participant is elaborated with the help of the reports of others. Various views of the discussed problem are considered to make the problem more visible. All these give the participants the chance to express their thoughts critically and to accept or reject the new ideas. The new arriving offers for the development of group opinions or decisions are corrected and steered into the desired outcomes.

Another interesting innovative technique that is often used is the principle of a “round table” that allows all students to see each other and interact with each other in a good way, as well as establishes the equality relations between them. Thence, the presence of the teacher among them makes the situation less formal. The above-stated forms of teaching and learning develop the ability for forecasting results and consequences of the actions directed to the solution of specific professional goals and achievement of the professional purposes. They help to conduct organizations of group in realization of the specific professional project, lead to the fast adaptation in professional collective, and increase skills of business and professional communication in concrete manufacturing situation (Shaidullina et al. 2014).

On the other hand, the analyses of the higher education system in the USA show that it is based on the organization of self-learning activity of students. For example, under the influence of the ideas of humanistic psychology in the higher education system of the USA, there were groups of “open learning” and “open universities.” There, students can easily find out their research interests and express various points of view during the dialogue with lecturers and also critically analyze scientific positions. In the American higher education institutions, there are no standards or centralized duplicated curriculum (as in the case of Russia). Each university prepares its own curriculum of specialties that include the sets of basic courses, centerpiece of professional learning with the containing of delivery rate of competences, knowledge, and skills (beginner, intermediate, or advanced), while a considerable part of special, humanitarian, and general education courses is studied by choice (Zlatkin-Troitschanskaia et al. 2015).

Higher educational institutions in the USA use flexible combination of individual learning and coeducation. Many higher education institutions in the USA and Western Europe also actively use the blended learning. The blended learning includes a combination of different techniques and control diagram learning activity:

learning in audiences, distance learning, and synchronous distance of learning. A part of lectures gives in audience directed by professors and another is self-dependent (Starichenko 2013).

An important feature of the American universities is also that the Degree Certificate with Distinction is issued not in all higher education institutions but complies with certain rules. For getting the “Degree Certificate with Distinction,” it is necessary to study courses which are specially designed as the courses for getting Degree Certificate with Distinction. For example, at the University of California, Berkeley, for obtaining the same Degree Certificate with Distinction in physics, it is necessary to study a course of theoretical physics postgraduate level. One more special feature of the American system of the higher education is framing the students by their skills of the independent innovative thinking and a broad mindedness on the basis of the modern ideas.

The British system of the higher education is also of a special interest. It is one of the most stable European types based upon long university traditions. Great Britain, before many European countries, realized and understood the need of educational modernization and joined forces in the development of its own strategy. Now, special attention is attributed to having a practice of effective stimulation of research activity and the strategy of internationalization of the British higher education (Kalimullin and Gabdilkhakov 2014).

In the Russian system of higher education which is set within the framework of the implementation of the National Education Project, the competition among higher educational institutions is promoted and endorsed from the above. The purpose of the competition is to select the universities which could not only organize effective process of learning but also carry out their integration with the scientific research (Smolentseva 2015).

Winners of this competition become, in fact, leaders of the higher educational system and are given the status of the National Research Universities (NRU). NRU draw additional financing which is invested in acquisition of the new educational and experimental equipment adoption in pedagogical process of innovative technologies. The project started in 2010 providing that the status of NRU would be awarded to those excelling in the competition and outperforming the others for a period of 10 years.

Higher education institutions regularly report about the implementation of the program of the National Research University to the authorities. In cases when the progress in implementing the program is found inefficient, the status can be withdrawn. Thus, the status of NIU was received by the 27 universities, and the status is given to the 2 higher education institutions without the competition. Among them are Moscow Engineering and Physical Institute and Moscow Institute of Steel and Alloys.

3 Quality and Competitiveness of Higher Education Institutions

The quality of education can be better described as an ability of the educational system to teach specialists that would become leaders of tomorrow's economy, politics, and social life. They should be knowledgeable, skillful, hardworking specialists who know how to successfully put their newly obtained knowledge into practice. In general, one can argue that the quality of education consists of the following components:

1. High qualification of the professional and teaching staff
2. New techniques of teaching and using modern teaching methods
3. Quality of learning programs and accreditation of the universities
4. Work quality control of lecturers and students
5. Material, technical resources, and corresponding equipment found at the universities

In order to conduct a comprehensive analysis of the quality of education, it is necessary to focus on the factors influencing educational achievements in various countries. When analyzing the quality of education, some foreign researchers keep the following basic approaches: (i) deductive, (ii) economic, and (iii) inductive (Cavalli 2007).

Deductive approach of determination of educational quality follows from more general theoretical suggestions. General pedagogics and economic theories are usually considered and formed to constitute its base. The pedagogics puts emphasis on learning methods. But the same methods are exerting various impacts on students with different abilities (e.g., intellectual, ethnic, mental, professional, etc.). It makes the process of education a very difficult and complicated matter. In view of the above issues, one can conclude that there is an individual approach and a humanistic paradigm of education.

Other approach to quality research is an economic one. According to this approach, the quality of education is perceived and understood as the balance between supply and demand connected with the place in the market.

Education is regarded as goods or service. It is the key issue in considering economic prospects. Education being considered a service is a necessary assumption for the effective functioning of economy. Many students in today's Russia are focused on obtaining benefits from getting the diploma. They are studying for "the sake of appearance," prefer to pass exams easily, engage in a relaxed attendance of their lectures, and prefer unproductive entertaining lectures without thinking of prospects and good quality of the education.

The quality of education cannot be evaluated or considered on the basis of one theory and, therefore, should be instead based on the inductive approach. In accordance with this approach, a basis for quality achievement of education is educational practice but is not educational theory. The educational practice is the one connected with policy of the governments, accreditation of the universities, and the Bologna

Process. The model of quality assurance had its birthplace in Western Europe where it emerged from the middle 1980s. In Central and Eastern Europe, the model started to be implemented as late as in the 1990s. Accreditation became a universal political means and is continuing to remain as such for the last 30 years. However, there are large regional and country differences and disparities. In Great Britain, accreditation is applied to all universities; in Austria, it is applied only to the private higher educational establishments. In Sweden and Norway, accreditation is applied when institutions try to raise their own status from colleges to the universities. There were the Great Britain, France, and the Netherlands who pioneer relation and schemes of high-quality education standards in Western Europe. One can assume that it happened due to the good and effective control of the level of bureaucracy. In 1998, the EU has made the decision to create the European Association for Quality Assurance in Higher Education (ENQA). Within several years, the quality standards adopted by this organization were reflected in the Bologna Process. During this period, all countries which signed the agreement began to follow the single standards of education. Only Germany, Italy, and Greece became an exception. Countries of Eastern and Central Europe also supported and implemented the Bologna Process only after their counterparts in Western Europe did.

Nevertheless, many countries adapted a different policy of the state accreditation which provides the basic level of quality control. It is possible to come up with the following arguments in support of this system of accreditation:

1. Accreditation gives an impulse to the improvement of quality.
2. Accreditation makes possible the educational internationalization (according to the Bologna Process).
3. Accreditation helps transparency and standardization of programs.
4. Accreditation makes possible the increase of education quality.

Integration of education led to the adoption of various systems of accreditation in Europe. This is very important since the Bologna Process also helps to improve the mobility of students, and accreditations help to facilitate this process. According to the concept, accreditation represents a means of quality assurance. It gives an opportunity to make the comparative analysis of various educational programs and to lead to a common form. It also contributes to the transparency and standardization of the programs under the umbrella of various higher educational institutions in different countries (Kallo and Semchenko 2016).

Lots of attention is paid to the professorial and teaching staff as well as their personal skills and qualifications. Proving the compliance with the accreditation guidelines and demands often includes demonstrating sufficient material and technical resources as well as establishing good and functional working conditions. For example, at the Swedish universities, each lecturer has her or his own class equipped with a computer and informational and communication services or other technical supporting facilities, as well as leisure facilities, necessary household appliances, etc.

Institutional structures in estimating quality of education make the higher educational institutions comply with many demands, indices, and quality norms. Among these norms are quantitative indices of quality and quantity, such as the numbers of

accepted students and recent graduates, relationship between students and teachers, the number of publications in the Scopus or Web of Science databases, etc. Although, the latter constitutes a questionable scientific matter, since many articles published in the local journals are not indexed in these databases and thence simply fail to be recognized and as a result are not applicable for evaluation. And this is not to mention the issue of the so-called predatory journals that constitute a real problem (Strielkowski 2017). These quantitative indices do not provide sufficient information about the quality of the graduates or about the quality of lecturers or the process of teaching. Surely, quantitative indices can represent a certain basis or the starting point for estimation. However, they are obviously insufficient for summing up and effectively evaluating the quality of education. Thus, the emphasis on quantitative indices and indicators on which the universities and individual creativity are estimated is often in negation with the real quality indicators which can be measured using other criteria. For example, the activity of students at the lectures, creative discussions, innovative works, and individual self-learning activity are the indices that can be used, just to name a few.

With regard to the above discussion, higher education institutions start to pay more attention to building ties and connections with industry and production. Germany is a pioneer in this process, and it gained proficiency and skills in matching up the needs of the industry and business with the offer of the higher educational institutions applying such tools as the “dual system” and a design method.

4 Conclusions

Problems and perspectives of educational development become an important social and economic problem that influences the societies worldwide. This is a very complex problem, since educational systems in different countries have their own peculiar characteristics. According to the World Higher Education Database established by the International Association of Universities (IAU), the leading role (according to the majority of educational quality and performance indicators) belongs to the higher educational institutions based in the USA. One can clearly see that this became possible, thanks to the American well-organized system of higher education.

When it comes to the accreditation system in Russia and Russian higher educational institutions, one can see that it has a hierarchical state (from-the-above) character. The Russian system of higher education does not include the public organizations which could provide effective quality control of education in the system with the state structures. Compared to the American model where there is the whole network of general professional organizations, Russia still lacks behind. The USA has trade unions and public organizations (e.g., associations of physicians, engineers, lawyers, etc.), and these organizations play an important role in ensuring quality control. These organizations carry out specialized accreditation and gauge

programs of higher education institutions because they are interested in improving the status of professions and want to ensure the market entry of good specialists.

However, one can see that American and European models of accreditation are quite similar. They have a networking structure and a way of involving organization. They are also marked by the existence of the licensed accreditation agencies created by professional associations and public organizations.

When it comes to the case of Russia, one can observe several negative tendencies. Unfortunately, Russian science and its remarkable achievements are often considered redundant by the governing authorities, any which leads to the pressure on the Russian lecturers to get published in foreign journals indexed in Scopus and Web of Science. Russian science and its outcomes are well-known around the world, and this is especially relevant in such spheres as mathematics, physics, astronomy, or chemistry. The citation indices that are deemed necessary for coping up with the quality norms imposed from abroad provide quantitative assurance but not the qualitative one. At present, the higher educational institutions are judged based not on the quality of the published articles but on the numbers of these articles.

Overall, one can see that society and market are interested in quality control conducted by the means of the accreditation systems. But it is also necessary to pay attention to the difficulty that lies in the determination of quality and the complexity caused by the procedures used for this control. It becomes apparent that in many cases, qualitative evaluation becomes a very important issue in terms of stimulating higher educational institutions and providing their leading position in the world.

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Leadership in High and Secondary Schools: Global Overview



Svetlana Kalyugina, Liudmila Kiseleva, and Elena Chizhevskaya

Abstract Effective leadership in education, especially in high school education, plays a major role in making a difference to improve learning and increase the value added of educational process. In the recent years, there have been tremendous changes in virtually all fields of education, and these changes have led to the development of positive outcomes. Some of these changes include technological innovation in education and changes in leadership styles. Various reforms have been carried out in the field of education, and these reforms aim at changing the management in learning institutions, so as to make it effective and engaging. These reforms and changes have been conveyed in the transition from the supervision of school-work to empower staff members in schools, with a change in the roles of principals (or head teachers) and teachers. To achieve success in this transformation, it calls for accountability on the side of principals and staff members to provide results of teaching and effective operation of the school. Our contribution provides a comprehensive and concise global overview of the issue of leadership in high and secondary schools. We are evaluating the issue of leadership in schools and focus on the figure of the school principal as the key element in shaping up and forming the concept of leadership for the young individuals who are creating their sets of values to be followed in their further lives.

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1 Introduction

The issue of leadership in high and secondary schools represents a very complex and interesting aspect of the problematic leadership in education (Davies et al. 2001; Bilan 2014; Jasinskas et al. 2015; Mishchuk et al. 2016). One would probably agree that the prerequisites of one's behavior, view of the world, social skills, and skills of interacting with others are formed as early as in one's teens or even before. Thence, the phase of upbringing that includes high and secondary school years represents a very important period in the life of every given individual because it contributes to her or his formation as a human being and a functioning cell of the society. These years mean a lot in forming an individual for the future success in business and economics, as well as in the other spheres of public, social, and economic life (Kozubikova et al. 2015; Abraham et al. 2015; Balcerzak and Pietrzak 2016).

In the 1980s, experiments were carried out around the world on whether and how to implement reforms in high and secondary schools. These reforms aimed at changing schools' organizational structures and the way in which schools were managed. This change granted authority to school principals (Robbins 2001). According to this new leadership role, principals had to encourage an organizational culture that was portrayed by transparency and standards, and they also had a responsibility to solve a substantial amount of different daily problems. As a result of this new role, the question arose pertaining to the ability of a school principal to lead his school in the complex modern reality, i.e., her or his ability to lead in this era of technological evolution and adoption in schools. There is hence a need to evaluate leadership in schools and determine the leadership style that can result in more effective running of schools in the present days.

The needs of an individual and of an organization affect leadership styles. Some managers prioritize the needs of the organization, while others give priority to the needs of their followers (Morselli 2015). The current professional literature concerning leadership engages two levels of influence that exist between leaders and their followers. One influence is based on the understanding that a leader develops the concept of cost or benefit. This is perceived as "transactional leadership" in literature. The other influence relates to the leader generating feelings, and it increases a leader's awareness to what is appropriate and important for followers, and it provides significance to what they do. This concept appears in the leadership literature where it is often labeled as the "transformational leadership" and where its implications and outcomes are analyzed in detail (Bennett and Anderson 2003).

2 Leadership and Leadership Styles

According to Burns (1978), transactional leadership can be defined as a "reward-dependent behavior" that includes clarification of the work expected to earn a reward (Burns 1978). Such rewards are necessary in that they affect motivation. There is yet

another element in transactional leadership referred to as “active management by exception.” This element includes following up followers and having corrective actions to see to it that work is being done effectively. Bass and Avolio (1994) added on Burn’s definition by bringing in another element known as “passive management by extension.” This element includes using dependent punishments to deal with situations where followers conduct themselves in a way that is a clear exception from accepted performance and standards. Burns (1978) depicted transformational leadership as a process that enables leaders and followers to help each other to progress in motivation and morality. Such leaders try to raise their followers’ awareness by promoting moral values such as justice, freedom, humanitarianism, peace, equality, etc., and they do not lower feelings like greed, fear, hatred, or envy (Bryman 2007).

In the 1980s, school principals utilized transactional leadership styles, but with innovation and development in technology, there was a need to develop other leadership styles so as to achieve success. This led to the introduction of transformational leadership style. Characteristics of transformational and transactional leadership styles are dominant in schools (Thrash 2012). School principals are deemed to be the key figures that constitute leadership that is meant to lead the system of education in the twenty-first century, so that the education system can cope with the challenges that it comes across when working within a system that has seen many changes in the past decades. In view of school principals, transformational leadership has been proven to be suitable to a dynamic and complex working environment that is encountering many intellectual challenges like those that are faced by principals and their teams. Researchers have maintained that transformational leadership has succeeded in coping with challenges faced by the education sector that is facing a changing environment, one that is contributing toward the success of schools in implementing technological innovations (Robbins 2001).

Through transformational leadership, principals have been able to embrace new technology that has fostered an environment where there is anticipation that students will experience tremendous success. Principals who employ transformational leadership style have direct involvement with designing curriculum and its implementation. They also understand teachers’ work, and hence they build professional learning communities that inquire, challenge, and support their professional practice (Cole 1995). Being whatever and whoever they are and whatever values and behavioral styles they represent, they enable teachers to inquire to the links between their practices in teaching and the learning outcomes of each student. Transformational leadership has encouraged innovative teachers to link with each of their students through technology so as to support the students since they know each student’s strengths and weaknesses. Through individual interactions between teachers and students, teachers are able to trace and monitor their students’ success throughout the years. On the other hand, students will be able to interact with their teachers more, and they will also be in a position to study online and do research on their own. They will also be able to report any wrong acts pertaining to school leadership. Last but not the least, students can easily rate their teachers on their performance and ability to deliver.

Recently, there has been appearing a sad and disturbing phenomenon of school shooting. Most of these grim events take place in North America, even though the issue has started spreading to the other countries around the world. Surely, one can say that most shooting in schools result from reasons such as mental illnesses, loose gun laws, poor parenting, and access to guns, as well as other easily explained reasons. Nevertheless, it becomes apparent that school shootings can also be attributed to teachers being too hard on their pupils. This hard style (perhaps very well explained in the popular song “Another Brick in the Wall” by the British iconic rock band Pink Floyd) is something that existed in the past when transactional leadership style was being applied in most schools. This meant that good deeds were rewarded, while bad deeds were punished. Some students may be wrong but rarely do they admit being in the wrong. This builds a perspective in these students that they are always being blamed unfairly. In such cases, when a teacher is hard on a student, or when he singles a student out, the student feels that he is being wronged (Rowold and Schlotz 2009). The teacher may then be considered as the one not to blame, and the student feels that the world is against him. This can result to a student shooting a fellow student who may have caused the situation. Transformational leadership has been able to minimize shooting cases as there is substantial communication between teachers and students. In other words, the relationship between teachers and students has been improved, and students do not fear their teachers as opposed to the past when teachers were seen as “gods.”

3 School Principals as Leaders

Overall, given the arguments provided above, one would probably agree that the role played by the school principals in shaping up leaders of tomorrow is critical. A school principal wears many hats in a school during any given day, and the best principals are not only disciplinarians and managers but also instructional leaders. A successful principal will always provide the vision for the school since he is an instructional leader; he will also support his teachers with all resources and assistance that they may require so as to be effective in their work. A successful principal will also monitor the performance of the students and the teachers so as to ensure that he focuses on the main goal. She or he does all this in an attempt to ensure that he creates an environment or school culture in which children can achieve and perform to their full potentials. Principals have roles that they play posing as business managers, administrators, experts in school safety, discipline masters, etc. To manage all these tasks, they require the assistance of other teachers. To acquire maximum support, this call for good working relationship between the principal and his teachers; otherwise, he may be burdened with a lot of duties. To achieve good working relationship, principals must employ transformational leadership, and they may at times employ some aspects of transactional leadership.

The Wallace Foundation has for decades supported causes to improve school leadership. Other than providing support and funding multiple projects in schools,

they have provided lots of publications and research reports on leadership topics that assist principals to learn a great deal of their roles, what makes principals effective, and how they can tie their effectiveness to improve students' achievements (Oplatka 2007). According to the Wallace Foundation, transformational principals have five major duties. These are:

- Shaping visions for academic success of the students
- Creating hospitable climate for education to prevail and prosper
- Fostering leadership growth in others
- Improving instruction
- Managing data, people, and other processes so as to promote improvement in schools

All in all, it appears that the role imposed on the school principals in forging, educating, and setting an example for their pupils is very difficult and demanding. Principals are the ones who become the etalon for their schoolchildren and the teachers alike and form their perception of human interaction and their performance in social and economic life for many years of their lives.

4 Conclusions

A conclusion can be drawn that organizational leaders and in particular school principals have the authority to shape processes and results and to have an effect on the overall conduct and functioning of their followers. Leadership is an active process that involves the motivation of people to execute tasks over time. Studies have proved that transformational leadership has positive implications on behaviors and performances as compared to transactional leadership, and hence leadership should be one central role of a school principal. Comparing between the terms "leadership" and "management," leadership expresses the mission, vision, inspiration, and values, while management relates to the implementation of resources. An educational leader develops educational system and supervises its undertaking. This varies from the roles of a manager that include maintaining the functioning of an organization, and a manager has the capability to ensure that an organization functions effectively to achieve excellence. A school principal can therefore be considered as a central educational figure in learning institutions, and his leadership can affect the practice of education. He is therefore required to guide the teachers and the school to achieve objectives and work hard to foster efficient teaching processes.

Nowadays, a principal's style of leadership is conceived as one of the most influential and significant variables in his day-to-day functions at school. It is hence important to choose the best leadership style for a principal to achieve success in the execution of his duties as a leader.

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Educational Programs in English as a Tool for Increasing Leadership and Integration into the Global Educational Environment: Experience of Leading Russian Universities



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Abstract The article deals with the higher education internationalization process in order to increase its prospects in leadership. The theoretical foundations of internationalization were summarized in the article. The quantitative assessment of the internationalization of higher education by the students' academic mobility criteria confirmed a worldwide positive trend. At the same time, the share of foreign students differs greatly in specific countries. It is proved that the degree of internationalization is influenced by the student's choice of the country and the university. The article proves empirically the hypothesis that the language of teaching is one of the important factors determining the choice of the country and university of study by foreign students. The authors concluded that Russian universities have a low degree of internationalization and Russian students are not involved enough into exchange processes. The offer of educational programs in English implemented by the leading Russian universities, included in the prestigious academic QS rating, was examined using such methods as deduction, comparative analysis, questionnaires, and focus groups. Based on the results of the study, a conclusion was made that Russian universities need to consider the linguistic factor in strategic development programs oriented in integration into the global educational environment.

1 Introduction

In modern conditions, the development of higher education has the following characteristics: the demand for education sharply increases; the forms of education are changing fundamentally; open and distance learning is actively developing; and the sphere of education is considered as a sphere of entrepreneurship, investments, and providing paid services (Altbach and Knight 2007; Altbach 2013). One of the most important modern trends in the development of higher education is

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internationalization. In recent years, many scientific papers have been written about the content and definition of this phenomenon. At present, the definition of the internationalization of education, proposed by Knight, was widely recognized among the researchers. A famous Knight's definition has become almost classical within this context. According to her vision, internationalization is the process of integrating international, intercultural, and global elements into the educational, scientific, and administrative functions of higher education (Knight 2003, 2007). Thus, internationalization in higher education is understood as a process in which the goals, functions, and organization of the provision of educational services acquire an international dimension. Higher education is increasingly influenced by the process of globalization of the economy (Koudelková and Svobodová 2014; Machnáček et al., 2015).

With regard to the above statement, in higher education, under the influence of integration processes, the following problems should be solved: improving the educational services' quality; training of specialists with advanced intercultural skills; development of incentives for behavior and an optimal set of regulatory instruments for the competition and cooperation in order to achieve the set goals; ensuring economic relevance, profitability, efficiency, and relevance of training; and promoting academic values. For this purpose, national governments must act in accordance with the global context and international perceptions consistent with national priorities (Marginson 2014).

Many national governments and supranational institutions are interested in developing scientific, cultural, social, and political ties between countries. This is most evident in the case of the European Union, which in 2011 set an ambitious goal that by 2020, 20% of university graduates with higher education will have an experience of training or internships abroad (Council of the European Union 2011). Academic mobility is one of the most important indicators of the internationalization of higher education. And the indicators of academic mobility are present in almost all international and national university ratings. In this regard, it is very important to have a quantitative description of internationalization by the criterion of academic mobility (Marconi 2013; Salmi 2009; Sadlak and Cai 2009).

The aim of the study is to identify the factors of the student's choice of the university and the country of study and to assess their influence on the process of gaining leadership positions in the field of academic mobility. The research methods used by the authors include deduction, comparative analysis, retrospective analysis, and the focus group method.

2 Students' Academic Mobility Quantitative Characteristics

One can confidently state that the internationalization of education becomes one of the important components of the educational policy of modern states. It also overlaps with branding which is especially crucial for the young people (Simionescu and

Strielkowski 2017). The main countries that act as providers of educational services are Australia, Canada, France, Germany, Great Britain, and the United States. These six countries receive more than 50% of international students from around the world. The quantitative indicator of the degree of internationalization of higher education is the share of foreign students. Therefore, within the countries of the Organisation for Economic Co-operation and Development (OECD), 6% of students, and within the European Union 8%, who graduated in 2014, were foreign students. More than half (53%) of foreign students were from Asia. The leader in the number of citizens studying abroad is China, followed by India and Germany (OECD 2016).

Increasing global demand for higher education, reducing transport and communication costs, and internationalizing the labor market are powerful incentives for study abroad. The number of international students in the world is steadily increasing. Between 2005 and 2012, their number increased by 50% (OECD 2015). At the same time, the share of foreign students differs greatly in specific countries. Currently, Luxembourg is the leader, where this indicator reaches 44%. On the contrary, in Korea, Poland, and Spain, the share of foreign students does not exceed 2%.

Russian Federation is also attempting to board this train and to broaden and diversify its offer of educational services for foreign students. This is, however, a long-term process that requires many time, efforts, and investments, as well as social and governmental support. Many factors can be considered and taken into account. Nevertheless, Russia has many interesting spheres where it has novel knowledge and know-how and where it can offer interesting study programs. One of these areas might be digital economy, the use of ICT, energy economics and policy, and related issues (Lisin et al. 2014; Mostenska 2015).

3 Factors Influencing Student's Choice of Country and University of Study

Attraction of foreign students in national universities allows to integrate the National Educational System into a unified international higher education environment. However, if there is a worldwide trend toward an increase in the share of foreign students studying abroad, it is necessary to understand the factors that determine students' choice of the country and the university of study. According to experts, the criteria for this choice are the language of instruction, the quality of educational programs, costs, migration policy, and others (OECD 2016). The framework of this paper does not allow us to consider in detail all the abovementioned factors, so we will focus only on one of them – the language of instruction.

Countries with the most widely spoken languages such as English, French, German, Russian, and Spanish could be the most attractive for foreign students. Territorial proximity, which allows significantly reduced transport and communication costs, is also important. For example, students from Belgium, France, and Germany choose universities in Luxembourg. Currently, Luxembourg is the world

leader in the share of foreign students, where this indicator reaches 44%. Fifty-seven percent of foreign students in the Czech Republic are from Slovakia. In the OECD, more than 60% of students who chose the Czech Republic, Japan, and Poland as their country of study came from border states (OECD 2016). The high importance of the language factor is confirmed by the analysis of foreign students' contingent structure studying in Russia. About half of foreign students are from the CIS countries, mostly Russian-speaking or ethnic Russians. The share of Russia in the international flow of foreign students is formed mainly at the expense of Russian-speaking students from the CIS countries: Kazakhstan, Belarus, and Turkmenistan.

Currently, English-speaking countries are leaders in the admission of students (by the ratio of foreign and national students). So Australia, South Africa, New Zealand, the United Kingdom, and the United States have the highest ratio of foreign and national students. The development of educational programs in English, in countries where English is not the official language, has become widespread in the world.

4 Analysis of the Educational Programs in English in Leading Russian Universities

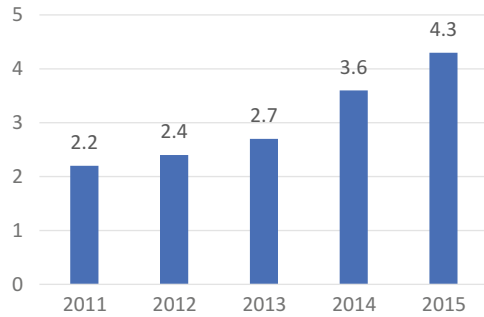
In recent years, Russia has faced the task of integration into the global educational environment by involving Russian universities in the processes of internationalization and globalization. In this regard, the analysis of the experience of leading Russian universities in the use of various integration tools becomes particularly relevant (Gulicheva and Osipova 2017).

Currently, the share of Russian students studying abroad does not exceed 1% of their total number, and the share of foreign students studying in Russia is just over 4% (see Fig. 1).

In recent years, there has been a tendency to increase the attractiveness of Russian higher education for foreigners. At present, Russia is increasing the scale and pace of its participation in the process of internationalization of higher education. So, in 2015, about 240,000 foreign students from 150 countries studied in Russia. At the same time, the federal budget of Russia funded higher education for about 75,000 foreign students. More than 400 of almost 900 Russian universities were involved in this process (Garusova and Piginshcheva 2015).

However, despite the presence of positive trends, the above quantitative characteristics indicate a low degree of internationalization of Russian universities and low involvement of Russian students in exchange processes according to the criterion of student academic mobility (Stukalova et al. 2015). Even positions of leading Russian universities are far from the world leaders. Language barriers are one of the major factors constraining inflow of foreign students to Russia. This conclusion is also confirmed by the opinion of the OECD specialists who, in their annual report of

Fig. 1 The share of foreign students enrolled in higher education in Russia (Source: own compilations)



2013, classified Russia as a part of a group of countries where universities offer very few educational programs in English (OECD 2013).

Russian Federation's integration into the world global educational community and space, significant changes in politics, economics, culture, mixing and migration of peoples and languages, and changing relations between countries led to an active increase of the demand for studying foreign languages and obtaining a higher foreign education in a foreign language. In this regard, leading Russian universities are actively developing joint educational programs, as well as educational programs in English.

The conditions of implementation and the factors influencing student's choice of educational programs in English were studied on the example of Plekhanov Russian University. The university has a 110-year history and steadily holds a leading position in national academic rankings and is also included into the QS World University Ranking (position 701+) and in the top 100 rating of QS BRICS. The university traditionally pays much attention to creating conditions for the implementation of academic mobility programs for students. Plekhanov Russian University, first in Russia, has been implementing student exchange programs with European universities for over 25 years through the implementation of educational programs in English.

At the first stage, a comparative analysis on the offer of educational programs in English by Plekhanov Russian University and its main competitors such as higher educational institutions of the socioeconomic field of study was conducted (see Table 1).

Comparative analysis of the educational programs in English offered by leading Russian universities in 2016 made it possible to conclude that among the competitors, only HSE demonstrates higher rates of academic mobility. At the second stage of the study, an analysis of the availability of methodological support for programs in English, of the contingent of students and its structure and the contingent of teachers involved in programs, and of some other parameters was conducted. In 2016, the university provided programs in English in two fields: "economics" and "management" at bachelor's and master's levels with an absolute prevalence of master's programs, which corresponds to the worldwide trend. The contingent of students of programs in English is a bit more than 10% of the contingent of full-time students of the university. The share of foreign students in the structure of the

Table 1 Comparative analysis of educational programs in English offered by leading Russian universities in 2016

Indicators	RPU	HSE	FU	RANEPA	RFTA
The share of foreign students in the total number of students, %	5.85	7.37	5.78	4.13	2.42
Number of foreign teachers, people	18	142	5	18	0
Number of bachelor's English language programs announced for the 2017 set, units	4	2	1	1	0
The number of master's English language programs announced for the set of 2017, units	5	21	2	7	0
Number of double degree programs	17	47	0	2	2
The university's position in the QS rating	701+	401–420	–	–	–

Source: Own compilations

contingent does not exceed 5%, while among them, there are practically no immigrants from the CIS countries. A questionnaire developed by the authors allowed to obtain some quantitative characteristics of programs in English. More than one-third of the bachelor contingent students and 10% of master's were interviewed. It makes the sample completely representative. The following conclusions were made as a result of the analysis of students' profiles. The quality of teaching in the programs in English at master's level is higher than at bachelor's level. This is evidenced by higher rates of satisfaction of master's students. Forty-two percent of the master's students are completely satisfied with the chosen educational program, and 90% of the master's students are fully or generally satisfied. At the same time, only 16% of bachelor's students are fully satisfied with the chosen program, and 82% are generally satisfied or fully satisfied. Students of both levels note that two-thirds of them have no problems with mastering the educational program.

In the third stage, a qualitative study, using the focus group method, was conducted. It allowed to deeply understand and study the reasons for students' choice of educational programs in English. Ten students (five bachelor's and five master's) participated in the focus group study. Interviewing the focus group gave an answer to the question: "Why did the students choose this program?" The opportunity to acquire skills of intercultural and intercountry communication for further employment in transnational companies, including abroad, was the main motivation for students to choose the program. An additional motivation for Russian students was the potential for improving English language proficiency.

5 Conclusions

According to some experts, the criteria for the student's choice of the country and the university of study are the language of study, the quality of educational programs, cost of training, and immigration policy. Author's hypothesis that the language of teaching is one of the important factors determining the choice of foreign students of the country and university of study was empirically proven.

Evaluation of the internationalization of higher education by the criterion of student academic mobility allowed to make a conclusion about the low degree of internationalization of Russian universities and the insufficient involvement of Russian students in exchange processes. In this regard, the question of internationalization and the attraction of foreign students for Russian universities remain very urgent.

Our comprehensive research allowed to prove that the leading Russian universities, strategically oriented toward integration into a global educational environment and included in the prestigious QS World University Ranking, consciously take into account the language factor in their activities. They actively develop joint educational programs, as well as educational programs in English.

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Part VI
Leadership for the Sustainable
Development of Business and Education:
Paradox or Necessity?

Information Systems on the Basis of Modern Information and Communication Technologies as a Tool for the Formation of Leadership Qualities



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Abstract The paper deals with the search for new mechanisms of formation and development of the human leadership skills in today's Russia. Proceeding from the theoretical analysis of key leadership skills as interpreted by different schools, the approaches to the formation thereof are described (leadership is only a manifestation of an inherited talent; a leader can be brought up by the relevant training or creation of certain situations). The social and cultural particularities of the phenomenon of leadership in Russia are discussed. The work presents commercial and authors' tools based on the modern information and communication technologies that allow forming and developing the human leadership skills. Advantages and disadvantages of using the Russian commercial software, iSpring Suite, are discussed, as well as those of the authors' information system for creating a virtual social educational environment with preset features and the authors' specialized social network in the Internet. The virtual social environments created are easily scalable and invariant as for their content, which opens up new opportunities in terms of fast adaptation of the content suggested to social and cultural particularities of a certain person as well as creation of individual upbringing paths. As the research methods, the analysis of secondary research data and own research results using the authors' developments is used.

1 Introduction

The recent serious change in Russia's social and economic life (Sushko et al. 2016) makes one reappraise the norms and values of leadership. As a result of the past reforms, the level of requirements for the system of management and style and methods of managing the organizations has changed dramatically (Pronchev et al. 2016). A correctly used leadership potential can grant new competitive advantages

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for a company. With regard to this, obviously, the company needs the manager's leadership skills not only during economic crises but also in the economic upturns.

A leader is considered to be a person having the greatest authority and being able to lead other people after themselves. The leader is advanced by himself, thanks to his personal qualities. However, a potential leader has to first of all find leadership skills in himself and, second, to develop them as much as possible and bring them to a brand new level.

The social and economic change that occurred in Russia was accompanied by the rapid development of information and communication technologies that have permeated all spheres of the human life. The information and communication technologies allow creating new virtual social environments with preset properties (Pronchev 2012). Previously the authors reported about the efficient use of such virtual social environments as a tool of interaction of the civil society and the state (Muraviev et al. 2013; Pronchev et al. 2016), in education and upbringing (Pronchev and Kuzmenkov 2013), and in social work with people having health limitations (Goncharova and Pronchev 2015).

According to the authors, the modern information and communication technologies also can help form and develop the human leadership skills. In particular, for the purposes, virtual social environments with gamification elements are currently used. Gamification (from the English word game) means learning with elements of the game. Coaching games influence the human mind. Based on competition, they show the players the level of their preparation, give tips on ways for self-improvement, and thus encourage their cognitive activity. Upbringing with the game elements is based on classic principles of didactics: interactivity, informative feedback, and internal motivation. Such games contribute to the upbringing of a self-developing and self-fulfilling personality. The means of development of cognitive activity are games with ready-made rules. The formation and development of a future leader's experience are far not equal in value to encountering the real practice, but it allows polishing specific behavioral competencies. The simulation gaming activity allows training an individual's leadership skills in certain situations.

The process of upbringing of the future leaders in the form of a game involves something more than merely encouragement or approval; it creates definite situations in which the above qualities surface.

In this paper, examples of information systems based on the modern information and communication technologies will be presented that can form and develop the human leadership skills.

2 Literature Review

Clearly, some signs of leadership can be observed even in the animal world. For social animals, it is characteristic to single out an alpha male (a leader) from the general mass, among the functions of which is supporting the internal hierarchy and his own dominant position.

Bogardus (1934), a sociologist, pointed out the qualities a leader has to possess: a sense for humor, tact, an ability to foresee and to attract attention to oneself, likeability, a readiness for undertaking responsibility, and others. He believed that it is one's mind, energy, and character that make one a leader.

Stogdill (1974) named so much as 124 features of leadership.

Parkinson (1958) emphasized the main elements of leadership:

1. Imagination
2. Knowledge that gives confidence
3. Talent
4. Decisiveness
5. Harshness
6. Attraction (a leader is the central figure after which all others strain)

Alongside with the qualities listed above, a leader has to be able to speak brightly and to listen to others. The art of communication is a compulsory feature of a leader.

Leadership skills matter first and foremost in management. "If you want to exercise influence over other people, you must be a person with a stimulating and encouraging effect on other people," Karl Marx wrote in his "Economic and philosophic manuscripts of 1844" (Marx 1974).

Robert Dilts, Anne Deering, and Julian Russell (2002) outline the following key qualities of a leader as a manager:

1. Vision – This is expressed in foreseeing the future and the prospects.
2. Motivation, which is expressed by the leader stimulating both himself and his team, is an ability to inspire and encourage others to act.
3. Recognition of subtle signals, which is found out by a fast response to any change.
4. Flexibility of behavior.

Francis Galton (1869) thought leadership to be a manifestation of a natural, hereditary talent.

Later, it was the situation theory of leadership by Fred Edward Fiedler (Fiedler 1958, 1967) that became popular; it took into account the situation in which leadership skills were expressed. One person is a leader in a battle where one has to defend one's rights by force. Another one is a leader in studies, in science, or a leader in the family where he is looked up to by everyone.

Some researchers believe every person has a leadership potential. The process of unlocking it starts with an ability to control oneself, one's condition, and one's motivation. This process is called the "internal leadership" as an expression of one's internal power, confidence, and responsibility for one's actions. A leader never stops in his development.

Obviously, a leader of a group whose authority is recognized without reservation by other members of the group who are prepared to follow him brings change into the behavior of the group members and their feelings and interpersonal relations. The group recognizes the leader's right to make responsible decisions in situations that are significant for it.

It can be stated that leadership is an ability to lead people after oneself for achieving certain goals. R. Stogdill singled out the following main functions of leadership (Stogdill 1974):

1. Center of the group interests (a leader determines the group structure, ideology, and interests; he holds the individual rule)
2. The art of achieving agreement (a leader works for agreement between the people managed by him; he can settle conflicts)
3. Acting and behaving (leader's actions for managing and coordinating the work of the group: delegating the authorities, stimulating the group members, motivation aimed at the results achievement)
4. A tool for achieving a goal or result (a leader's efficiency is associated with achieving results and meeting the needs of all members of the group)
5. Interaction (a leader creates such interpersonal relations when group members fulfill their tasks exactly because they want to themselves)
6. An ability to persuade (a leader controls using persuasion, encouragement, and inducing to act by the force of his own example, which is inherent in the informal leaders to a greater extent)
7. Exercising the influence (a leader analyzes the interpersonal relations and influences the activity of an organized group)
8. Power relations (a leader's ability to dominate others and overcome the resistance of the subordinates)
9. Differentiation of roles (every participant of the leadership-subordination relations plays a certain role, i.e., leadership can be viewed as role differentiation)
10. Building up the group structure (a leader seeks to structure the group in such a way as to legitimate his leader's status)

It should be noted that the above theories describe the phenomenon of leadership in a general and quite "idealized" way only. In certain cases, just some of the described qualities may be the actual leaders' traits. The authors believe even "characteristic" leadership skills depend on many factors, the anthropological one included.

3 Research Methods

The objective of this research was the search for new mechanisms for forming and developing the human leadership skills in today's Russia.

The main tasks of the research were the following:

1. The theoretical analysis of key leadership skills from the standpoints of various schools, generalization of approaches, to the formation of leadership skills (leadership is only a manifestation of an inherited talent; a leader can be brought up by the relevant training or creation of certain situations)

2. Studying the social and cultural particularities of the phenomenon of leadership in the Russian Federation
3. Singling out the human-specific features that can be influenced from the viewpoint of the formation and development of leadership skills in Russia
4. The analysis of techniques for the formation and development of leadership skills used in practice
5. Creating a new information system with preset properties for forming and developing the human leadership skills
6. Creating a specialized virtual social network in the Internet for forming and developing the human leadership skills

The authors intended to provide an opportunity of testing for the specific traits of character and the occupation choice appropriateness within the information system created: Jung personality test, Eysenck personality test, an attention test, a distractibility test, and a vocational aptitude test. Alongside role-based interaction between the participants, the information system had to include role-play games containing multimedia information to motivate the development of certain leadership skills.

As compared to the information system, the social network was created with the underlying idea to only partially regulate the behavior of the virtual social environment participants. Consequently, the participants were expected to demonstrate the creative initiative and their own individuality to a greater extent.

As the research methods, the analysis of secondary research data as well as that of the own studies using the authors' information systems with the preset properties was used in the work.

In order to solve the tasks associated with analyzing the key leadership skills, the methods of studying the theoretical sources were applied: the comparative, the systemic, and the structural method and the logic and semantic analysis.

The comparative method was used for finding out the shared and the difference of the sources describing the standpoints of various schools on the questions of forming and developing the human leadership skills.

The use of the systemic and structural method allowed identifying and more fully analyzing the mutual influence of the sources describing the standpoints of various schools on the questions of forming and developing the human leadership skills.

The logic and semantic analysis was applied for searching for the correct definition of the human-specific features that can be influenced from the viewpoint of the formation and development of leadership skills.

4 Social and Cultural Particularities of Leadership in Russia

It should be noted that the fifth feature of leadership singled out by Parkinson, "harshness," is characteristic for the Western civilization but is only partially applicable, e.g., to the Russian leaders – for them, traditionally, it is mercy that

prevails over harshness. As pointed out by Klyuchevsky (1987), “since the Old Russian times, beneficence has been in the traditions of our people. The codex consisted of three sciences, or constructions: they were the spiritual construction – teaching about the spiritual duty, or the cause of salvation of the soul; the worldly construction – a science about civil community life; and the household construction – a science about the thrifty housekeeping. It was acquisition of these three subjects that made up the task of the general education in the Ancient Rus. It was considered natural and consistent to help a destitute, a poor, to share bread with them, to give shelter to a homeless, to protect the old age and the infirmity, to treat a sick person or a crippled, and to protect an offended one” (Klyuchevsky 1987: 125). In many Russian cadet corps and lyceums, days of charity were organized, as the cadets and lyceum students coming from the rich and noble families (counts, princes, etc.) served the beggars. It is no mere chance that the Russian proverb reads “There is no good name without good deeds.” Klyuchevsky (1987) emphasized the fact that “in Russia, the church united into one society the people of various fortunes either for a purpose, or for a secret destination, or in the name of the feeling of compassion and mercy” (Klyuchevsky 1987: 126).

In the Russian leaders, the readiness for a feat and self-sacrifice have been traditionally brought up since childhood, which is quite alien to the Western culture.

According to the surveys conducted in the Russian business community, 58.8% of the questioned ones do not agree with the statement that one has to be born a leader (Avramenko 2010). They more frequently consider the ability to set oneself among one’s peers, professional competencies and authority to be the success factors of an individual. As the respondents questioned believe, the modern leader is distinguished by decisiveness, organizer skills, a power of persuasion, an ability to clearly word a task for the team, as well as readiness to perceive and introduce the innovation approaches (Avramenko 2010).

The survey participants think the leader’s mission is to change the world around him (42.5% of the respondents) and to inspire others (51.9%). According to them, the feature of leaders consists in their sticking to a commenced thing until it is done (31.5%) and having their followers (47.4%) (Avramenko 2010).

5 Commercial iSpring Suite Software

In the Russian market, there are currently a number of commercial software products designed for organizing a virtual social environment promoting the development of leadership skills.

For example, Suite 8 software product by the Russian company iSpring helps develop games and quests with polls, audio, and video information motivating the employees’ development (Monakhov and Monakhova 2016). iSpring Suite allows creating digital courses in PowerPoint with the subsequent saving into a Web format. Owing to the support of HTML5, the materials developed in iSpring Suite are viewable in any devices – computers, laptops, tablet PCs, and smartphones with

Android, iOS, and Windows operating systems. The software ensures the support of all PowerPoint functions (animations, triggers, hyperlinks, transition effects, fonts, styles, themes, and SmartArt objects). Moreover, iSpring Suite expands the opportunities of PowerPoint and offers a set of special functions for digital learning.

The TalkMaster dialogue editor in iSpring Suite allows creating dialogue simulators consisting of a set of scenes each including a question and answer option for various upbringing tasks. This is an additional tool for personified upbringing of the future leaders; it allows creating custom applications; using the graphics, audio, and video materials; and integrating the selected or developed materials into a website or blog. TalkMaster uses the branching scenarios for training the communication skills that are so important for the future leaders.

Examples of educational materials using iSpring Suite for creating information systems that can form and develop the human leadership skills can be found in the 2016 work by N.V. Monakhov and G.A. Monakhova.

It should be noted that currently in Russia, there are noncommercial analogs of iSpring Suite. Their functional capacities are more modest as compared to the commercial software, yet they have some specific functions giving the edge over the paid software in certain situations (Pronchev et al. 2015a).

6 Virtual Social Environments with Preset Properties

Previously the authors reported about the creation and successful testing out of a new information system for building a virtual educational environment for comprehensive school (Pronchev and Kuzmenkov 2013; Pronchev et al. 2014). Later the information system was reworked to be used in forming and developing the human leadership skills.

The information system was developed using the technology of Web applications. The following technologies were employed (Pronchev and Kuzmenkov 2013): XHTML (Extensible Hypertext Markup Language) for marking up the text in the page, CSS (Cascading Style Sheets) for describing the appearance of the system, JavaScript (a script-based programming language) for ensuring the interactivity of the system and the security of the data input into the system, PHP (Hypertext Preprocessor) for writing the entire computing part of the information system and for working with the database, and MySQL (a freely distributed database management system) for storing the logbooks, tests, and the results of testing.

The information system developed is easily scalable and invariant as for its content. This has enabled the authors to create virtual social environments with preset properties by changing the content as appropriate.

In the information system, an opportunity of conducting a number of tests for identifying the specific traits of character and the occupation choice appropriateness is provided: Jung personality test, Eysenck personality test, an attention test, a distractibility test, and a vocational aptitude test.

Alongside role-based interaction between the participants working with the information system, they were offered games containing multimedia information to motivate the development of certain leadership skills.

Later the authors created a specialized virtual social network in the Internet (Pronchev et al. 2015a; Pronchev et al. 2015b) that was also used for forming and developing the human leadership skills. The social network was also based on the Web applications technology – on the BSD distribution system software. The social network is easily scalable and invariant as for its content, and it contains authors' game elements. As compared to the information system, the social network does not regulate the behavior of the virtual social environment participants completely. As a consequence, here the participants displayed their creative initiative and individuality to a greater extent.

7 Conclusion

The social and economic change of the recent decades taking place in Russia has brought about the necessity of searching for the new mechanisms for forming and developing the leadership skills in the Russian citizens. Rapid development of the information and communication technologies makes new tools available for creating the educational social environments with preset properties that can influence the human leadership skills in a specific way.

The phenomenon of leadership and leadership skills has been theoretically worked out for a few centuries already. And though the specific character of leadership changes as the era does and depends on the social and cultural particularities, the experience accumulated allows identifying the main directions for influencing the people.

The paper presents commercial and authors' tools based on the modern information and communication technologies that allow forming and developing the human leadership skills.

The process of formation of the human leadership skills is fairly complicated and depends on a specific person's social and cultural particularities. So, using one and the same scenario for influencing different people may well yield different results. Hence, the authors believe it is more efficient to use the tools based on the modern information technologies as they feature greater flexibility and performance.

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Effectiveness of Assessment Methodology for Forecasting Sustainable Development of Russian Regions



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Abstract The article addresses the following issues: development of the methods for calculating the effectiveness of the investment process, taking into account the delay in putting the assets into operation; creation of a program for the development of a subsidized region and determination of the necessary volume of investment in the innovative development of industries by the method of simulation modeling; building of macroeconomic models, taking into account the innovative component for estimating and forecasting the GDP of the Russian Federation and the GRP of Federal Regions and the Russian Federation regions on the basis of multiplicative production functions, considering the delay in putting the assets into operation; economic analysis of the statistical estimates of the parameters of the built models; and the most widespread R. Solow's model in which the rate of the labor force size growth is an exogenous magnitude, the technological level is unchanged, and the return from the two factors of production – labor and capital – is constant. An algorithm for choosing an optimal macroeconomic model for a particular region has been developed. It is planned to build macroeconomic models, taking into account the innovative component for estimating and forecasting the GDP of the Russian Federation and GRP over Federal Regions and the Russian Federation regions on the basis of multiplicative production functions, taking into consideration the delay in putting the assets into operation; it is also planned to analyze the statistical estimates of the built models.

1 Introduction

For improving the efficiency of regional economy management, economic and mathematical modeling and forecasting of its sustainable development is of great importance; it allows taking economically justified decisions contributing to

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building optimal economic strategies of management (Kulalaeva et al. 2016a, b; Sadovin and Kokotkina 2014).

The existing models give a considerable error in the calculation, which does not allow choosing the best option for investing, especially for innovation projects. In taking a decision about investing, accuracy of the calculations is very important, which largely depends on the intensity of commissioning the equipment and new technologies. The delay in putting the assets into operation is very significant for industrial enterprises whose development is given great attention by the country leaders and some regional administrations.

It is planned to make a nonlinear multiple regression equation for the statistical estimation of the gross domestic product and gross regional product in the form of a multiplicative production function, taking into account the innovation component.

2 Literature Review

Models based on the production function constitute an independent group of single-loop models of economic growth. The most widespread model is that by Solow (1957) in which the rate of increase in the labor force size is an exogenous value, the technological level is unchanged, and the return on the two factors of production – labor and capital – is constant. A more complex model exogenously takes into consideration technological progress. Models of the next level of complexity take into account natural resources (Sadovin and Koroleva 2010; Kulalaeva 2016a; Kanyugin and Kulalaeva 2016). Nelson (1989) and Enke (1945) considered models in which the rate of the increase in the labor force size is the function of the level of labor productivity. Hahn and Matthews (1964) considered models with endogenous rate of the increase of labor force, taking into account technological progress. In the Phelps-Simon-Steinmann model (DeGregori 2012), the dynamics of the productivity level is regarded as the function of the labor force size and the technological level achieved. Simon J. reviewed the so-called residual model (DeGregori 2012), which assesses the effect of the labor force growth on the so-called non-shared ART system through the unexplained part of the economic growth remaining after assessing the influence of capital and labor. One of the most important applications of these models is the analysis of the relationship between demographic and economic cycles. For example, these issues were addressed in the Michel-Pestieau model (Michel and Pestieau 1993). Among the domestic researchers, Kolemavev (2005) should be noted. He considered Solow's model, taking into account the delay in putting the assets into operation, excluding dynamics of technological progress, and formulated the corresponding problem of the optimal management of the accumulation rate in Solow's model.

3 Research Methods

Accumulated labor in the form of production assets (capital K) and real labor (live L) are most often regarded as resources at the macro-level, and gross output is viewed as a function. The capital and gross output are measured quantitatively by cost indicators (current and comparable) and the labor, by physical indicators, using official statistics data. Then the macroeconomics is modeled with the following nonlinear macroeconomic PF of the form

$$Y = F(K, L) \quad (1)$$

The simplest production function reflecting the influence of two factors of production, labor force and capital, is expressed as the Cobb-Douglas function $Y = \alpha_0 K^{\alpha_1} L^{1-\alpha_1}$, where the parameters $\alpha_0 > 0$, $\alpha_1 > 0$, and α_0 is a coefficient, characterizing the productivity level. A more complex model is represented by the multiplicative production function of the form $Y = \alpha_0 K^{\alpha_1} L^{\alpha_2}$, where the parameters $\alpha_1 > 0$, $\alpha_2 > 0$.

Frequently, the production function may also include the description of the technological progress (TP) as a function of time $A(t)$. The TP influences either the effectiveness of a single resource (in this case the output grows at a fixed physical volume of this factor) or the aggregate output. In these cases we have

$$Y_t = F(K_t, L_t \cdot A(t)) \quad (2)$$

capital productivity growth: capital-saving TP or TP according to Harrod

$$Y_t = F(K_t \cdot A(t), L_t) \quad (3)$$

labor productivity growth: labor-saving TP or TP according to Solow

$$Y_t = F(K_t, L_t) \cdot A(t) \quad (4)$$

the growth of aggregate productivity of factors: a neutral TP or TP according to Hicks

If the rate of the neutral TP γ is constant, then $A(t) = e^{\gamma \cdot t}$. Then, for example, the multiplicative PF that exogenously takes into account technological progress can be represented as

$$Y_t = e^{\gamma t} F(K_t, L_t) = \alpha_0 e^{\gamma t} K_t^{\alpha_1} L_t^{\alpha_2}, \quad (5)$$

where $e^{\gamma t}$ takes into account the impact of scientific and technological progress (STP), $\gamma > 0$ characterizes the rate of output growth under the influence of STP, α_1 is equal to output elasticity with respect to fixed assets, and α_2 is equal to output elasticity with respect to labor. If $\alpha_1 > \alpha_2$, then there is a labor-saving (intensive) growth, otherwise, a fund-saving (extensive) growth.

Usually, in the transition to n -dimensional ($n > 2$) PF, as an additional argument (resource), amounts of the used natural resources R are introduced; then the corresponding production function that takes into account the influence of natural resources as well can have the following form:

$$Y_t = e^{\gamma t} F(K_t, L_t) = \alpha_0 e^{\gamma t} K_t^{\alpha_1} L_t^{\alpha_2} R^{\alpha_3}. \quad (6)$$

The multiplicative PF was first estimated by Cobb and Douglas in 1928 for the US economy.

Based on the data on the economy of the USSR, for example, the following production functions were calculated:

(a) For the USSR for 1960–1985 (Kolemayev 2005):

$Y = 1,022 K^{0,5382} L^{0,4618}$ – not taking into consideration technological progress
 $Y = 1,038 \cdot K^{0,97492} L^{0,2399} e^{0,0294 \cdot t}$ – taking into consideration technical progress

(b) For the Russian Federation for 1960–1994:

$$Y = 0,931 K^{0,539} L^{0,594}.$$

In studying economic growth factors, two kinds are identified: the extensive growth factors due to increasing the resource cost, i.e., increasing the production scale and the intensive growth factors due to increasing the effective use of resources (Kulalaeva et al. 2016b). To single out these factors by means of PF, turn to relative (dimensionless) indicators, since the problem of commensuration of the present and past labor in a satisfactory way has not yet been solved in the economic theory.

Suppose that in some base year PF has the form

$$Y_0 = \alpha_0 K_0^{\alpha_1} L_0^{\alpha_2}. \quad (7)$$

Then the transition from the multiplicative PF to the dimensionless form can be carried out as follows:

$$\frac{Y}{Y_0} = \frac{\alpha_0 K^{\alpha_1} L^{\alpha_2}}{\alpha_0 K_0^{\alpha_1} L_0^{\alpha_2}} = \left(\frac{K}{K_0}\right)^{\alpha_1} \left(\frac{L}{L_0}\right)^{\alpha_2} \quad (8)$$

If we introduce the notation

$$\tilde{Y} = \frac{Y}{Y_0}, \tilde{K} = \frac{K}{K_0}, \tilde{L} = \frac{L}{L_0}, \quad (9)$$

PF will take the form

$$\tilde{Y} = \tilde{K}^{\alpha_1} \tilde{L}^{\alpha_2}. \quad (10)$$

From a dimensionless form, one can easily go over to a multiplicative PF of the form

$$Y = \frac{Y_0}{K_0^{\alpha_1} L_0^{\alpha_2}} K^{\alpha_1} L^{\alpha_2} = \alpha_0 K^{\alpha_1} L^{\alpha_2}, \tag{11}$$

where the coefficient

$$\alpha_0 = \frac{Y_0}{K_0^{\alpha_1} L_0^{\alpha_2}} \tag{12}$$

commensurates the resources with the output.

Now define the so-called generalized economic efficiency indicator determining beforehand two particular efficiency indicators:

$\frac{\tilde{A}_K \equiv \tilde{Y}}{\tilde{K}}$ is output per unit of capital funds and $\frac{\tilde{A}_L \equiv \tilde{Y}}{L}$ is labor productivity.

Then the generalized indicator of economic efficiency is equal to the geometric mean of particular efficiency indicators.

$$E = \sqrt[{\alpha_1 + \alpha_2}]{\tilde{A}_K^{\alpha_1} \cdot \tilde{A}_L^{\alpha_2}} = \tilde{A}_K^\alpha \cdot \tilde{A}_L^{1-\alpha}, \tag{13}$$

where

$$\alpha = \frac{\alpha_1}{\alpha_1 + \alpha_2} \quad \text{and} \quad \alpha = \frac{\alpha_2}{\alpha_1 + \alpha_2}.$$

As the scale of production M manifests itself in the amount of the resource expended, then

$$M = \tilde{K}^\alpha \cdot \tilde{Y}^{1-\alpha}, \tag{14}$$

and the total output will be calculated as a product of efficiency E and production scale M :

$$\tilde{Y} = E \cdot M. \tag{15}$$

Let Y_t , K_t , and L_t be the corresponding volumes of production and resources at the time moment t .

Moving to the next time moment $(t+1)$, we can consider the rate of the output growth $^{y_{t+1}}/_{y_t}$, as well, namely:

$$\frac{Y_{t+1}}{Y_t} = \left(\frac{K_{t+1}}{K_t}\right)^{\alpha_1} \cdot \left(\frac{L_{t+1}}{L_t}\right)^{\alpha_2}, \tag{16}$$

or

$$\left(\frac{Y_{t+1}}{Y_t}\right)^{\frac{1}{\alpha_1+\alpha_2}} = \left(\frac{K_{t+1}}{K_t}\right)^\alpha \cdot \left(\frac{L_{t+1}}{L_t}\right)^{1-\alpha}, \quad (17)$$

where α and $1-\alpha$ are relative elasticities of production factors. From the latter equation, it follows that if $\alpha_1 + \alpha_2 > 1$, the output grows faster than factors do on average; and at $\alpha_1 + \alpha_2 < 1$, slower. Indeed, for example, at $\alpha_1 + \alpha_2 > 1$:

$$\frac{Y_{t+1}}{Y_t} > \left(\frac{Y_{t+1}}{Y_t}\right)^{\frac{1}{\alpha_1+\alpha_2}} = \left(\frac{K_{t+1}}{K_t}\right)^\alpha \cdot \left(\frac{L_{t+1}}{L_t}\right)^{1-\alpha}, \quad (18)$$

that is, the output growth rate is higher than the average factor growth rate. Thus, if production elasticity $\alpha_1 + \alpha_2 > 1$, then PF describes the growing economy (Sadovin and Koroleva 2010).

Now consider the growth rate of production indicators in a discrete form:

$$y_t = \frac{Y_{t+1} - Y_t}{Y_t}, k_t = \frac{K_{t+1} - K_t}{K_t}, l_t = \frac{L_{t+1} - L_t}{L_t} \quad (19)$$

and in a continuous form:

$$y_t = \frac{Y'_t}{Y_t}, k_t = \frac{K'_t}{K_t}, l_t = \frac{L'_t}{L_t}. \quad (20)$$

Then PF of the form $Y = F(K, L)$ in volume writing can be presented in the so-called rate writing:

$$y = f(k, l). \quad (21)$$

Consider, for example, the multiplicative PF of the form

$$Y_t = e^{\gamma t} F(K_t, L_t) = \alpha_0 e^{\gamma t} K_t^{\alpha_1} L_t^{\alpha_2}, \quad (22)$$

where $e^{\gamma t}$ takes into account the influence of scientific and technological progress and $\gamma > 0$ characterizes the growth rate of production under the influence of STP. Take the logarithm of this function:

$$\ln Y_t = \ln \alpha_0 + \gamma t + \alpha_1 \ln K_t + \alpha_2 \ln L_t, \quad (23)$$

and differentiate with respect to t :

$$\frac{dY_t}{Y_t} = \gamma dt + \alpha_1 \frac{dK_t}{K_t} + \alpha_2 \frac{dL_t}{L_t}, \quad (24)$$

or

$$\frac{Y'_t}{Y_t} = \gamma + \alpha_1 \frac{K'_t}{K_t} + \alpha_2 \frac{L'_t}{L_t}. \quad (25)$$

Thus, to the multiplicative PF in volume indicators, there corresponds linear dependence of the continuous growth rate:

$$y_t = \gamma + \alpha_1 k_t + \alpha_2 l_t \quad (26)$$

If we consider the discrete growth rates, then, taking into consideration the approximate equality $\Delta Y_t \approx dY_t$, we obtain in this equation the approximate equality. That is, in the discrete case as well, to the volume PF, there corresponds a linear formula for linking the growth rates of indicators y , k , and l .

4 Results and Discussion

However, it should be noted that these formulas (equations) are equivalent only in the continuous case. Statistical estimation of the parameters of these equations uses discrete sample data. Therefore, it is incorrect to transfer the estimates $\widehat{\alpha}_1$, $\widehat{\alpha}_2$, $\widehat{\gamma}$ obtained, for example, for a nonlinear equation, to a linear equation, and vice versa. Even if these equations are estimated according to the same observation data, completely different values of the estimates may be obtained, with one of the obtained regression equations appearing to be significant and the other insignificant.

This means that one way of estimation (e.g., a nonlinear equation) may bring a significant statistical outcome, and the other (e.g., a linear equation) may not. Consequently, it is better to estimate both of these equations, and if close statistically significant results are obtained from them, this will confirm the correspondence of the estimated formula to the real relationship of the variables.

It should be noted that from the linear equation, it follows that the free term γ is the rate of neutral technological progress which is not related to the cost growth of labor l_t and capital k_t ; but it reflects the intensification of production on a macro-level.

When applying a linear equation to make practical calculations, it should be kept in mind that the parameter γ is built on a residual principle. In other words, it reflects the influence of all other factors except labor and capital on the output growth rate. This means that the given parameter characterizes also the influence of some other unaccounted factors on the output. However, for most macroeconomic processes, it is the technological progress that plays the main role among "other factors."

In the economic analysis of the built regression models of the form $Y = F(K, L)$, great importance is attached to the elasticity of the substitution of production factors (σ_K и σ_L), which for the multiplicative PF, for example, equal one.

In building these models, the value of fixed assets and the volume of GDP and GRP are estimated at comparable prices, considering consumer price index of the

respective region. A statistical analysis of the accuracy of the built models and the selection of the most appropriate models is carried out.

Solow's (1957) dynamic macroeconomic models are built without taking into account the delay in putting the assets into operation.

The following variables were used as the basic characteristics of the model:

1. Gross regional product – Y
2. Value of fixed production assets – K
3. Population size – L_1
4. Economically active population size – L_2
5. The size of labor force employed in the economy – L_3

For each region, the models were built in current and comparable prices (taking into account the consumer price index) in the form of the Cobb-Douglas production function $Y = \alpha_0 K^\alpha L_1^{1-\alpha}$; the Cobb-Douglas production function, taking into consideration the technological progress $Y = \alpha_0 K^\alpha L_1^{1-\alpha} e^{\gamma \cdot t}$; and the multiplicative production function $Y = \alpha_0 K^{\alpha_1} L_2^{\alpha_2}$, taking into account the technological progress $Y = \alpha_0 K^{\alpha_1} L_2^{\alpha_2} e^{\gamma \cdot t}$. For each function, three kinds of labor force were considered: L_1 , L_2 , and L_3 . Thus, 360 models were built for the Volga Federal Region as a whole and for all of its regions.

It is assumed that the process of investing and putting the assets into operation is stationary and subject to an exponential distribution. Estimations of the accuracy of the built models will allow choosing the most adequate values of the parameter that characterize the rate of the investment development, which will allow building the corresponding rating of regions (Sadovin and Koroleva 2010).

On the basis of the built models, algorithms of optimal management, using the maximum principle, are being developed. Optimal management of this system implying maximization of the usefulness of the current consumption is being considered.

5 Conclusion

The results of the conducted research, the development of an algorithm of selecting an optimal macroeconomic model for a particular region, and the construction of multiplicative production functions for analyzing gross domestic and gross regional products, taking into account the innovative component, will enable us (1) to make statistical forecasts of the main socioeconomic indicators of the regions, (2) to make a rating of regions by this component and by the rate of investment development, and (3) to offer an algorithm for an optimal management of the rate of accumulation (specific consumption) across the region (Tsaregorodtsev and Sayranova 2015).

At present Solow's (1957) macroeconomic models for the analysis and forecasting of gross regional product of the Republic of Mari El with and without taking into account the delay in putting the assets into operation have been built. The adequacy of the built models has been proven. There are preliminary calculations giving

reason to believe that the developed methods will be adequate both for other regions and for the whole country.

An algorithm for choosing an optimal macroeconomic model for a particular region has been developed (Kulalaeva et al. 2017).

It is planned to build macroeconomic models, taking into account the innovative component for estimating and forecasting the GDP of the Russian Federation and GRP over Federal Regions and the Russian Federation regions for economic and sustainable development of the subsidy regions.

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The Effect of the Fourth Industrial Revolution Economies and Management



Vladyslav Vlasov and Felicita Chromjaková

Abstract The fourth industrial era (or Industry 4.0) refers to the recent trend of massive data collection, analysis and communication with intense process automation. Massive studies have been conducted in this field, though with the main focus on technical details, hardware and software. There still remains a considerable gap in the analysis of potential effects of the Fourth Industrial Revolution on economies and management. According to recent studies, from 45% to 60% of jobs around the globe are at risk of being automated or computerised. Despite the fact the new jobs such as automation engineers, programmers, data analysts and others are being created, the economies would get significant amount of workforce lacking necessary qualifications. A casual model that shows the effect of the increasing automation on economies has been developed and discusses potential implications. The paper suggests that economies and organisations would have to adopt “Algorithmic Management” to remain competitive in the new digital environment.

1 Introduction

The world is now going through a technological revolution, often referred to as the Fourth Industrial Revolution, Industry 4.0 or Industrial Internet, that will radically change the way of living, working and communicating. The transformation is already taking place in all aspects of business, and it is yet to increase the pace as companies increasingly use robots in production lines or algorithms to optimise their logistics, manage inventory and carry out other core business functions. Technological advances are creating a new automation age in which ever-smarter and more flexible machines will be deployed on an ever-larger scale in the workplace. In reality, the process of automating tasks that are done by humans has been under way for centuries. What has changed is the pace and scope of what can be automated. It is

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a prospect that raises more questions than it answers. How will automation transform the workplace, and what is likely to be its impact both on productivity in the global economy and on employment? This paper looks at the implications for economies and management. It is important to understand potential influences of the change on economy and effectively manage it, adapt to it, be ready to embrace its benefits and to response to the negative sides.

2 The Current State of the Problem

Frey and Osborne (2017) analysed potential jobs at risk through estimating the probability of computerisation for about 700 occupations in the USA. The core outcome of their research is that almost 50% of US jobs are facing a high risk of being redundant as a result of computerisation. Frey and Osborne also add that robots will perform not only simple standardised actions, but sophisticated procedures as well. Bowles (2014) attempted to conduct a similar study in Europe and concluded that North European countries such as France, the UK, Sweden and Germany demonstrate highly identical situation as in the USA and would not be affected by computerisation as much as South European countries, where the range of affected workforce varies between 45% and 60%.

3 The Effect of Industry 4.0 on Economies and Management

Until now, the objective that manufacturers faced was how to solve a particular problem. In many cases, Industry 4.0 has resolved this problem. What has to be decided are the moral, ethical and legal consequences of solving the problem David (2015).

Referring to moral and ethical aspects, pessimistic forecast anticipates that “robotisation” of humanity would eliminate intuition and creativity in the process of decision-making and thus the outcome might be less beneficial Free Exchange (2017). Though it all still comes down to people, their principles and values that shape the automation initiatives around the globe that, in turn, may substantially increase inequality among people. The most advantages of the Fourth Industrial Revolution would be achieved by providers of intellectual capital among which are the technological innovators and investors (Research paper: Whitepaper – Industry 4.0 2017). Nowadays, the demand for manual workers has been replaced by highly skilled professionals and capital holders.

The first three industrial revolutions driven by technological progress have not fully eliminated human labour. Autor (2015) claims that the employment-to-population ratio rose during the twentieth century even as women moved from home to

market. In 2015 German manufacturing still supplied one in five jobs, despite a high level of automation (Marcolin et al. 2016). However, proponents of automation-employment interactions state that past experience cannot be taken as a base for anticipation of the effect of the transformation given by the Fourth Industrial Revolution. Appearance of significantly improved computing capabilities, robotics and artificial intelligence brings the possibility of automation to a completely different level not observed ever before.

MIT professors Brynjolfsson and McAfee (2012) claim that current rapid technological transformation is eliminating jobs at a faster rate than new ones are created. Technology development has a direct effect on productivity; one creates higher value for a given input. It can also be considered as an indicator of progress. In the post-World War II years, level of employment grew along with productivity improvement. Companies produced more value from their employees, the economy was getting richer, and it triggered more business activity resulting in creation of more jobs. On the edge of twenty-first century though people and organisation were no longer managing to keep up with the pace of technological advances, the unemployment was growing at a faster pace.

In general, a causal model is a model that depicts causal aspects of a system (Pearl 2009). The following causal model shows the effect of increasing automation on the economy. In this model, the arrows represent causal effects, i.e. A causes B (all other factors being ignored). The positive sign signifies that an increase in one factor will cause an increase in the other. There is a strong positive loop ACEJHA, which one could classify as the “normal” situation. This is a positive reinforcing loop, where employment provides purchasing power to the workers who can then use that to purchase goods, i.e. increase sales and satisfy demand. This then increases the employment of the worker. This has been the post-war trend where, in general, demand and the work package of the employee have risen. There were increases in automation, but these have resulted in minor changes to employment, and overall employment has been steady. The anticipated increase in automation and its effect on what was previously regarded as safe employment (such as lawyers, drivers, etc.) will have two effects. It will create the negative loop ABCEJKHA which will decrease employment, but at the same time this will be compensated by the positive loop ABDGFHA which can stimulate growth. But this will now be for products purchased by an elite few and thus may take different forms than before. The efficiency of the robots will mean that productivity can be maintained (without workers) and thus GNP will still increase. We have a novel situation where GNP is increasing as purchasing power of most of the population is decreasing. This may create a two-layer society of haves and have-nots where the latter will be employed to service the former. This is shown in the positive loop ABDGFIKJHA (Fig. 1).

To prevent this occurrence, some other means must be devised to compensate for the link ACEJ. This is termed “alternative income” creating a link FLME which gives the positive link ABDGFLMEJHA. There has been much discussion about what form this “alternate income” could take. One such idea is called the universal basic income (UBI), and another that has been advocated by the likes of Bill Gates is a tax on the use of robots (RT). Weller (2017) refers to Bill Gates saying that this should not come from company profits, but from the national pot.

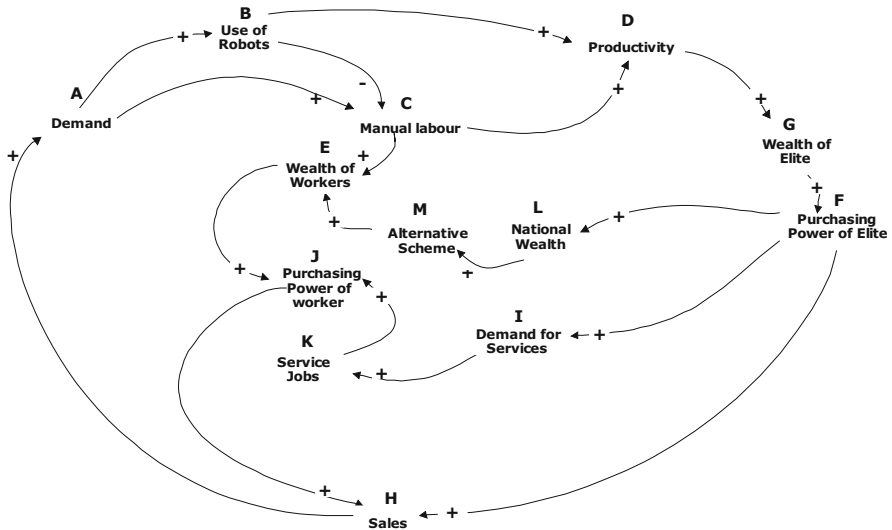


Fig. 1 Economic ramifications of Industry 4.0 (Personal collection) (Source: Own results)

The UBI would be a guaranteed income for every resident of a society or economy which would provide enough for living, i.e. food, housing and sick care. There are various ways that this could be paid for. It is argued that simply by abolishing all means testing (a very expensive exercise), enough money would be available to fund such a policy. It would not require major changes in taxation, and people would be free to work and earn as much as they desired above this basic payment. It is hoped that many people would devote their activities to cultural enterprises and recreate a common sense of identity. It would get rid of so-called poverty traps and contribute towards a more caring society. Professor Zwolinski (2010) of the Cato Institute enumerates four libertarian arguments for a UBI. He places them under the banners of (i) reduced bureaucracy, (ii) reduced cost, (iii) reduced rent seeking (i.e. under a universal programme, there is less space for political exploitation or benefit fraud) and (iv) a reduction in the state's "invasive/paternalistic" tendencies, as there is no longer a need to categorise beneficiaries as the deserving poor.

Varoufakis (2017), a former finance minister of Greece and professor of economics at the University of Athens, and futurist Gada (2016), on the other hand, have each suggested that the laboursavings from automation could (and should) pay for UBI. Varoufakis' proposal is one-part wealth tax and one-part ownership restructuring: a small tax is levied on shares from every initial public offering put into a Commons Capital Depository that in effect grants citizens property rights over new technologies that yield financial returns. The Commons Capital Depository would then pay out a UBI to all citizens. Varoufakis sees this as potentially alleviating "irreconcilable political blocs, while [...] reinvigorating the notion of

shared prosperity”, largely due to reframing understandings of when wealth is a result of hard work vs. context and luck especially in the face of technological unemployment.

Another way that is being proposed is the Robot Tax. Robots are a capital investment, such as a blast furnace or a computer. Economists have traditionally opposed to tax things that allow the economy to produce more goods. It is believed that the taxes that inhibit investment make people poorer, because it does not bring a lot of extra money. However, from the standpoint of Weller (2017), investment in robots cannot be compared to investments in operating coal-fired generators: they increase the industrial production, but also increase social costs, which economists call a negative externality. Perhaps the rapid automation can lead to the fact that many people lose their jobs, and new sectors will not be able to employ all of them. This can lead to high social cost and long-term unemployment, as well as potentially destructive to support government policy. Tax on robots could be likened to a tax on emissions of blast furnaces, writes the British magazine *The Economist* (2017). The money could be spent on retraining workers on health and education or to help the elderly and the sick. Slowing the introduction of robots in healthcare and service sector may seem like a reasonable way to maintain social stability. But if it would increase the cost of the medicine, which “eats” extra income workers, it will be a victory, tantamount to defeat.

4 Training and Industrial Development

As Industry 4.0 will radically transform the competence profiles for workers, it will be necessary to provide the appropriate training strategies. The rise of 3-D printing will negate the need for manufacturing skills that workers needed in the past. 3-D printing is now used for creating human organs to use as a test bed for drugs, all different types of materials (glass, metal, brick) and also is being used to create chocolate. In response to this, what is needed by workers will be what has come to be known as “soft skills”.

“Soft skills” is the term given to people’s ability to handle the human side of business such as influencing, communication, team management, delegating, appraising, presenting and motivating. This is now recognised as key to making businesses more profitable and an essential skill for new employees. Increasingly, companies aren’t just assessing their current staff and future recruits on their business skills. They are now assessing them on a whole host of soft skill competencies around how well they relate and communicate to others.

In the most advanced and developed companies, employees are required to possess an ability to communicate clearly and openly as well as listen carefully and react empathetically. Besides the mentioned skills, writing is important to ensure proper corresponding to communicate the required information. Another highly valuable soft skill is the ability to adapt to the dynamically changing conditions while applying more creative and non-standard thinking.

In the modern world, which is more stressful than ever before, it is essential that future workers acquire these skills. This will include assertiveness skills (key techniques to deal with bullying, confrontations and difficult people), business networking skills (being at ease in the networking arena and in building the relationships), communication skills (preparing slides, corresponding correctly, making oneself understood), conflict management, interview skills, stress management training, planning and organisation, budget and cost control and work-life balance.

Personal development planning (PDP) is a continuous development process that enables people to make the best use of their skills and helps advance both the individual's plans and the strategic goals of the organisation. It is a working strategy, which helps identify development needs. The process is continuous by its very nature. It benefits both the individual and the organisation. It also benefits the individual's line manager, his or her colleagues/peers and other staff with whom he or she works.

Participation in PDP is voluntary and is driven by the individual. It is a four-step process comprising preparation, personal evaluation including the completion of a PDP workbook, PDP meeting with one's line manager and continuous review. PDP ensures that employees receive recognition for their work through a process which acknowledges their achievements and provides them with as much information as possible about what they do and what is required in order to do better.

The PDP workbook provides a clear framework that allows people to identify in terms of personal development where they have come from, how they are getting on in their job at present, where they would like to be in the future and how they propose to get there. The questions to be completed are framed as follows:

1. Where have I been?
2. Where am I now?
3. Where would I like to be?
4. How do I get there?

The workbook contains detailed guidelines to answering these important PDP questions. Answers that are accurate and comprehensive enable the individual to form an agreed personal development plan that will deliver the development objectives identified.

Careful preparation for the PDP meeting between the staff member and his or her line manager is crucial from both the participants' point of view. It is vital that line managers read this guide and be fully informed of what personal development planning is, what its benefits are, what should happen before starting the process, the process itself, who the key stakeholders are and what are their roles. The more information gathered by the line manager before the meeting, the richer the outcome. For example, the line manager should review the staff member's job description and be prepared to provide constructive feedback based on past performance.

At the meeting itself, the line manager should be in a position to validate feedback comments with actual examples of behaviour and should encourage the staff member to openly discuss his or her personal development plan and any specific job advancement expectations. The meeting should be structured into two parts. The first

part should focus on the job objectives, and the second part should concentrate on an identification of development needs. At the end of the meeting, the line manager should clarify what has been agreed and both line manager and staff member should agree dates for review as part of the continuous process of PDP. The line manager has an obligation to keep the staff member's personal development plan and all details of discussion at the PDP meeting confidential.

It is equally important that staff members prepare fully and carefully for their PDP meetings. They should complete the first three questions in the workbook prior to the meeting. They should also review their job descriptions and assess their skills in the light of the organisation's objectives. They should invite others to provide them with feedback – line manager, colleagues/peers and any staff which they themselves manage. It is important that they obtain as much data about themselves as possible.

At the meeting itself, they should focus first on job objectives and then on development needs. They should have their key questions prepared and well-rehearsed, their development objectives clearly identified and the options that best suit their needs listed. In the light of this information, their developmental needs can be analysed, and appropriate developmental activities (such as formal training, coaching or mentoring) can be agreed. At the end of the meeting, they should clarify what has been agreed and fix timelines and dates to the PDP process. They should meet again with their respective line managers not later than 6 months into the process, and they should have a final review not later than 12–18 months following the initial PDP meeting.

Laloux (2014) presented how management has evolved over the ages showing several stages, where each stage is identified by a colour. The first stage was described as a “wolf pack” characterised by division of labour and command authority. The last stage was referred to as a “living organism” that has an evolutionary purpose, is self-managed and is holistic. In our view, there is now a further addition to this list which can be termed “algorithmic management”. This is the type of management exhibited by companies such as Uber, AirBnB and Deliveroo and is being adapted by many more. Whereas classic manufacturing would be ensuring competitive advantages through the extensive utilisation of self-controlled, knowledge-based and sensor-enabled production, operations would be getting “smarter”, and employees would have to possess new skills for adopting new technologies within human-machine and human-system environment. The organisational driver for business management is the ability of a factory to self-organise virtually without human input. This is a form of extreme decentralisation. In the last 40 years, a trend towards decentralising factory control has been clearly recognisable, and this is now being pushed to the extreme (Scheer 2015).

5 Conclusions

To summarise, the Industry 4.0 does not only lead to job cuts, but it provides an opportunity to increase levels of global income and raise standards of living. Until now, regular consumers have mostly benefited from the 4th Industrial Revolution gaining a chance to become a part of “new digital world” while using technologically advanced products and services. Yet to come, technological advances will revolutionise production processes and supply chains in terms of significant productivity and efficiency improvements.

Whereas some economists, including Brynjolfsson and McAfee (2012), claim that the revolution would also cause even greater inequality, especially in forms of disrupted labour markets. Klaus Schwab (2016), founder and executive chairman of World Economic Forum, anticipates that as robotisation substitutes for workforce across the entire economy, the net displacement of workers by machines might exacerbate the gap between returns to capital and returns to labour. For all that, automation should gradually decrease injuries gained at dangerous jobs.

Despite the fact that Industry 4.0 is also referred to as the Fourth Industrial Revolution, it is rather an evolutionary process. Available technologies are already able to provide stable performance for a relatively low price that is still going down. They still lack wide application experience and have to be adjusted for the application in particular solutions within manufacturing and service settings.

Moreover, success of Industry 4.0 highly depends on management approaches and attitudes to new digital solutions. We suggest that “algorithmic management” would be a core of any organisation willing to be competitive in the digital environment. At the same time manufacturing would strive to apply the technological advances to make the operations “smarter” – self-learning, more predictable and efficient. Over the decades, a clear trend of factory decentralisation has taken place, and nowadays it is being proliferated.

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Socioeconomic Leadership of the Individual in the Information Economy: Nanolevel of Research



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Abstract The article explains the significance of the nanoeconomic approach in the study of the socioeconomic leadership of a separate economic agent (individual) and why it may be reasonable to consider the nanolevel to be the initial level of economic relations. It is proved that in the information economy based on knowledge, the role of the person who is the bearer and creator of new knowledge increases, which creates prerequisites for individual socioeconomic leadership. The multifunctional roles of an individual as a consumer, as the saving agent and investor, as an owner of a microenterprise, as a free agent, as a person, as a creator, and as a disseminator of ideas and innovations are revealed using the nanoeconomic approach to the analysis of consumer, financial, labor, entrepreneurial, and innovative behavior. In conclusion, the main principles of the space-temporal model are for the development of socioeconomic leadership of modern man in the new economy.

1 Introduction

An objective law of modern socioeconomic development is the formation of the information economy. At the stage of postindustrial civilization and information revolution, computer and telecommunication technologies, modern communication means dramatically accelerate global integration in all directions, giving the processes of the previous industrial civilization new qualities and dynamics. A communication unity of the world is formed, in which the speed of distribution of unprecedented volumes of information is much greater than the speed of movement of people and goods. The global information space transforms economic, political, social, and cultural activities. Information technologies repeatedly increase the intensity of connections between people, peoples, and civilizations. The technosphere determines the life of people and expands the possibilities of human

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development, and intellectual activity acquires more power. Capital as a factor of production gives way to information, knowledge, and intelligence. A globalization and informatization change the way of life in many countries of the world, accelerates time, compacts space, erodes boundaries, and sharply intensifies social processes.

Complication of socioeconomic life as technological transformations increased, humanization of the reproduction process was promoted, and the person was nominated as his goal, which is a global trend, one of the qualitative principles of the information economy. Under the information economy, the work is understood as the modern stage of socioeconomic development, a new economy that expands the possibilities of human development and contributes to the improvement of well-being through the active use of information, knowledge, and innovative technologies. The goal of the new economy is to study new patterns and factors based on knowledge of man and the world and “make work for the good of society.”

In the opinion of Shkaratan (2011), the information economy is changing the process of social mobility of society; the meritocratic principle of selection comes to the fore, when creative, highly educated people gain real advantages in social progress. In other words, the social hierarchy is determined not only by economic resources but also “strengthened by the hierarchy of the ownership of human and cultural capital” (Shkaratan 2011).

Various aspects of economic behavior have acquired special significance in the context of rapidly changing economy of our time. In the modern world, the material operating results strongly depend on nonmaterial motives, on the ethic moral order, on people’s expectations, and on their trust, feelings, etc., the effect of which doesn’t at all correspond to the absence of these phenomena in explained economic models.

The changing reality requires a change in the methodology of research of socioeconomic leadership (Charysheva 2015), consideration of the individual as a subject, and his/her multifunctional role in the current conditions of the information economy.

2 Literature Review

Economic science is gradually expanding; it identifies in terms of subject the levels of analyzing the theory and practice of the economic life of society. The creation of the modern scientific paradigm requires new approaches to the methodology of research into economic relations. At present the multilevel approach enjoys increasing popularity. In the context of globalization and information economy, we observe growing sophistication, evolutionary expansion, and emergence of new analytical research directions: from *macroeconomics* to *mega*economics and from *micro*economics to *nano*economics.

In the Western academic literature, the concept of “*nano*economics” first appeared in 1987, introduced into scholarly use by the prominent economist Arrow (1987). By *nanoeconomics* the author understands the theory of economic

behavior of individual economic agents in market or nonmarket conditions. Various aspects of nanoeconomics are discussed by Williamson et al. (1993) (the theory of transaction costs associated with incentives and contractual process requires “nanoeconomic knowledge”), Roco (2003) (the theory of the study of phenomena using the analysis of a higher order (in-depth level), and Lucas (1996) (the theory of single transactions in the process of generating solutions by market participants).

In the Russian economic thought, the first studies into the area of nanoeconomics as “economics of individuals” appeared in 1996 and belong to Kleiner (2004). The seminal contribution to the theory of nanoeconomics was made by Inshakov (2007), who identified the three major directions of research: *utilitarian*, *behavioral*, and *evolutional*.

The basic of the nanolevel of research is the behavioral economy, which refers to the synthesis of psychology and economics, the correlation of human psychology, and the economic behavior of market agents. In the academic literature, the behavioral economy as an independent direction appeared in the 1960s–1970s and actively established by outstanding scientists psychologists Kahneman et al. (1982) and economists Akerlof and Shiller (2009) and Ariely (2013). In the Russian economic thought, the first studies in the field of economic psychology belong to Kitov (1987) and Sokolinsky (1999). Fundamental contribution to the theory of psychological economics was made by Reisberg (2005), who identified three main areas of research – the psychology of monetary behavior, the psychology of labor behavior, and managerial psychology.

The development of the behavioral economy in modern conditions is reflected in the scientific works of Akerlof and Shiller (2009) *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism?*, in the scientific works of S. Levitt and S. Dubner (2010) *Freakonomics* and *SuperFreakonomics*, and Frank (2013) *The Darwin Economy*.

3 Methods

Nanoeconomics as a whole is a set of economic relations in production, allocation, exchange, and consumption at the level of primary subjects – individual economic agents – in the process of their economic activity and their actions and operations aimed to ensure effective use of scarce resources in order to satisfy the unlimited needs (Manakhova 2011).

The research into economic behavior requires certain synthesis as it is located at the intersection of interests of virtually all areas of study in Humanities: philosophy, economics, sociology, psychology, etc. The nano-science is developing under the influence of natural sciences, such as physics, biochemistry, nuclear microscopy, electronics, information technology, etc. Nanotechnologies form the basis for the information economy, jobs of fundamentally new quality are created, and properties of consumer products and communication mechanisms are changed; all these developments bring about the emergence of a new economic agent – the individual (Table 1).

Table 1 Methodological framework of nanoeconomics

Research level	Object of study	Subject of study						
Nanolevel	A human being, individual	Economic behavior and activity of individual economic agents	<table border="1"> <tr><td>Consumer</td></tr> <tr><td>Financial</td></tr> <tr><td>Working</td></tr> <tr><td>Entrepreneurial</td></tr> <tr><td>Innovative</td></tr> </table>	Consumer	Financial	Working	Entrepreneurial	Innovative
Consumer								
Financial								
Working								
Entrepreneurial								
Innovative								

Source: the authors

4 Results and Discussion

In the information economy based on knowledge, the individual starts to play greater role as the carrier and creator of new knowledge, which creates prerequisites for individual socioeconomic leadership. On the way to leadership, the individual goes through several stages of transformation. In the work of Magomed-Eminov (1998), a special transformation type is distinguished – endo-transformation is a form of personality transformation in which an individual turns from one integrity into another and reaches a level of greater maturity, fullness of self-realization, and experience expansion. Since nanoeconomics deals with individual economic agent, the diversity of his/her economic behavior forms the basis for the understanding of his/her leader role in the new economy.

The Individual as a Consumer Consumers make the major assessment of the company’s activity. Under the new conditions, consumption patterns are changing: it is becoming diverse, individualized, and situational. In the opinion of Tapscott (1999), transformation of the producer-consumer relationships, when the distinction between production and consumption become blurred, is one of the features of the new electronic and digital society. The process of customization is gathering steam, producers having to adapt the goods to the requirements of an individual customer. In the new network society, consumers are increasingly involved in the production process: their knowledge, information, and ideas are used to determine the technical characteristics of the products. In the info-space, every consumer becomes also a producer – when they are writing and sending messages, testing a car, and creating a new design on the computer monitor. Consumers’ ideas, information, and technology are becoming part of the products; the knowledge content in goods and services is growing. Consumers of information and technology are becoming producers and begin to play the leading role.

The Individual as the Saving Agent and Investor The study of an individual economic agent’s financial behavior at the nanolevel rests on the achievements of cognitive neuroscience, neuroeconomics, and behavioral economics (Akerlof and Shiller 2009; Kahneman 2011; Lunn 2014). In the course of psychological experiments, the scientists have discovered the phenomenon of “false memory,” which can hinder adequate perception of reality and affect the decisions made by individuals

under uncertainty, especially characteristic of financial markets. According to researchers, most people do not think about the future, they automatically react to changes in income (Akerlof and Shiller 2009). Uncertainty affects the decision to postpone money and accumulate savings; as individual agents do not know the future, they do not have methods for assessing future changes, and information is heterogeneous and asymmetric. Uncertainty is a function of time, a variable parameter. The higher the uncertainty, the shorter the planning horizon, and the more difficult it is to make the right decision, the higher the opportunity cost (e.g., the interest on the loan) and the greater the likelihood of not making a decision (e.g., in favor of saving). As a result, most do not have significant savings, which puts them at risk when they retire. Then we can distinguish the following pattern: the higher the level of uncertainty, the more irrationally people behave. Realistic modeling of behavior requires an in-depth research into the motivation and determinants of behavior of those who save and invest, their risk appetites, their propensity to choose particular financial strategies.

The Individual as an Owner of a Microenterprise A nano-corporation, or microbusiness, in the opinion of Pink (2005), remains “awfully small,” and its size reflects the owners’ preferences and underlies the competitive strategy. In the information economy, the means of production are available to everyone and inexpensive; they can be stored at home and serviced by one person, hence the tendency for the business to migrate “from work to home.” This is caused by digital technologies that may reduce costs to virtually zero and eliminate barriers to entry. As scientist predicts, we are in for a transfer from monolithic organizations closed within their own borders and looking down over the world to a web of atomized units, permanently forming new relationships and creating market value bottom up, which changes the understanding of resource management.

The Individual as a Business Unit Nanoeconomy is defined as the economy of the workplace. This approach is based on economic genetics and evolutionary economy, which makes it possible to design and apply operational management nanotechnologies, significantly improving productivity, efficiency, and competitiveness of businesses on the global scale. Drucker (2007) distinguishes the particular category of “knowledge workers,” who have high intellectual and creative potential. It is therefore essential to make every individual worker’s specific skills and knowledge as productive as possible. In his view, the ability of an organization to master knowledge and promptly use it is a greatest competitive advantage. In this process the role of each worker as a business unit is paramount.

The Individual as a Free Agent An important feature of the new economy is the free agents, who are employers and employees at the same time. In the USA this is the largest employment sector; Pink (2005) identifies three major categories of self-employed population: “soloists” or freelancers, temporary workers, and micro-entrepreneurs. Freelancers work on their own, moving from one project to another. Temporary workers are the people who turn into freelancers against their will. One

of the reasons for becoming a freelancer is personal insecurity and instability of the corporate environment.

The Individual as a Person The use of organizational management principles in building one's personal career, personal time management, and planning for life processes, all this has been forming the new field of research: nano-management. In the opinion of Lyubimova (2009), *personality and career management* is based on completely opposite realities: (1) most people will outlive the organizations they are working for; (2) knowledge workers have higher degree of mobility and easily change jobs. This approach is determined by the individual's desire for high quality of life standards, their concern for self-realization, their health, welfare, and personality development. This is facilitated by modern technologies and by the conditions of information economy. One can observe the evolution of both personal possibilities and opportunities of satisfying one's needs.

The Individual as Creator and Disseminator of Ideas and Innovations Nanoeconomic analysis of innovative behavior addresses individual experience and the uniqueness of every person as a creator of new ideas. The key point of the innovative process is getting beyond rational thinking and departure from traditional patterns and methods of processing information. Creation of new ideas and innovations is based on the impulses of the irrational, the intuitive, and the creative part of the person. West (2004) maintains that an innovator is a person with a sufficiently high level of creative and innovative abilities, who can both generate new original ideas and put them into practice. Dissemination or diffusion of innovations is, by Rogers (1995), a process, in which new ideas, technologies, and suggestions spread among the participants of a social system (net) through communication channels over a certain period of time. Social ties depend on the degree of confidence in other agents and institutions that play a key role in the life of a person. People's collaboration in the net becomes part of the international depository of knowledge.

5 Conclusion

Modern technologies make it possible to create a spatial-temporal model for the development of socioeconomic leadership of the individual, relying on a system of new values in the information economy. One of the ideas – a “horizontal career” – forms a vector of comprehension of the person's life space, the idea of the infinity of professional and personal self-development. The spatial vector of a person's self-development is supplied by another qualitative level of value “management from any point.” This management principle is comparable with the phenomenon of the “quantum transition,” when the quantum system of an atom jumps from one energy condition to another, that is, the quantitative practical application of acquired skills goes to a different quality of management of own resources. The development and application of these technologies provides the possibility of a “quantum”

managerial transition in the vertical hierarchy, helps to move up in career, and creates a two-dimensional horizontally vertical space for the development of leadership qualities. The realization of the value of a Great Goal (a goal outlying his/her own life) forms a time vector of development. Stated Great Goal structures the time of life for activities related to the achievement of the goal and the wasted time. The time vector of technology for achieving the Great Goal is directed to the future and allows a person to maintain his positions in the created venture, business, and technologies.

In conclusion, it is important to define several stages for the development of socioeconomic leadership of a person:

- To become a leader for yourself
- To move to leadership development based on a vector control or goals management
- To reach the level of personal leadership mentality, which allows meaningfully manage life goals, career, and financial status

Thus, in the new economy, individual economic agents radically alter the relationships on the markets for goods and services, labor, and capital. Any efficient activity certainly depends on each particular person, their contributions, behavior, and attitude to the task, and their incentives, motivation, and sources of information. New intellectual software and information channels increase the pace of change, which at any level of economic analysis requires the individual's proactive responses to changes in opportunities as well as strategic decisions made using the instruments that are only available at the nanoeconomic level.

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Sustainable Development and Environmental Leadership: A Case Study of the Baikal Region



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Abstract Conservation of Lake Baikal for the present and future generations is a historical mission of the nations of the Baikal region. In order to tackle this global challenge, it is crucial to implement an environmental-ethical model of sustainable development. Such model of sustainable development envisages (a) development of a concept, strategy, and program of regional sustainable development; (b) development of a set of legal documents regulating the process of institutionalizing the sustainable development model; and (c) creation of a system of public and state environmental monitoring and control over practical implementation of sustainable development principles.

Prospects of the Baikal region as an environmental-ethical model of sustainable development are attributable to the following factors. First, the Baikal region displays a huge potential of environmental-ethical and cultural-historical traditions relevant to the moral imperative of sustainable development. Second, these prospects are related to the necessity of environmental protection of Lake Baikal as a “global well” and a particular “developmental site” on the globe. An all-Russian project under the title “Baikal – the Great Lake of the Great Country” will be launched in early 2018. This project will be efficient only if it becomes a common cause for all citizens, institutions, and authorities of the Russian Federation. The problem is to build a morally and legally substantiated strategy of nationwide mutual responsibility for the protection of Lake Baikal and sustainable development of the Baikal region and an equally substantiated strategy of environmental responsibility of every dweller of the Baikal region.

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1 Introduction

In academic literature problems of environmental ethics have been actively discussed throughout the last decades of the twentieth to early twenty-first centuries. Deepening environmental crisis became the reason for the awakening of scientific interest to these problems. Nowadays the foundations of global security and sustainability are under threat. All this threatens mankind with potential worldwide disaster and annihilation of the entire biosphere of the Earth. In our view the formulation of global environmental ethics is one of the main prerequisites of overcoming the worldwide anthropological and environmental crisis. Under environmental ethics, we understand the aggregate of norms and values that expresses multilateral ties and relationships of an individual and a society with the environment. It answers the question “How should we coexist in harmony with nature?” This fundamental issue of environmental ethics is specified depending on what is meant under “us,” the individual, or the society. In the first case, the issue emerges as the problem of shaping the environmental consciousness and environmental behavior of every individual. In the second case, the matter is formulated as follows: what should the ethics of human responsibility be like if mankind purports to pursue sustainable development? Here the entire biosphere is the subject of human responsibility. It is a subject of colossal dimensions that dwarfs all other objects of human responsibility.

The tragic dialectics of human existence lies in the fact that the growing power of a human being may become a cause of his self-destruction and annihilation of the entire Earth’s biosphere. Will this anthropological and environmental disaster reflect in the condition of the universe? It is unknown to us. From the existential viewpoint, a more meaningful question is that of human responsibility for existence in general. Human liability to existence is the demand to conserve something threatened with death, something that without human intervention will turn into oblivion. To be or not to be – that is the question!

Global environmental responsibility implies the development of environmental leadership both at the national and regional levels. The environmental leadership algorithm is expressed by a formula: “Ecology comes first, and then comes infrastructure, then business.” The activity of governmental and nongovernmental organizations of the Baikal region aimed at protection of Lake Baikal, the UNESCO World Heritage Site, may be used as an example of environmental leadership. Drawing upon the environmental leadership strategy and in the process of tackling the “Baikal problem” as its competitive edge, the Baikal region may prospectively become a model territory of environmental security and sustainable development in the world.

2 Literature Review

The Declaration on Environmental Ethics passed at the 1997 Seoul International Conference serves to substantiate environmental ethics as the value basis of sustainable development. It highlights that without recognition of the global role of environmental ethics, no sustainable development whatsoever is possible. The Declaration states that only a community of equal states whose interaction with the Earth and with one another is based on the laws of nature and social justice; a community whose aim is conservation of biosphere and enhancement of humankind to preserve planet Earth is capable of preserving planet Earth (Seoul Declaration on Environmental Ethics 1997).

Below we provide the main principles of environmental ethics based on the Seoul Declaration.

The Holistic Humanism Principle It should be acknowledged that humans and the natural environment are interdependent and part of a larger entity known as the “Whole-Life-System.” The environment is not a resource for exploitation, but a subject of coevolution and a partner for sustaining life. Human society must also begin to understand itself as a collective body whose welfare is dependent on the welfare of all constituents of the “Whole-Life-System.” This new holistic perspective on nature and on ourselves constitutes the best hope of solving environmental problems. Responsible decisions that we take must be determined by our own vision of moral strength, nobility of spirit, and a reverence for life. We require an ethical paradigm based on social equity, respect for diversity, and a culture of cooperation and shared responsibility in preserving the integrity of the “Whole-Life-System.”

The Totality Principle Earth’s “Whole-Life-System” refers to a totality in which human beings together with other life forms, natural elements, and forces coexist interdependently as a cohesive entity. The viability of the “Whole-Life-System” is essential to and dependent upon the very existence and integrity of all of its constituent components and, at the same time, depends on them. All human decisions ought to be made and implemented on the premise that the existence of all life, including human life, can be sustained only when the integrity and well-being of the “Whole-Life-System” is preserved.

The Spirituality Principle The industrial civilization has brought about an abundance of goods and services for humankind, but also an obsession for materialism and a distortion of human values. These adverse effects on society have reached a critical threshold. Therefore, we must act now to find the proper balance between materialistic pursuits and the need for spiritual fulfillment, in order to embrace life more fully. We must come to understanding that the global environmental crisis is a result of human greed and consumer materialism. Until we alter our values and beliefs, these factors will contribute to environmental degradation and finally will lead to the collapse of natural life sustaining systems.

The Environmental Equity Principle Equity should exist among nations, ethnic groups, and generations of humankind in the distribution of the social and economic benefits from the Earth's environment. All people have equal rights to live in a safe environment as well as the right to pursue individual happiness and prosperity. Taking into account the fact that in many cases environmental degradation is long-term and cumulative, precautionary policies guided by considerations of equity must be implemented to safeguard the rights of future generations.

The Greening Science and Technology Principle Concepts that form the foundations of development and use of technology must take into account the finite carrying capacity of nature and the intricate interconnectedness of the "Whole-Life-System." The development of environmentally friendly technologies must be encouraged. All technologies should be subject to rigorous environmental-ethical assessment to avoid irreparable damage to the environment.

The Precautionary Principle Modern technological alchemy poses a threat to life and puts human existence in this world at unnecessary risk. Therefore any high-risk enterprises must be eschewed even at the cost of zero implementation of many technical projects. It is a commandment of common sense. Environmental ethics imposes strict limits to freedom of human activity in the interest of life preservation on the Earth including the survival of mankind. In this sense environmental ethics contradicts with the neoliberal utopianism. No promises of new consumer benefits and freedoms and no technocratic illusions projected into the future cannot and must not become a justification for any risk to the "Whole-Life-System." The main objective of environmental ethics is to ensure sustainability of life at present and its security in the future. The environmental-ethical life strategy prohibits a "go-for-broke play" in all issues concerning the life of mankind. It also means securing the biosphere from anything that threatens it.

The Responsibility Principle Only something threatened with imminent destruction and something that we can sustain or save may be an object of human responsibility. This also means that the man has power over the object of responsibility. In other words responsibility is a correlate of leadership. The new public practice with its convergent technologies (nano-, bio-, info-cognitive) requires a new scale of responsibility. Nowadays nature tests man. Only in man's morals it left open a possibility of self-containment and self-control of the man's own immeasurable might, of symbiotic leveling and restoration of the cohesiveness of life.

The categorical imperative substantiated by German philosopher Hans Jonas has an imperishable significance for the formulation of the environmental-ethical life strategy. He puts it as follows, "The imperative that corresponds to a new character of human activity and addressed to its new subject should sound approximately like this 'Act in such a way that the consequences of your activity be compatible with sustaining of a truly human life on the Earth.'" Or, if we reformulate this quote into a negation, we read, "Act in such a way that the consequences of your actions be not destructive for the future chance of such a life" or simply "Do not threaten the conditions for the indefinitely long survival of mankind on the Earth." If we

reformulate it again with a positive sense, then it reads, “Include the future integrity of man into your present choice as an inseparable object of your will” (Jonas 2004: 31). But since human existence is the in-world existence, the support of the existence of nature is the prime condition for the existence of mankind. In the interests of self-preservation, the man should become the “shepherd of existence” in M. Heidegger’s words, and environmental ethics is the central value pillar of human life strategy.

3 Research Methods

Research goal: to substantiate the necessity of development and implementation of a new (environmental-ethical) model of sustainable development of the Baikal region of the Russian Federation.

Objectives: (a) to formulate environmental prospects of the Baikal region, (b) to determine the significance of the responsibility strategy as an ethical foundation of civic leadership and governance in the environmental sphere, and (c) to demonstrate the role of environmental responsibility and environmental leadership as institutional means for the promotion of the new sustainable development model of the Baikal region.

Research methods: dialectic and systemic. The glocalization concept as a systemic-dialectic process of interaction between the global and the local aspects of sustainable development of the world forms the methodological base of the solution to the “Baikal problem.” It is the localization of global development strategies and globalization of local problems.

4 Results and Discussion

A question arises “Is the new ethics capable of abating the consumer aggression of man and limit the power of technocracy?” Yes, it is if environmental ethics becomes a philosophy of worldwide sustainable development and value-oriented consciousness of each man and if understanding of responsibility for the existence of life becomes the principle landmark of world politics and public practice.

In this connection, one should specifically highlight the report of the World Commission on Environment and Development headed by Gro Harlem Brundtland under the title “Our Common Future” and the outcome documents of the 1992, 2002, and 2012 UN Conferences on environment and development that form the environmental-ethical and axiological basis of the sustainable development of mankind (Report of the World Commission on Environment and Development: Our Common Future 1987; The Rio Declaration on Environment and Development proclaimed 1992; Agenda 21 1992; Outcome document of the United Nations Conference on Sustainable Development Rio + 20 “Future We Want” 2012; Plan of Implementation of the World Summit on Sustainable Development in

Johannesburg 2002; Johannesburg Declaration on Sustainable Development 2002). These international documents reflect the results of discussions and studies in the field of environmental ethics and sustainable development (Mantatov 2013).

Concerning the principal difference between Western and Russian research approaches to the problem of correlation between environmental ethics and worldwide sustainable development, it is as follows. Western researchers consider environmental ethics as the ethics of conservation and protection of nature setting it off against the ethics of progress (Environmental Ethics: Divergence and Convergence 1998; Desjardiens 1999; An Invitation to Environmental Philosophy 1999). Essentially, many Western scholars propose to tackle the problem of nature preservation and sustainable development at the cost of containment of development of non-Western countries. For instance, one of the founders of environmental ethics Hans Jonas argued that the humanity cannot allow a worldwide rise in people's well-being given the ongoing environmental crisis (Jonas 2004). Russian scholars view environmental ethics as the ethics of sustainable human progress. What is usually referred to as environmental ethics is transformed in their works into the noosphere ethics, a concept of agreement between the "strategy of Nature" and "strategy of Reason" (Moiseev 1990; Ursul 1990; Yanshin 1991; Reimers 1992; Girusov 2013).

In the context of this theme, the conclusion reached by researchers in environmental ethics in the Institute of Sustainable Development of the East Siberian State University of Technology and Management is particularly interesting. It can be formulated as follows: worldwide sustainable development is an environmental-ethical revolution of planetary scale and environmental ethics is a noospheric phenomenon. Environmental ethics is the ethics of human spiritual growth, and spirituality is nothing less than a broadened understanding of human responsibility for the existence of nature and evolution of the world. In a sense the essence of the sustainable development concept coincided with the categorical imperative of environmental ethics and that imperative may be described by a single word "responsibility" (Mantatov and Mantatova 1998, 2000, 2014, 2015).

The Earth Charter proclaims: "We must... live with a sense of universal responsibility, identifying ourselves with the whole Earth community as well as our local communities. We are at once citizens of different nations and of one world in which the local and global are linked. Everyone shares responsibility for the present and future well-being of the human family and the larger living world. The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature" (Earth Charter 2001).

A question arises whether every man is equally responsible for the global (and regional) environmental crisis. We suppose not. As a result of discussions on this issue, an agreement was reached concerning a total, undifferentiated environmental responsibility of individual citizens, corporations, countries, etc. Nowadays the following types of responsibility are distinguished in environmental ethics: individual, corporate (institutional), collective, and shared (meta-institutional). The explanation of the environmental-ethical responsibility of collective entities (from corporations and states to mankind in general) is provided, and the subordination

between individual, collective, and shared responsibility for the environment is determined (Prokof'ev 2010).

In two recent decades, sustainable development of the Baikal region has been at the center of attention of public and state organizations of the Russian Federation. It has solid legal and organizational support. First and foremost, there is the Federal Law "On Protection of Lake Baikal" No. 94 Federal Law – dated 01.05.1999. On March 5, 2015, the government order No. 368-r of the Government of the Russian Federation on expansion of water protection zone up to 80 km. Within this zone it is forbidden to privatize land plots, carry out agricultural works and burials, construct animal burial sites and waste management landfill sites, extract mineral resources, and place motor vehicles on unpaved surfaces. According to this order, a considerable part of coastal territory is practically withdrawn from economic turnover. The basic legal document is the Federal Target Program "Protection of Lake Baikal and Socioeconomic Development of the Baikal Natural Territory in 2012–2020" setting target indicators that ensure protection of Lake Baikal – reducing wastewater discharges into water bodies, decreasing of total square of highly and extremely polluted natural territories, reducing waste, etc.

The all-Russian project under the title "Baikal – the Great Lake of the Great Country" will be launched in early 2018. The document envisages the implementation of 375 ecological and technological measures worth 500 million roubles. With wholehearted support to the launch of this project, we believe that reforming of the entire economic and management system is required. Local palliative measures are not enough to reverse the global entropy trend.

Summer forest fires in the Baikal region in 2015 and 2016 highlighted the "fire hazard" of the existing economic system and lack of responsibility on the part of the natural management system. Observers also note the lack of normal dialogue and mutual understanding between power structures and local population as regards firefighting activities. The indifferent attitude of people to common resources is a result of negative influence of the distorted system of private ownership stimuli and egocentric rules of life. Infected by the virus of egocentric individualism, many population groups are absolutely indifferent to what can be referred to as Common Good: they lost the ability of collective action based on self-organization since they do not feel they own this land. Regional events that followed the forest fires intensified contradictions between ecology and economy, the requirement to protect Lake Baikal and, at the same time, address socioeconomic needs of the people.

In our opinion, to solve these contradictions in the Baikal region, it is necessary to introduce a new environmental-ethical model of sustainable development based on world achievements in theory and practice of environmental ethics. This model of sustainable development envisages (a) development of a concept, strategy, and program of regional sustainable development; (b) development of a set of legal documents regulating the process of institutionalizing the sustainable development model; and (c) creation of a system of public and state environmental monitoring and control over practical implementation of sustainable development principles.

Prospects of the Baikal region as an environmental-ethical model of sustainable development are attributable to the following factors. First, the Baikal region

displays a huge potential of environmental-ethical and cultural-historical traditions relevant to the moral imperative of sustainable development. Environmental-ethical traditions are the cornerstone of the locality ethics and the locality ethics shapes the ecological behavior of people. The locality ethics is of utmost importance for the sustainable development of communities since it guarantees opportunity to develop models of taking environmentally responsible decisions with regard to local people's preferences. The locality ethics suggests modeling environmentally responsible decisions not according to market rules, but on ethical principles, based on the sense of private geographical place.

The ecological behavior of people in this or that territory depends on the role they play, be it the role of a local dweller or a market agent. In contrast with the market stakeholders who abstractly perceive values of nature and treat them as merely resources, local dwellers in constant interaction with the environment perceive nature as the source of life. They display developed environmental awareness that persons operating dry figures to substantiate the necessity to exploit natural resources generally lack. Business is interested in market value of natural resources much more than in aesthetic value of environment. Unlike businessmen, the local people cannot stay indifferent to protection and enhancement of local natural landscapes if only because they interact with them on a daily basis, here and now.

We believe that environmental ethics should primarily be based on the value of private "developmental site" and on those values, which are associated with the sense of fatherland inherent in any person. Meanwhile it is very important to distinguish between "regionalism" based on economic egoism and the moral sense of "developmental site." If the ecological behavior of local people is caused by economic interest, then, as a rule, they are quite satisfied with monetary compensation for damage to local environment. From the standpoint of environmental ethics, they are no different from those dealers, who destroy the environment for sheer profit. However, if the local community defends their "developmental site" out of altruistic environmental-ethical reasons, such "regionalism" can only be praised. For example, high moral authority of the Baikal environmental movement is due exactly to selfless struggle for protection of Lake Baikal based on ethical understanding of "developmental site."

Second, these prospects are related to the necessity of environmental protection of Lake Baikal as a "global well" and a particular "developmental site" on the globe. People of the Baikal region realize their responsibility for preservation of Lake Baikal's ecosystem. However, in reality we often encounter the facts of blatant violation of both environmental legislation and moral standards of ecological behavior. Alienation of people from authority is one of the reasons of such state of affairs. People stopped realizing themselves in charge of their own lives and, consequently, stopped thinking of themselves as subjects of responsibility. It is known that responsibility always presumes the right to participate effectively in decision-making and leadership in their implementation. Is the team of a large enterprise that pollutes Lake Baikal responsible for this pollution? It is more "no" than "yes" since all decisions on the functioning of the enterprise are taken by a narrow circle of proprietors. The existing hierarchical and undemocratic character of main

production units (corporations, enterprises, institutes) prevents the staff from becoming subjects of responsibility and leadership. Results and costs of effort of oligarchic corporations are out of control zone of either an individual worker or staff in general. The corporation itself is not interested in environmental limitations since its purpose is getting more profits and wealth appreciation. Therefore state is the only subject of environmental responsibility given the supremacy of capital because the state has real powers. In order to become a subject of environmental responsibility for each citizen, it is necessary to reform the entire system of responsibility and leadership on the environmental ethics' principles.

Environmental ethics overcomes the concept of exclusive connection between the notion of environmental responsibility and individual act. Absolute priority given to the responsibility of each citizen for the environmental conditions leads to expansion of irresponsibility zones of economic collective entities (corporations, business structures, states, etc.). Environmental ethics introduces the notions of corporate (institutional) and shared (meta-institutional) responsibility for the existence of nature, which in their turn presume a reasonable distribution of individual responsibility in the institutional and meta-institutional systems of collective interaction. In the final analysis, a certain person (individual) turns out to be the real subject of environmental responsibility. Hence, it is crucial to nurture environmental responsibility of every person.

The all-Russian project "Baikal – the Great Lake of the Great Country" will be efficient only if it becomes a common cause for all citizens, institutions, and authorities of the Russian Federation. The problem is in building a morally and legally substantiated strategy of nationwide shared responsibility for the preservation of Lake Baikal and sustainable development of the Baikal region as well as an equally substantial strategy of environmental responsibility of each dweller of the region.

5 Conclusion

Concerning the sustainable development concept, the situation appears to be complicated. No other scientific concept of the society had such a broad public resonance. No other concept had such a powerful support from the political elites of all countries of the world than the concept of sustainable development. No other concept of society boasts such scientific justification as this one. Yet, at the same time, there is a huge distance between scientific discourses on sustainable development and their economic interpretations and between political declarations about sustainable development and its implementation methods. All these paradoxes and collisions are typical of the Baikal region too.

The Baikal experience demonstrates that given the existing economic and governance system, there is still no solution to environmental problem. A change of regional development paradigm is required. It is also crucial to change the responsibility strategy as the precursor of civic leadership and state governance.

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The Development of Transformational Leadership Competencies in the Future Teachers in a Polycultural Educational Space



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Abstract The relevance of the research is conditioned by a higher role of transformational leadership in education in conditions of ever-increasing complexity and pace of social and cultural change. Due to this, the paper is aimed at finding out the set of organizational and pedagogical conditions for the development of competencies of transformational leadership in the future teachers in the polycultural educational space. The leading method for studying this problem is the contrastive and comparative analysis of literature that allows viewing the transformational leadership in an integrated way as the subject of interdisciplinary reflection; the systemization and generalization of the data obtained has allowed making more certain the essential features of the future teachers' transformational leadership competencies. In the paper, the following are the results of a pedagogical experiment of justifying and testing out the organizational and pedagogical conditions for the development of the future teachers' transformational leadership competencies in the polycultural educational space of the North Caucasus: the development of special tasks in formation of the abilities of consistent change management in education, with the complicated ethnic and cultural context borne in mind; the use of educational resource of experiential learning as student-centered and reflexive learning approach for the future teachers; and the use of various ethnic sport forms as a means for practical acquisition of the transformational leadership competencies. The materials of the paper are of practical value for various categories of education workers developing and implementing the programs of priority development of the pedagogical staff as the transformational change leaders, for teachers of pedagogical higher educational institutions when designing the content and technologies of development of leadership competencies in students as the agents of development of educational systems under the complicated and rapidly changing social and cultural conditions.

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1 Introduction

Higher education, research, and innovations play the key part in social and economic and cultural development under the global competition aggravating.

Technological advance, globalization, and the social relations becoming more complicated and diverse make it relevant to alter the objectives, mission, and the content of higher education.

Higher education is aimed at several goals, including the training of students for active citizenship, their future career, and pedagogical support of their personal development and encouraging the research and innovations (Recommendation 2007).

The student-centered approach to learning becomes increasingly sought for, and so is the orientation to super-subject competencies that ensure the graduates the leading positions in the labor market and in the broad social life activity.

The theories of leadership can be viewed as an evolving set of explanatory structures. The very first theories of leadership were mainly oriented to individual leaders, to finding certain traits, behavior particularities that are characteristic for an ideal leader.

The contemporary researchers pay the principal attention to the way how leaders build the interaction with their followers for the purposes of personal and organizational development. An increasingly high attention of the researchers is attracted by the leaders' particularities of behavior under crisis situations, leadership under difficulty. There is a danger of not all leaders realizing the complexity of the contemporary context and using irrelevant behavioral models.

Uhl-Bien et al. (2007) have proved that most leadership models are developed using the cases of rigid bureaucratic structures that are no longer operational under the complicated changing conditions.

In the situations of increasing uncertainty, another paradigm of leadership is essential – one that takes into account the complicated social and cultural context of the modern times. As noted by the researchers, traditional leadership is losing its relevance, and it is adaptive leadership that has the decisive importance for an efficient and successful activity (Apenko and Chernobaeva 2016).

The complex adaptive leadership ensures a consistent view of leadership (Hannah et al. 2010) that is away from a linear view of the world and that focuses the attention of today's leaders on the complicated and dynamic character of the world around them (Marion and Uhl-Bien 2001).

Watkins et al. (2017) consider the understanding of the consistent behavior and the concept of complexity to be the most important aspects in the development of a leader. Leaders who realize the nature of complicated systems, who understand well their system of values too, and who have a high level of the emotional intellect can easily adapt to the changing contexts and thrive under uncertainty conditions.

2 Literature Review

The problem of leadership and leadership competencies are well enough studied in the modern scientific literature. Among leadership competencies, many researchers give a special part to the emotional intellect and such constituents thereof as self-cognition, self-management, social awareness, and relations management that enable the leaders to remain calm in difficult situations due to their controlling their own inner condition (Boyatzis 2008).

The early twenty-first century saw the scientific picture of leadership to have been enriched with new approaches, such as the concepts of charismatic and transformational leadership.

Transformational leadership is a quite popular concept of leadership that has been studied both in the educational and the business environment.

Transformational leadership is considered to be a process that changes and transforms both people and organizations (Northouse 1997).

A transformational leader forms an organizational vision that goes beyond the existing systems and practices. It is such a leader who is prepared to risk in order to promote change and innovation.

Bass and Riggio (2006) describe a transformational leader through the total of four "I":

1. Individualized consideration or leadership by means of developing the people. This style of leadership is first of all associated with care shown by the leader to the development of the employees and to their personal interests.
2. Intellectual stimulation or leadership by stimulating the people's thinking. A leader encourages the employees to use their imagination, to think independently, and to look for new creative ways for solving the habitual tasks.
3. Inspirational motivation or leadership by inspiring the people. A leader creates a clear picture of the future that is at the same time optimistic and attainable; he encourages others to raise their expectations level, reduces the complexity by bringing down a problem to key questions, and uses simple language to put his ideas across. With such type of leadership, the followers are ready to make an additional effort trying to implement the idea.
4. Idealized influence or charisma-based leadership. A leader seeks to become a paragon for his employees, so he is in a continuous process of changing and developing himself.

Eliophotou-Menon and Ioannou (2016) have conducted an in-depth analysis of studies about the effect of transformational leadership on such results of pedagogical activity as teachers' satisfaction with their work, teachers' motivation for teaching, and their trust for their manager and commitment to their organization. Owing to building of trust, transformational leadership can produce and produces quite an influence on the change.

According to Webb et al. (2004), transformational leaders focus on the internal motivation, promote the employees' professional development, and help them make

Table 1 Approaches to the development of leadership matching the study activities

Approach to the development of leadership	Types of learning activity
Conceptual understanding	Lectures, reading books and articles, small-group discussions, case studies
Personal growth	Written reflection, group reflection, training
The development of skills	Games, group projects, individual and group presentations
Feedback	Coaching, evaluation

Source: the authors

up the shared vision. Importantly, leaders can promote creativity and learning of the people too (Elkins and Keller 2003; Yukl 1999).

Transformational leadership ensures achieving higher levels of commitment to the organization's objectives in the employees. Within this context, higher levels of commitment are expected to result in higher performance (Leithwood and Sun 2012).

There are various approaches to the development of leadership. Conger (1992) classifies the leadership development programs in four principal areas relying on the following approaches: conceptual understanding, personal growth, skills development, and feedback.

Proceeding from the work by Conger (1992) and Allen and Hartman (2008), the authors have determined the types of learning activity that accord with each approach to the development of leadership in the best way (Table 1).

For many years, active learning has enjoyed the close attention both on the part of theorists and practice specialists.

In the contemporary psychology of learning, many concepts of active learning though stemming from different theoretical approaches seek one and the same goal. Researchers single out the authentic, self-directed, self-managed, independent, autonomous, problem-centered, collaborative, question-and-answer active learning types (Rotgans and Schmidt 2011; Niemi and Nevgi 2014; Aksit et al. 2016).

In spite of difference of their names, all the concepts are united by their emphasizing the development of analytical thinking, meta-cognitive activity, and the problem-solving ability.

3 Research Methods

Objective of the research: to reveal the organizational and pedagogical conditions of the development of transformational leadership competencies in the future teachers in the polycultural educational space.

Object of the research: transformational leadership competencies in the future teachers.

Subject of the research: the process of development of transformational leadership competencies in the future teachers in the polycultural educational space.

In the research, the theoretical methods were also used: contrastive and comparative analysis of the philosophical, psychological, and pedagogical literature on the said problem; systemization and generalization of the scientific data about the definition of the notion “transformational leadership,” as well as praximetric methods (analysis of the results of activity); and the empirical methods (questionnaire survey of the future teachers for finding out the particularities of the higher educational institution’s polycultural space and the pedagogical experiment).

4 Results and Discussion

The contrastive and comparative analysis of the philosophical, psychological, and pedagogical literature on the problem under study has allowed identifying the content-related characteristics of the future teachers’ transformational leadership competencies. They are as follows:

- An ability to implement the individual approach and to care of the development of both students and peer teachers
- Knowing how to intellectually stimulate others via encouraging the search for new creative ways of solving the habitual tasks
- Knowing how to motivate in an inspiring way for students and teachers to understand and achieve the expected goals
- Having the traits of charismatic leadership, an aspiration to be a paragon, to be in a continuous process of changing and developing oneself

The student youth of the North Caucasus Federal District is a multinational and multireligious community.

The research conducted by the authors has revealed that at North Caucasus Federal University, Stavropol State Pedagogical Institute, and its Zheleznovodsk branch, the representatives of about 70 nationalities study. Some 90% (the total of 350 respondents were questioned) of the student youth categorize themselves as believers and are the followers of various religious denominations. Similarly, the study has allowed finding out that students choose their friends regardless of their faith: all of them have Orthodox friends, Muslim friends, as well as atheist, Buddhist, Catholic, and Protestant ones. This gives evidence of the fact that most future teachers know fairly well about the national belonging and religious denomination of their peer students and do not consider this to be an obstacle for friendly relations.

The aspiration of many students to show leadership both in the learning and in the professional activity is quite natural in the polycultural educational space, with the national and religious identity borne in mind. Pedagogical activity is initially oriented to students’ recognizing the authority, leadership standpoint of a teacher, which is reflected in the content of pedagogical education (Igorpulo and Romaeva 2016). Creation of conditions for the development of transformational leadership

competencies as an ability to change by oneself and to motivate others for changing is an important task of the future teachers' training (Igropulo 2016).

The authors believe that in order to solve this task, the efficiency of experiential learning (from English "life experience") should be emphasized. In experiential learning, three main constituents are subdivided: personal experience, its reflexive comprehension, and transformation of the individual's knowledge and ideas. It is to experiential learning that role games, professional activity modeling, training, and so on are referred to. Under such learning, the students directly contact the reality being studied and not merely think about meeting it or about a possibility of "doing something to it" (Buckley and Caple 2002: 209). Most frequently, Pfeiffer-Jones experiential learning cycle is used in the educational activity: experience, publishing, processing, generalizing, and applying. Generally, experiential learning is learning while practicing, reflecting on one's actions and deeds, as well as the analysis of actions and deeds of the people around one. The notion of debriefing, i.e., processing of the experience received, is often used: during it, students have to be helped to realize in what way and to what extent the experience gained correlates their objectives and needs.

So, while studying the subject "Technologies of formation of interfaith tolerance," the students enriched their knowledge and experience by organized communication with clergymen of religious denominations of the North Caucasus – which was not limited by classrooms but had continuation on to mosques, cathedrals, churches, and monasteries (Romaeva and Rotkina 2012; Igropulo et al. 2013). Within the preparation and implementation of the study project "Interfaith tolerance: a harmony in distinctions," students had to find out the urgent needs of the temples and render the relevant assistance. The students' participation in the development, presentation, and implementation of the creative projects, modeling professional situations, promoted the improvement of the leadership skills formation level by developing the crucial component – their ability to reflect both on their own activity and on that of the other participants of the educational process. Meanwhile, the cognitive performance and independence are enhanced too, and conditions are created for personal and professional growth; the skills of planning, organization, control, and adjustment of one's activity are improved, and social and psychological competence in group interaction situations increases. This furthers the development of transformational leadership competencies in general.

However, the students showing a leader's standpoint in their project activity, namely, a wish to organize the required assistance, with both students and the locals involved, were not numerous. The majority of the future teachers treated the project in a formal manner, limiting themselves to the description of problems and possible solution options. This has allowed concluding that a high extent of the transformational leadership competencies' formation is only possible in a limited part of the future teachers, which nevertheless does not reduce the studied competency having to be formed at an average level in the majority of the student youth.

The following important point of the research was the understanding of the fact that the formation of transformational leadership competencies in the future teachers is promoted by the sphere of physical training, in particular, of ethnic sports and

tourism. People are known to get closer in sports grounds without focusing the attention on ethnic and religious factors.

By ethnic sports, various forms of contests and traditional games are understood that promote the spiritual and bodily expression of an individual's adaptation to the cultural and natural environment as well as to formation and reproduction of the ethnic and cultural identity (Kylasov 2009). Ethnic sports help not only mastering the PT skills but also learning the rules and behavior standards, relevant emotional reaction in various situations; they form an ability to perceive and respond to something unexpected and new, which enables one to be a leader not only in a certain kind of corporal motor activity but also in the student community as a whole.

The student environment is an area of saturated interethnic contacts. So, at higher educational institutions of the North Caucasus region, representatives of various ethnic groups study while also being in contact in the diverse systems of world perception and world outlook. During such contacts, both in classrooms and on sports grounds, the students consolidate their leadership skills of mutual understanding and behavior in a polycultural space which will be essential for them in their future professional activity too.

The main means of physical training, tourism, and sports are considered to be physical exercises that influence the ideology of leadership in the polycultural educational space of higher educational institutions. It is the chair of physical training that can and must cultivate and develop the ethnic and leadership skills in the student society of a higher educational institution. Meanwhile, the following rules have to be observed:

- A comfortable and friendly ethnic atmosphere has to be created where each student can feel he or she is necessary and significant.
- A success situation for each student, sports club member, has to be created that promotes reflection, socially relevant self-affirmation in the polycultural student environment, and an aspiration to change and improve.
- Various forms of mass sports, physical training, and recreational and upbringing activity have to be used in which the future teachers can gain the required social experience by trying out various roles, that of a leader included.
- In the student sports club, self-government bodies have to be created as the generally accepted school for forming the leadership competencies, transformational leadership ones as well (Magomedov 2015).

The practice of Stavropol State Pedagogical Institute shows that this work has to be commenced already at the first classes of physical training and sports, when the students almost do not know each other. So the organization of getting acquainted becomes the basis for friendly relations forming in a polycultural group. For it to really take place, a conventional head count is not enough – a small ethnic game is organized – an introduction in which each student tells the class something about him or her. It is also important to develop the rules of behavior and interaction in a sports association together with the future teachers (e.g., “Rules of the sports club”). Thought over and suggested by the students themselves, such rules are usually strictly adhered to by them, without the teacher's having to remind. The traditional

rites are also important for supporting the first steps: a sports club initiation ceremony for the new members, with badges, ties, or sports club emblems handed over to the first year students, learning about its chronicle. A certain place is allocated for discussing the leadership skills too, a leader's ability to change himself and others in order to achieve the set goals.

While participating in sports games, the future teachers do not only have fun but they also create some models of resolving the problem or situation. It is by modeling and playing out various circumstances that the students internally prepare for solving similar tasks in real life. For instance, in Dagestan, they have a popular game "Fighting for kerchief" that used to be a traditional wedding game. The bride's relatives handed over to the bridegroom's friends her kerchief that they had to deliver in his house. The hotheads from the bride's village tried to take the kerchief from them, so they would fight for it. It was considered to be a shame if the kerchief was not brought to the bridegroom's house. The kerchief was also used in another game – they would hang it to a high ceiling and the one who was able to snatch it got the prize. Such competition games, though altered, take place both at the PT classes and at sports clubs.

Therefore, the methods and forms for developing the transformational leadership competencies in students are the events, classes, and situations in a polycultural group organized by PT teachers or others for students to the purpose of direct upbringing influence on them. To this type of events, one can also refer games, trips, and meeting the leaders of various activities.

5 Conclusion

The work conducted by the authors has allowed identifying the organizational and pedagogical conditions promoting the efficient formation of transformational leadership competencies in the future teachers:

- Special tasks oriented to the formation of abilities to identify change in education and to engage other people both from the student and the regional pedagogical community in projects, events, and measures have to be introduced into various subjects of both basic and variable parts of the curriculum.
- The educational resource of experiential learning as student-centered and reflexive teaching of the future teachers has to be used.
- Various forms of ethnic sports, physical training, and recreational and upbringing work in which each student could gain a valuable social experience while trying various roles, including that of a leader, have to be employed.

Thus, the relevant training of the future teachers implies the development of transformational leadership competencies (the abilities to implement the individual approach, to take care of the development of both students and peer teachers; knowing how to intellectually stimulate others via encouraging the search for new creative ways of solving the habitual tasks; knowing how to motivate in an inspiring

way for understanding and achieving the expected goals; having the traits of charismatic leadership, an aspiration to be a paragon, to be in a continuous process of changing and developing oneself), with the resource of a polycultural educational space, in particular, the North Caucasus region one, used for that.

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Leadership in Energy Efficiency of Agro-industrial Production: Regional Aspects



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Abstract In the crisis conditions of the development of the national economy of Ukraine, a vital and urgent problem is the definition of strategic prospects and the improvement of mechanisms for achieving the leading positions of the region in the field of energy efficiency of agro-industrial production. Using the method of estimating energy efficiency according to the criterion “energy efficiency” that synthetically combines the indicators of gross regional product, the amount of energy consumption, and the number of population of the region, the results have been obtained, which in general show the dependence of energy efficiency of the production on the specialization of the regions. Clear distribution by groups according to the indicators of energy efficiency testifies to the high energy intensity and inefficiency of the economy of those areas specializing in the chemical, mining, and metallurgical industries. The regions with significant agro-industrial and recreational specialization in the short-term perspective have very optimistic results. The problems and perspectives of the output of the agrosphere of the Kherson region of Ukraine on the leading positions in energy efficiency were determined. A regional mechanism for managing the energy efficiency of agro-industrial production is proposed. The proposals on the organization and implementation of the complex monitoring of energy efficiency of agro-industrial production in the regions and its analysis at the national level are formulated. The work on monitoring and evaluation is proposed to be carried out in stages: planning analytical work, compilation of informative data, calculating work, development of proposals, and reporting of the results of research to relevant structures. It is proved that the implementation of the

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energy efficiency policy will help to overcome the crisis, as well as to achieve significant growth and stabilization of the economy of the region and the country.

1 Introduction

In the conditions of increased demand for hydrocarbon raw materials being used as a traditional energy source, the transformation of economic, social, and environmental spaces, the reduction of periods of economic stability, and the increase in the degree of uncertainty of economic development require a search for a qualitatively new approach to the issue of the efficiency of energy consumption.

Due to the peculiarities of the development of science and technology, energy resources constitute the crucial prerequisite for the industrial activities, maintenance of good living conditions, or social stability (European Commission 2017; Lisin and Strielkowski 2014; Kljucnikov et al. 2016; Wroblowska 2016; Štreimikienė et al. 2016a, b). That is, actually energy resources are the key to the effective functioning of all sectors of the national economy of Ukraine (Naumov and Naumova 2016; *Stratehiya enerhozberezhennya v Ukraini* 2006).

On the one hand, the agro-industrial sector of Ukraine is a unique entity capable of providing the society with food products, as well as other non-food products, the raw foundation on which agriculture is based. On the other hand, agro-industrial production in Ukraine is very complicated in terms of being provided with energy resources, mainly due to the fact that in the process of its formation, firstly, the peculiarities of energy supply and energy consumption of agro-industrial production were not taken into account and, secondly, too cumbersome and inefficient structure of energy supply for agro-industrial production was formed consisting of tens of thousands kilometers of power lines, heating mains, a large number of enterprises equipped with inefficient technology equipment, and organizations located at a considerable distance, that is, the main principle of the location of agro-industrial objects and energy facilities was not taken into account (Naumov and Naumova 2017). All this directly or indirectly affects the costs of the most important type of resources for agro-industrial production, energy resources.

In addition, territorial imbalances in the distribution and development of agro-industrial production and energy infrastructure determine the need for regional differentiation of measures to support energy efficiency in the industry (Lysnyak 2010; Lisin et al. 2014; Varanavicius et al. 2017). That is why it is extremely important to develop and implement modern scientific and economically sound approaches to managing the efficiency of using energy resources in agro-industrial production at the regional level. In addition, taking into account the nature of the economic complex of Ukraine, namely, the agrarian-industrial orientation of the economy, the definition of strategic prospects, and the improvement of the mechanisms of management of energy efficiency of agro-industrial production can become the engine of the overall economic recovery and stabilization of the economic situation in the regions and the country as a whole.

2 Literature Review

It should be noted that today the strategies of energy efficiency are being given a lot of attention from academics and practitioners at the global, national, and international levels (Afonina 2015; Buchan and Keay 2015). Scientists are extensively exploring the use of foreign experience in creating an energy-efficient economy (Balashova and Gromova 2017) and internationalization of these processes (Dyduch 2015).

Quite often, the issue of modernization of the old and obsolete energy sector emerges. There are many works on how and what to modernize in order to keep pace with the ongoing modernization and sophistication of the energy industry (Zlyvko et al. 2014; Lisin et al. 2015; Dudin et al. 2017).

However, the problems associated with the development and implementation of the models for managing energy consumption in the agro-industrial production at the national and regional levels are not sufficiently studied. In particular, the efficiency of energy consumption was investigated for certain industries and areas of activity (Rodin 2017), or for certain types of energy resources, for example, nontraditional (Prakhovnyk 2008), or only from the point of view of the development of infrastructure without linking to the base branches (Bajcinovci and Jerliu 2016).

The term “agroenergy intensity” refers to the result of economical and managerial, financial activities aimed at obtaining the maximum possible effect of consumption of a unit energy resources for the production of a unit of an agricultural product by developing, implementing, and applying agro-intensive technologies or technologies whose use is aimed at achieving the maximum possible indicators of energy efficiency of agro-industrial production (Anisimova 2014).

Overall, one can clearly see that the management of the efficient use of energy resources in agro-industrial production in the regional aspect needs further study. Therefore, it might become a subject of a more complex and profound research that goes beyond the size and the scope of this very paper.

3 The Purpose and Methods

The generally accepted indicator of the efficiency of consumption of energy resources in the economy of the country (region) is the energy efficiency ratio, which reflects the ratio of market value of all manufactured goods and services rendered within the country (region) per year to the amount of used energy resources (Energy Security Strategy).

Usually, in the analysis of data on the gross domestic product of the countries, the level of energy consumption and the number of population, certain countries show lower absolute values of all indicators (World Energy Council 2016). It is difficult to determine whether energy is really efficiently consumed in such a case. A methodological mistake in calculating the energy efficiency of GDP is taking into account

only GDP of the country, the gross regional product (GRP) of the region, city, etc., and the volume of energy consumed in its production, but this can sometimes be observed in scientific works (Dennis 2006). It is inappropriate to apply such a technique, even for observation in a relatively stable, closed economic field (city, region) for the study of dynamic change (D'Oultremont et al. 2015). The number of population in cities, regions, and countries is constantly changing to a greater or lesser extent. There is no single city in the region where there would be no permanent demographic fluctuations, not to mention the countries. With an increase in the population, it is usually necessary to increase both GDP, as well as absolute energy consumption (Kyrylenko 2010). But if the energy-efficient methods of management were introduced, energy consumption could be somewhat reduced. However, with a simple analysis of GDP and the amount of consumed energy resources, this trend does not appear, although energy efficiency will be observed when converting GDP per capita (Stalynskyy 2007). There is no clear objective link between the volume of GDP and the population, since GDP is influenced by a large number of many other factors, including the structure of the population, the nature of production, and state policy. There is no functional relationship between GDP, the volume of consumption, and population, which we could apply for different states or different time periods and find out how efficiently energy resources are consumed. However, the meaning of the energy efficiency ratio depends on three of these indicators. With the same amount of consumed resources, GDP, but with different population in the region, country, etc., the energy efficiency ratio of GDP will be the same in comparison with another country, but the energy efficiency ratio of GDP per capita at a lower population will be higher if the first country rationally consumes energy resources. This pattern can be traced in any combination and at any level. This means that in some countries one person produces more GDP with the same amount of energy consumption than in another country. Such a country consumes energy resources efficiently (Gryshova et al. 2017a, b). Using GDP per capita when calculating energy efficiency allows us to see how efficiently energy resources are used to produce a unit of GDP by one person in a given closed system, that is, to establish the level of economic energy efficiency of the system.

4 Results and Discussions

In Ukraine, in comparison with other states, all possible instruments of influence on the efficiency of energy resources consumption are realized, namely, there is state control, the system of administrative sanctions is in force, energy regulation is underway, standardization and certification are created, energy-saving funds and relevant state institutions have been developed and implemented; and economic and financial mechanisms of management of energy efficiency still take place (Krut' 2007). Ukraine consumes energy and resources extremely inefficiently and irrationally according to the data from international statistics (BP Statistical Review of World Energy, June 2017). To determine the regional energy efficiency, the gross regional product per capita was used (Table 1).

Table 1 The efficiency of consumption of energy resources by the regions of Ukraine (2016)

Administrative territorial unit	Gross regional product per capita, UAH	Boiler stove fuel		Thermal energy		Electricity		Energy resources of all kinds	
		Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio
Vinnitsa	37,270	2777.6	13.4	352.54	105.7	578.3	64.4	3708.49	10.0
Volyn	30,387	502.7	60.4	225.17	135.0	264.3	115.0	992.21	30.6
Dnipropetrovsk	65,897	22,631.6	2.9	1749.11	37.7	8978.3	7.3	33,359	2.0
Donetsk	26,864	36,071.2	0.7	2543.02	10.6	6989	3.8	45,603.2	0.6
Zhytomyr	30,698	710.2	43.2	247.29	124.1	463.9	66.2	1421.39	21.6
Transcarpathian	22,989	200.9	114.4	71.98	319.4	190.8	120.5	463.7	49.6
Zaporizhya	50,609	8307.8	6.1	774.64	65.3	3790.4	13.4	12,872.83	3.9
Ivano-Frankivsk	33,170	5771.3	5.7	340.9	97.3	473.9	70.0	6586.1	5.0
Kyivska	60,109	3104.1	19.4	542.75	110.7	836.5	71.9	4483.4	13.4
Kirovograd	39,356	646.5	60.9	160.18	245.7	796.6	49.4	1603.3	24.5
Lugansk	10,778	11,235	1.0	1513.18	7.1	3263.7	3.3	16,011.83	0.7
Lviv	37,338	2754	13.6	414.68	90.0	893	41.8	4061.73	9.2
Mykolaiv	41,501	1206.9	34.4	570.1	72.8	633.1	65.6	2410.09	17.2
Odesa	41,682	2519.3	16.5	445.93	93.5	945.9	44.1	3911.09	10.7
Poltava	66,390	3270.3	20.3	604.09	109.9	1485.7	44.7	5360.08	12.4
Rivne	30,350	1457	20.8	541.45	56.1	1070.9	28.3	3069.37	9.9
Sumy	37,170	1471.6	25.3	298.52	124.5	555.1	67.0	2325.18	16.0
Temopil	24,963	419.1	59.6	188.28	132.6	175.7	142.1	783.11	31.9
Kharkiv	45,816	5936.3	7.7	596.69	76.8	1534.7	29.9	8067.67	5.7
Kherson	30,246	406.3	74.4	76.92	393.2	400.5	75.5	883.7	34.2

(continued)

Table 1 (continued)

Administrative territorial unit	Gross regional product per capita, UAH	Boiler stove fuel		Thermal energy		Electricity		Energy resources of all kinds	
		Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio
Khmelnitsky	31,660	1176.1	26.9	247.76	127.8	426.6	74.2	1850.42	17.1
Cherkassy	40,759	2864.1	14.2	592.85	68.8	674.2	60.5	4131.14	9.9
Chernivtsi	20,338	221.8	91.7	75.62	269.0	151.1	134.6	448.49	45.3
Chernihiv	35,196	1107.6	31.8	237.03	148.5	375.4	93.8	1720	20.5
M. Kyiv	155,904	4168.2	37.4	797.49	195.5	1136.2	137.2	6101.89	25.6
Ukraine (GDP)	46,413	4543.2	10.2	546.4	84.9	1406.7	33.0	6496.4	7.1

Source: Authors' results based on the State Statistics Service of Ukraine (2017)

In 2015, the total energy efficiency of production in Ukraine was 7.1 hryvnias. Per capita per thousand tons of conditional fuel consumed for a year in the country.

The obtained results in general show as a whole the dependence of energy efficiency of production on the specialization of regions. Clear distribution by the groups according to indicators of energy efficiency indicates the high energy intensity and inefficiency of the economy of those areas specializing in the chemical, mining, and metallurgical industries. Instead, the regions with a high degree of agro-industrial and recreational specialization have very optimistic results.

The detailed studies of the strategic directions of ensuring the leading positions of the region in the field of agro-energy efficiency were conducted on the example of the Kherson region. Total energy efficiency of production in the Kherson region was 34.2 UAH. per capita per thousand tons of conventional fuel. The analysis of the efficiency of energy consumption in the Kherson region in comparison with the nature of consumption in other regions of Ukraine shows that the energy efficiency of the region's economy is 4.8 times higher than the average one in Ukraine. The Kherson region is one of the regions with high energy efficiency along with Volyn, Transcarpathian, Kyiv, Ternopil, and Chernivtsi. Energy resources are consumed inefficiently in Dnipropetrovsk, Zaporizhy, and Ivano-Frankivsk regions.

The Kherson region produces about 1.25% of GDP and consumes only 0.5% of all types of energy resources. However, 2.4% of the population lives in the region, indicating that there is a potential for increasing the GRP. The enterprises of the machine-building, oil refining, light industry and construction industry were created and extensively developed at the Kherson region of Ukraine. However, agriculture and food industry remained the leading industries.

At present, the situation for producers and processing of agrarian products in the Kherson region is extremely difficult. They actually remained on their own with many problems, in particular – ensuring the efficient use of energy resources.

Since the availability of energy resources and the effectiveness of their use are a significant criterion for the effective functioning of agro-industrial production itself in modern conditions, and these indicators are in direct proportional dependence (Gryshova et al. 2017a, b), the problem of agro-industrial production in the region is worth considering in terms of quantity and quality of consumption of energy resources in agriculture and in the processing of agricultural products.

The clarification of the main problems of the efficiency of energy consumption, as well as the peculiarities of energy supply and energy consumption of agricultural production (as a basic economy of the region) of the Kherson region and the main factors of influence on energy efficiency in the regional conditions, will enable to determine the strategy of further regional and sectoral development.

The Kherson region has a considerable agricultural and industrial potential, first of all, due to the development of the processing industry. Crop production is less energy intensive in the agricultural reproduction and production stage of agricultural production, according to normative data, since livestock production requires preliminary planting costs for the formation of the forage base plus direct costs for the cultivation of animals, except for the costs of feed (Table 2).

Table 2 The structure of expenditures on agricultural production in the Kherson region

	2015			2016		
	Total	Plant growing	Stock breeding	Total	Plant growing	Stock breeding
Costs in general, %	100.0	100.0	100.0	100.0	100.0	100.0
Of these – material costs	60.3	59.0	68.0	62.5	61.2	70.8
Of these – direct expenditures on energy resources	29.6	33.2	11.5	28.4	31.6	11.1
Of these – the cost of petroleum products	87.16	89.76	53.04	90.14	92.72	54.05
Electricity costs	10.47	7.83	44.35	8.80	6.33	42.34
Fuel costs	2.36	2.41	2.61	1.06	0.95	3.60

Source: Authors' results based on the State Statistics Service of Ukraine (2017)

The Kherson region produces 3.73 times more (on average for 2010–2016) grain and leguminous crops than on the average in Ukraine, 2.46 times more sunflower seeds, 3.10 times more vegetables, and 1.08 times more fruits and berries. And the Kherson region does not occupy a leading position in production of livestock products per capita. Meat and eggs of all kinds are produced in the region less than in Ukraine on the average. Thus, the structure of the agricultural reproductive and production stage of agricultural production in the Kherson region is balanced. And, namely, this allows us to come up with good indicators of energy efficiency.

In 2016, total energy consumption for agriculture, hunting, and related services in the Kherson region was by 5.17% more than in 2015 and by 9.18% more than in 2014. In the field of processing of the agrarian products, namely, for the production of food products, beverages, and tobacco products in 2016, it was spent on conditional fuel by 0.59% less than in 2015 and by 13% less than in 2014.

But in general, the state of the processing, production, agricultural, service, and logistical stages of the agro-industrial complex of the Kherson region is extremely difficult, and there is considerable doubt as to whether Kherson region will continue to remain the leading agro-industrial region in view of the constant increase of prices for all types of traditional energy resources and low activity of input of nontraditional energy sources in the energy sector of the region.

The output of the Kherson region as the leader in agro-energy efficiency requires the improvement of the organizational and economic mechanism of strategic management of agro-energy efficiency in the region's economy.

The optimal development of energy-efficient agricultural production is only possible if the market mechanism and state regulation are combined at the national, regional, and local levels. The state support of the energy efficiency of agro-industrial production is particularly relevant given a number of sectoral and territorial peculiarities, namely, seasonality, complicated balance in time and space, instability of the financial situation, as well as the uniqueness of the agro-industrial sector.

An important stage toward the effective use of energy resources in agro-industrial production is the organization and implementation of a comprehensive monitoring

of energy efficiency of agro-industrial production in the regions and its analysis at the national level.

Monitoring and evaluation of work should be carried out in five stages: i) planning of the analytical work, ii) collection of informative data, iii) calculations, iv) development of proposals, and v) bringing of information about the results of the study to the corresponding structures.

At the first stage of the planning of analytical work, it is necessary to determine the purpose and tasks; to develop an urgent plan of performance of works; to determine the sources of information, which will receive the data necessary for conducting calculations; to develop layouts of analytical tables; and to form guidelines.

At the second stage, it is necessary to collect information on the determined sources on the efficiency of energy consumption by agro-industrial enterprises, to verify the reliability of the data, and to ensure the primary sorting of information and the placement of data in the tables prepared at the first stage.

At the third stage, it is necessary to carry out a comprehensive processing of the received data, using statistical calculations, to find patterns between the data, to determine the nature of changes in the indicators of the efficiency of the use of energy resources in relation to the previous periods, to develop a description of the use of energy resources, and to conduct a verbal interpretation of the calculations.

At the fourth stage, it is necessary to develop the proposals for improving energy consumption in agro-industrial production, based on the analysis.

At the fifth stage, it is necessary to make all calculations in a proper way, indicating and deciphering the applied methods and proposals for the improvement, and provide materials for assessing the energy efficiency of agricultural production for informing the agro-industrial producers and the Ministry of Agrarian Policy and Food of Ukraine.

The implementation of these measures in the strategic perspective will ensure the region's leading position in the sphere of agro-energy efficiency (Table 3).

The introduction of energy-saving projects in the agro-industrial production will significantly increase the implementation of the genetic potential of crop and live-stock production and switch to adapted farming systems and the cultivation of environmentally friendly products, an increase in the volume of investment in the industry and region as a whole.

5 Conclusions

The analysis of energy efficiency of production of agricultural business in Ukraine in 2015 showed that the total energy efficiency of production amounted to 7.1 UAH per capita per thousand tons of conditional fuel consumed in just a year. The obtained results in general show the dependence of energy efficiency of production on the specialization of regions. Clear distribution by the groups according to energy efficiency indicators proves the high energy intensity and inefficiency of the regional

Table 3 The efficiency of consumption of energy resources in the Kherson region (forecast)

Period	Gross regional product per capita, UAH	Boiler stove fuel		Thermal energy		Electricity		Energy resources of all kinds	
		Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio	Consumption, thousand tons of conditional fuel	Energy efficiency ratio
Basic state	30,246	406.3	74.4	76.92	393.2	400.5	75.5	883.7	34.2
Forecast 2020	30,855	330.9	93.2	62.7	492.5	326.2	94.6	719.8	42.9

Source: Authors' results based on the State Statistics Service of Ukraine (2017)

economy of those areas specializing in the chemical, mining, and metallurgical industries. Instead, the regions with a high degree of agro-industrial and recreational specialization have very optimistic results.

An important step toward the effective use of energy resources in agro-industrial production is the organization and implementation of a comprehensive monitoring of energy efficiency of agro-industrial production in the regions and its analysis at the national level.

We have developed five consecutive steps to monitor and evaluate the energy efficiency of agro-industrial production in the regions: the first is the planning of analytical work, the second the collection of informative data, the third the calculation of work, the fourth the development of proposals, and the fifth the presentation of information on the results of the study before relevant structures.

For the Kherson region, which is the leading agro-industrial region in Ukraine, the state support in the provision with energy resources at discounted prices is extremely important. At a time of crisis, the state support for the development seems impossible. However, as the experience of leading countries shows, crisis situations are the most favorable period for the introduction of any innovations. The implementation of the energy efficiency policy will help to overcome the crisis as well as achieve significant growth and stabilization of the economy of the Kherson region and in Ukraine.

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Leadership in Energy Security: Behavioral Patterns and Long-Term Energy Intensity



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Abstract In contemporary complex and insecure environment, leadership obtains a new additional role. Directions and ultimate goal of leadership emerges as topical field of practice and theory. Focus gradually shifts from a question “what leadership” to another question “leadership for what ultimate aim.” In the presented research, we will tackle one facet of broad area – leadership for sustainable development. Our aim is to discuss what results could be achieved via such important driving force as leadership for energy efficiency. In order to provide insights, the following approach will be adopted. Long-term energy intensity (until the year 2050) in selected countries will be forecasted, *ceteris paribus* assumption applied. Selection of countries will correspond the aim to compare long-term energy intensity tendencies in currently better developed and less developed European countries. Since the forecasting is based on current technological level of development, we assume that energy intensity change will be determined on behavioral patterns of energy consumption, which are basically determined by strength and efficiency of leadership in energy consumption area. Provided insights will let us generalize on role of leadership in such area as efficient energy use.

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1 Introduction: Leadership, Energy Security, and Energy Use

Leadership affects all areas of life. Role of leadership style and personal features of leaders is rather classical topic, which has been widely discussed in contemporary scientific literature (e.g., Dalati 2016). Meanwhile, there is a comparative lack of attention to questions related to direction of leadership; i.e., what has to be achieved and how to estimate results of one or another way of leadership. We raise a question about role of leadership for energy consumption patterns in long run. Leadership directing toward energy stewardship in long run can affect energy efficiency and, ultimately, have an impact on energy security.

Let us stop briefly on energy security perception. There is ongoing discussion how to estimate energy security. Various indicators' sets are suggested (Tvaronavičienė 2012; Månsson et al. 2014; Narula and Reddy 2015; Corneliu and Tamošiūnienė 2015). Anyway, energy efficiency, which can be estimated by energy intensity indicator, remains one of major determinants of energy security. There is a lot of attention to energy intensity issues in scientific literature (Balkyte and Tvaronavičienė 2010; Konova et al. 2012; Vosylius et al. 2013; Lisin et al. 2014, 2016; Zlyvko et al. 2014; Baublys et al. 2015; Travkina and Tvaronavičienė 2015; Tvaronavičienė et al. 2015a, b; Tvaronavičienė 2016a, b; Strielkowski 2017). Energy intensity of final energy consumption considerably depends on demand, which stems from activity of households, mainly in the area of heating and cooling, and activities of agriculture, industry, services, and mode of transportation. There are two major groups of factors affecting energy intensity in all listed areas: one group of factors can be generally named as “behavioral,” and another group of factors could be named as “technological.”

“Behavioral” group of factors would be influenced by wide array of constituents among which leadership plays an important role. Leadership directly and indirectly affects mode of behavior, while “technological” group of factors would be determined by current level of technological development and level of technological deterioration in various sectors of economy.

2 Research Methodology

Our research methodology is based on the following assumptions: the first assumption is that energy consumption in short run is significantly determined by level of a country's development (Vosylius et al. 2013; Dudzevičiūtė et al. 2014; Anisimova 2014; Kasperowicz 2014; Balitskiy et al. 2014, 2016; Lapinskienė et al. 2014; Strielkowski 2016; Kasperowicz and Štreimikienė 2016) and economic incentives, such as energy prices (Korsakienė et al. 2014; Dezellus et al. 2015; Jefremov and Rubanovskis 2015).

The second assumption is that the use of energy, or energy efficiency in long run (in our research until year 2050), would be determined by level of technological development and social innovations (Lisin and Strielkowski 2014; Ignatavičius et al. 2015; Fuschi and Tvaronavičienė 2016; Tvaronavičienė and Černevičiūtė 2015; Tvaronavičienė 2017; Razminienė and Tvaronavičienė 2017; Leonavičius et al. 2015; Lace et al. 2015; Długoborskytė et al. 2015; Prause 2015; Rosha and Lace 2015; Akhmadeev & Manakhov 2015; Barberis et al. 2017; Carrillo 2015; Cooke 2015; Dobele et al. 2015; Eurostat 2017; Gandini et al. 2017; García-Fuentes & de Torre 2017; Lynch et al. 2017; Oates et al. 2017; Oganisjana et al. 2015; Olaniyi & Reidolf 2015; Passerini et al. 2017; Traversari et al. 2017; Yun et al. 2015). We claim that social innovations, which affect behavioral patterns, are affected by leadership strongly oriented to energy stewardship.

3 Methods and Models

Seeking to reveal long-term tendencies of energy intensities change of we will look at service sectors of two pairs of countries, Denmark and Bulgaria and Finland and Romania. Our aim to juxtapose better developed and less developed European country in order to verify if consistent patterns could be traced. Additionally, we will examine a case of Czech Republic. Czech Republic is not attributed nor to the best developed countries, neither to less developed countries. Hence, we will check if averagely developed countries differ in their energy intensity change patterns. We chose service sector for forecasting, since this sector is the biggest sector in economy of each developed country (versus agriculture and industry), and this sector has permanent tendency of expansion.

Long-term forecasting instrument: for long-term forecasting, we will use LEAP software (Heaps 2016). Currently available statistical data are already incorporated into LEAP software; we need to decide what changeable indicators to choose. There is possibility to make the following assumptions: pattern of change of GDP growth, overall economy's energy intensity change, population growth, and economy structure change, specifically, changes of value-added growth in agriculture, services, industry, manufacturing, and construction. Besides it is possible to set Gini index, transportation mode shares (air, rail, and road), and electric generating capacity (solar, geothermal, hydro, wind, nuclear, thermal, tide, and wave). Hence, we see that a lot of options for multi-variant modeling are provided. In order to set one or another condition, we need to provide respective argumentation. Only in that case obtained scenarios would have appropriate value for decision-makers while choosing one or another economic policy. In our research we have purpose to observe trends in energy intensity of service sector of selected countries in case we maintain current conditions. Therefore, our forecasting is based on current trends, and we use *ceteris paribus* assumption, as it was already indicated. Of course, there are research limitations, since conditions can change and then our forecasting would not provide

sufficiently precise trends. Anyway, we believe that modeling should be the next step, which followed after trends based on ceteris paribus assumption is analyzed and interpreted. Long-term forecasting results for selected countries are provided in Figs. 1, 2, 3, 4, 5, 6, 7, and 8. Let us interpret obtained results.

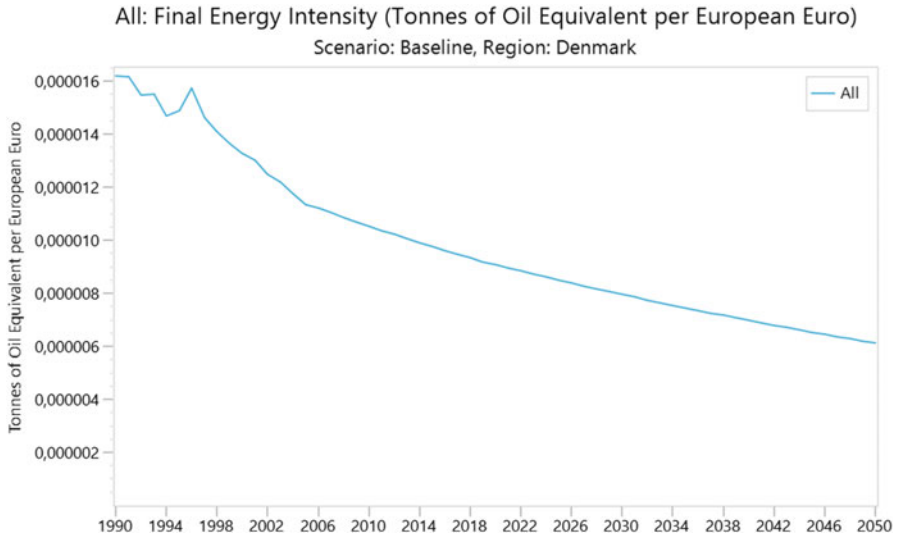


Fig. 1 Change of energy intensity of Denmark service sector until year 2050 (tonnes of oil equivalent per European Euro)

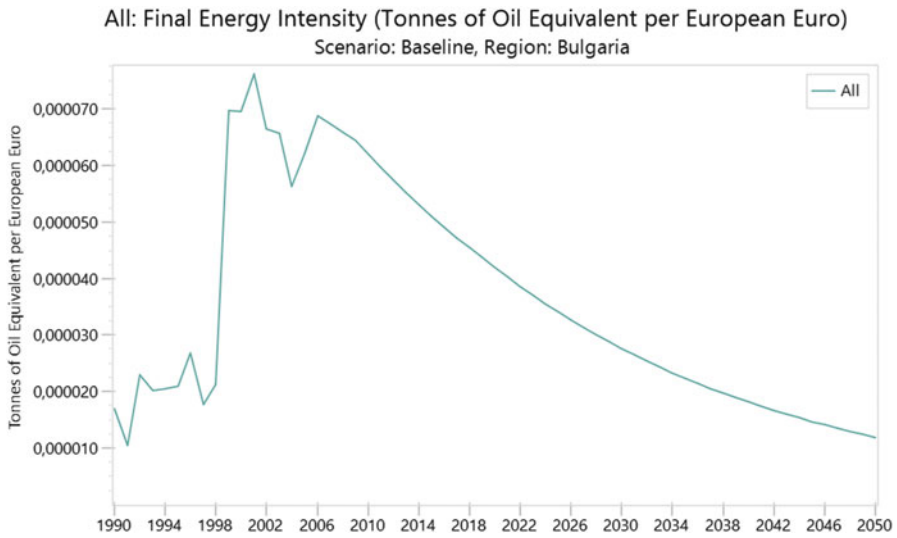


Fig. 2 Change of energy intensity of Bulgaria's service sector until year 2050 (tonnes of oil equivalent per Euro)

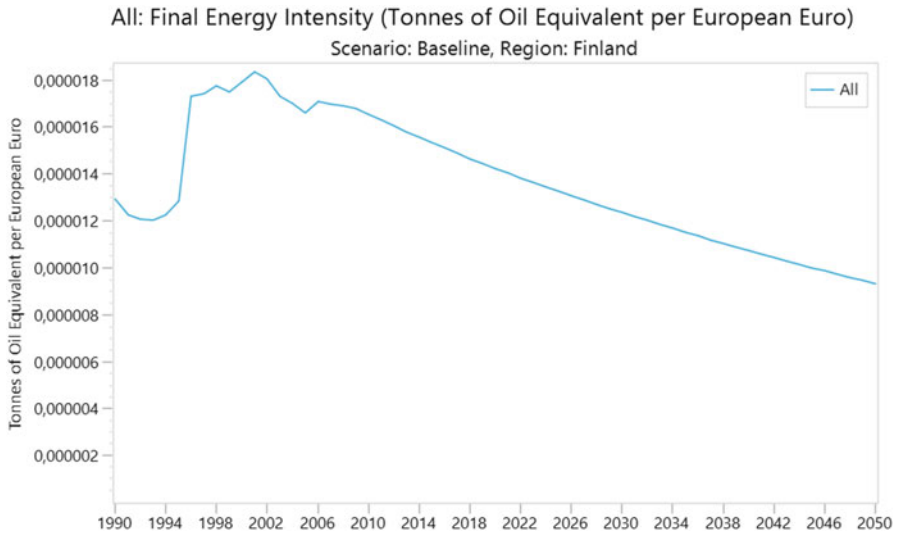


Fig. 3 Change of energy intensity of Finland service sector until year 2050 (tonnes of oil equivalent per Euro)

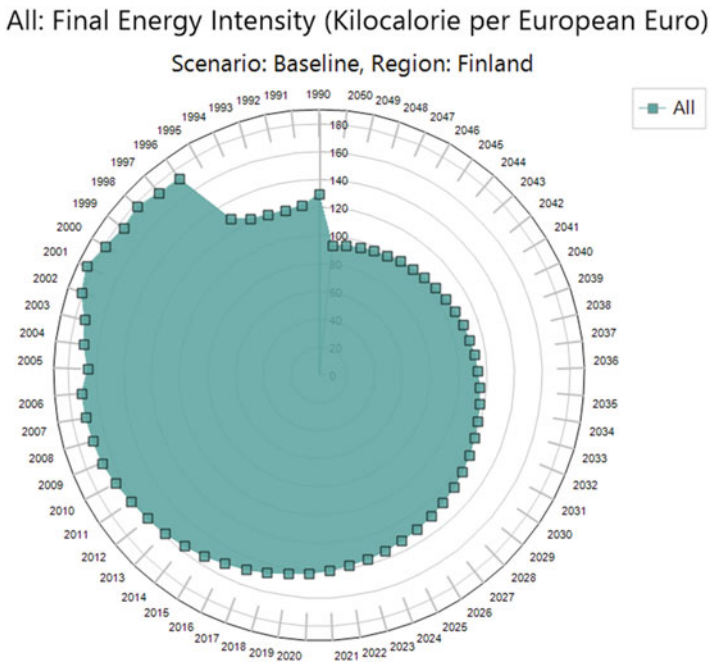


Fig. 4 Change of energy intensity of Finland service sector until year 2050, radar reflection (tonnes of oil equivalent per Euro)

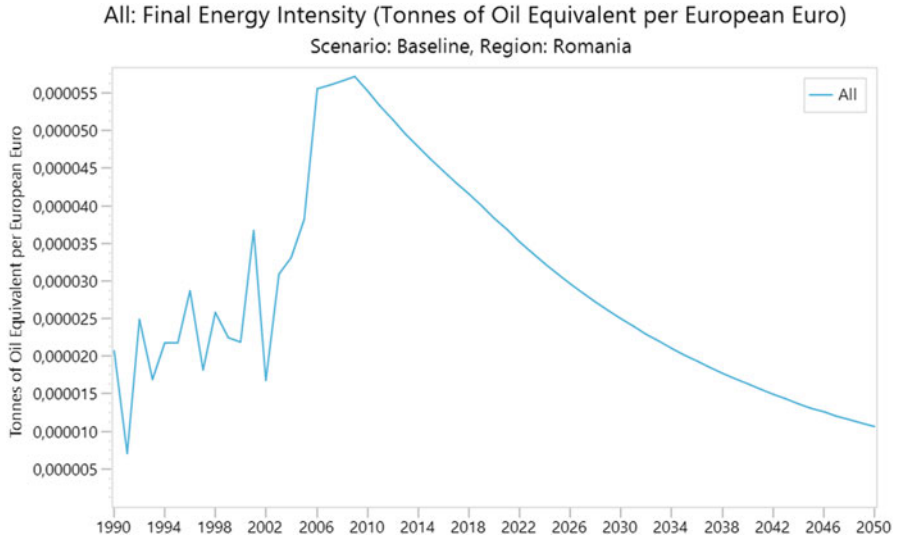


Fig. 5 Change of energy intensity of Romanian service sector until year 2050 (tonnes of oil equivalent per Euro)

All: Final Energy Intensity (Kilocalorie per European Euro)
Scenario: Baseline, Region: Romania

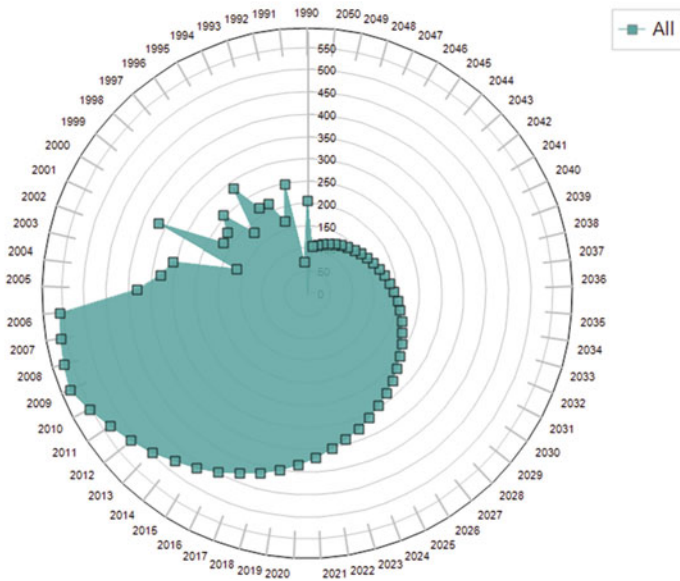


Fig. 6 Change of energy intensity of Romanian service sector until year 2050, radar reflection (tonnes of oil equivalent per Euro)

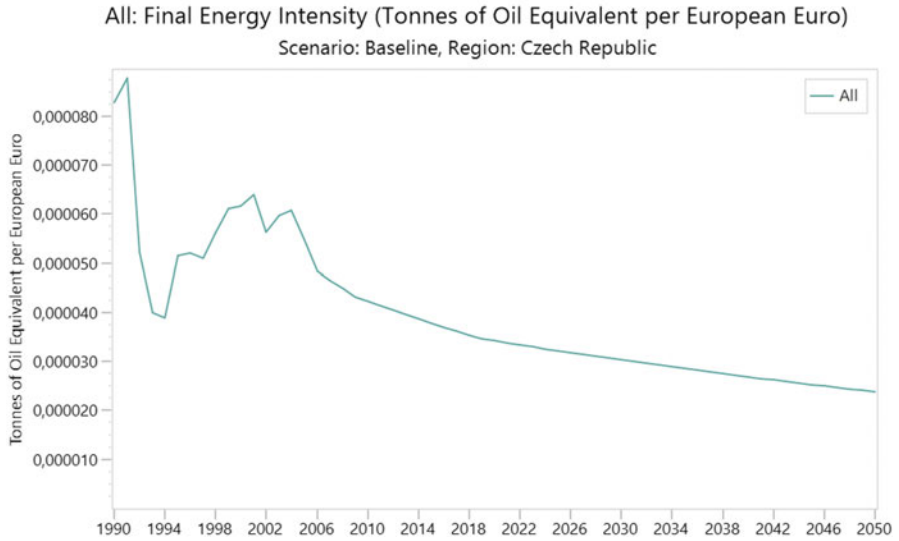


Fig. 7 Change of energy intensity of Czech Republic service sector until year 2050 (tonnes of oil equivalent per Euro)

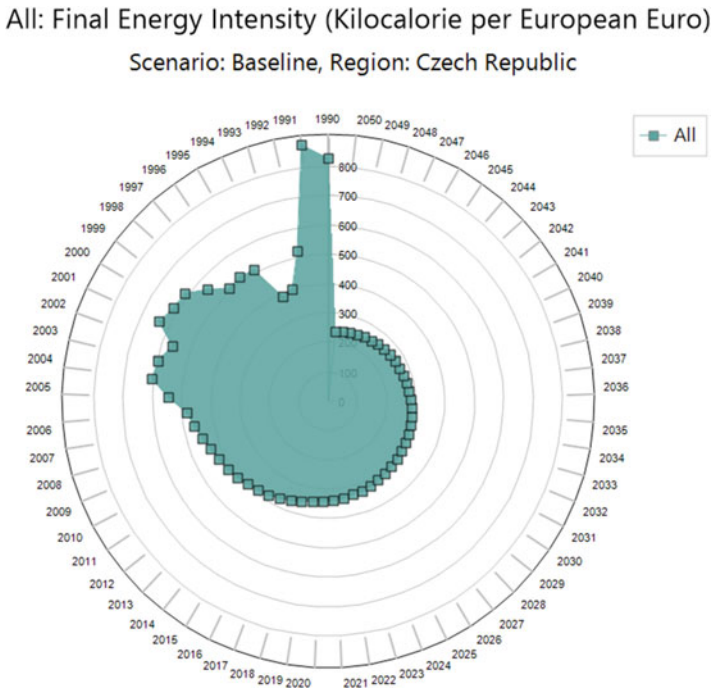


Fig. 8 Change of energy intensity of Czech Republic service sector until year 2050, radar reflection (tonnes of oil equivalent per Euro)

Looking at the results, it becomes apparent that a comparison of Denmark service sector energy and Romania's service sector energy intensity lead us to very interesting results. We clearly see that energy intensities considerably diminish in the long run in both countries – Denmark (Fig. 1) and Bulgaria (Fig. 2).

What is peculiar is that slopes of energy diminishing in the long run differ in currently much better developed Denmark and currently less developed Bulgaria. Bulgaria demonstrates much faster and intensive energy intensity decrease. In this effect, we can claim that obtained tendency supports our assumption that energy intensities would demonstrate different tendencies of change in more developed and less developed countries. Hence, increase in energy efficiency estimated in energy intensity indicator actually is a result of behavioral changes, mostly, since *ceteris paribus* assumption has been applied.

In order to verify if revealed peculiarities of energy intensity change can be recognized as consistent patterns, let us juxtapose cases of Finland (Figs. 3 and 4) and Romania (Figs. 5 and 6).

For the second comparison we introduce additional Fig. 3, which reflects the same data as Fig. 2 with the single difference of graph type: in Fig. 3 we use radar reflection in order to reveal better mode of energy intensity change. It is the same combination of figures we use for Romania (respectively, Figs. 5 and 6).

Comparisons of Finland and Romania's service sectors energy intensity change allow us to conclude that consistent patterns of energy intensity change in long run have been revealed: due the behavioral change less developed countries in long run would demonstrate higher rates of energy intensity diminishing if to compare to currently better developed European countries.

Additional introduction of case of Czech Republic verifies obtained consistent patterns of energy intensity change in the long run, given current level of technological development. Let us contemplate on role of leadership in revealed phenomena. Clustering of different market participant, such as business companies, universities, public institutions, nonprofits, society, and others, would contribute to behavioral change in all range of areas, including energy use (Tvaronavičienė et al. 2015a, b; Tvaronavičienė 2016). Alas, all those processes have to be initialed and led by appropriate leadership. Therefore, the role of leadership in the long run will grow and will emerge as important driving force pushing toward more sustainable future.

4 Conclusions

Leadership obtains increasing role in various areas, including patterns of energy use. Leadership should be evaluated through resulting factors taken in long run.

By focusing on energy consumption area, we revealed the following consistent patterns for long-run energy intensity change for currently more and less developed European countries (forecasting was performed for service sectors, specifically): first of all, it appears that less developed countries would demonstrate intensive diminishing of energy intensities. Second, it becomes apparent that more developed

countries would diminish their energy intensities, alas, in lower pace if to compare with currently less developed European countries.

The revealed general tendencies will be determined considerably by behavioral change oriented to energy stewardship. All in all, one might conclude that leadership would play the major role.

Among the research limitations there might arise are the factors impacting energy efficiency which we measure in energy intensity indicator while we are focusing on behavioral change mainly.

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Energy Development of the South Caucasus Countries and the Benefits of Eurasian Economic Union



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Abstract This paper assesses the current state and prospects of the leadership and development of the energy sector of the Republic of Azerbaijan, Republic of Armenia, and the Republic of Georgia in the context of historical experience, factors that influence the international specialization of these states, integration processes which take place within the framework of the EAEU and CIS, policies of the leading Western countries in the region, and conjugation of the EAEU and SREB. The authors believe that currently there is an objective need for the countries of Transcaucasia (the participants of the EAEU/CIS) to harmonize positions in the frameworks of development and implementation of energy policy in order to counter the modern challenges and threats and to enter the path of sustainable development. Authors' generalizations, suggestions, and recommendations can be used by the governmental agencies and other institutions and scientific, expert, and business community in the frameworks of the development of analytical and conceptual documents.

1 Introduction

There is no doubt that South Caucasus represents the important geostrategic center of the continent which is located at the junction of Europe and Asia. The countries of the region are linked by a complex centuries-old history of bilateral and multilateral

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relations and interaction with Russia, Turkey, Iran, and other states (Anisimova 2014; Balitskiy et al. 2016). The specifics of Transcaucasia make it possible to single out the Republic of Armenia, the Republic of Azerbaijan, and the Republic of Georgia in a separate group of independent states. This group is a target of the energy policy of the leading Western countries, Russia, and other participants of the EAEU and the CIS.

For many decades the Transcaucasian republics took a part of the single national economic complex of the USSR. Their development was carried out within the framework of state plans. These plans were aimed at:

- Harmonizing the output of goods in related industries, as extracting and processing industries, agriculture, and transport sectors, taking into account the possibilities for financing and material support
- Optimizing the regional location of enterprises to eliminate long-range and counter shipping and approximating the capacities to sources of raw materials and areas of consumption of products (Council of People's Commissars of the USSR 1938)

The centralized planning method, on the one hand, was strengthening the sectoral specialization of each of the considered republics; on the other hand, it was strengthening the interbranch cooperation in the region and the country as a whole (Cornillie and Fankhauser 2004; Konova et al. 2012; Zlyvko et al. 2014; Lisin and Strielkowski 2014; Lisin et al. 2015).

In the early 1990s after the collapse of the multilevel ties system, the new sovereign states have begun to build an energy policy based on the available factors of production, domestic demand, and foreign trade preferences taking into account the national and ethnic conflicts (Lisin et al. 2014).

Currently the economies of the South Caucasus countries stay interdependent. They are compelled to make compromises both in the course of solving their own energy issues and problems and in implementing the Eurasian-scale projects. In historical retrospect, the economic component of the regional policy of the modern Russia has remained weak and has not contributed to the rapid restoration of economic ties on a pragmatic basis.

Today there are prerequisites for our country and other EUEA/CIS member states for moving forward to more active actions to “tighten” space on the outer contour, to uphold and advance their energy interests in the Caucasus region and in the world overall.

2 Energy Sector in the South Caucasus Countries

Let us consider the situation in the energy sector of the South Caucasus countries in order to identify the main directions of the energy policy of Russia and its partners.

2.1 Republic of Armenia

There is no hydrocarbon production in the Republic of Armenia. Some experts believe that oil and gas deposits can be located on the territory of the country, the extraction of which will be able to cover the domestic needs.

In 1994, the employees of “US Geological Survey” concluded that 44 million tons of shale oil is concentrated in Aramus region. In 2005, new studies allowed to increase this figure up to 145 million tons (the structures in Ijevan, Shamut, and Germanis were explored, which are capable to contain about 17 million tons, and in Dilijan 28 million tons) (Neftegaz 2016).

In 2007, the Canadian company Vangold Resources Ltd. began to study the oil and gas structures. In 2012, the Ministry of Energy of Armenia and the concern “International Minerals and Mines” (USA) signed a memorandum on research in the sphere of production of shale raw materials.

It should be noted that the development of fossil fuel deposits is associated with the high environmental risks due to the specific geological structure of the territory and problems in the field of logistics. Currently, the basic energy resources of the Republic of Armenia are the atomic energy and water energy (Mavrakis et al. 2006).

The basis of the generation sector is the Armenian Nuclear Power Plant (about 40% of the total production), ten hydroelectric plants which are part of the Vorotan and Sevan-Hrazdan cascades of HPPs, as well as two thermal power plants “Yerevan TPP” and “Hrazdan TPP” (Marjanyan 2016). These facilities are characterized by a high level of depreciation of capacity, so the main task for the country in the near future is modernization and creation of the new power plants.

The SHPP and other RES stations are complementary but important sources of generation from the point of view of power supply of individual villages and remote consumers. They have been built in the last decade. These facilities, along with large CHPs, belong to the category of stations with a “high” tariff. It means that they generate more expensive electricity in comparison with nuclear power plants and hydroelectric power stations.

In March 2014, the government decided to continue using the single reactor of the ANPP because of the delay in the construction of a new nuclear power unit. In 2017, Russian and national specialists plan to start maintenance and modernization of the plant in order to extend the period of its operation for 10 years.

The phased replacement of obsolete turbines is carried out at the thermal power plants. The new capacities are more efficient, but the return on investment and the use of natural gas do not allow having a low electricity tariff.

The HPP of the Vorotan cascade is owned by two of the companies in the USA and can be reconstructed in the period up to 2040. The HPP of the Sevan-Hrazdan cascade is operating mainly in the irrigation mode. This HPP is controlled by PJSC “RusHydro”, which is implementing a comprehensive repair program for the period up to 2020.

The country has plans for the development of the renewable energy sector and energy saving. Currently, the parameters of the hydro potential are under

elaboration, an atlas of solar insolation is in the process of compilation, the “point” projects for the construction of wind turbines are in the process of implementation, and the energy audits of industrial facilities, commercial buildings, and structures are carried out.

Armenia’s energy sector is closely connected with the analogous sector of the Russian Federation. The harmonization of the development strategies of energy and related sectors is needed in order to increase the efficiency of the joint work of state and private companies of the EAEU countries.

The Republic of Armenia has possibilities for exporting electricity to neighboring countries. The expansion of generation capacity and networks in the direction of North-South is required in order to ensure foreign supplies. The development of the electricity sector will also improve the efficiency of the parallel operation of the electric power systems of Russia, Armenia, Iran, and Georgia. The projects on expansion of national electricity export and gas transit may be implemented during conjugation of the EAEU and SREB.

Today the Republic of Armenia and China have agreed to develop strategies for the coal and gas thermal power stations and trunk power lines construction. The power lines might be installed on the territory of Armenia in the direction to Georgia and Iran. It is assumed that the gas CHP will use Iranian gas and Russian fuel, which is currently supplied to Armenia at preferential prices. Part of the generated electricity can be used in neighboring countries, especially on those infrastructure facilities which provide transit of goods along the southern routes of SREB, for example, the infrastructure facilities of the deepwater port of Anaklia in Georgia.

There is possibility for development of the gas pipeline network, which will ensure transit of fuel along the route Iran-Armenia-Georgia-EU market. In the long term, the Iran-Armenia pipeline for transportation diesel fuel and motor gasolines to Transcaucasia and the EU can be built. These projects are assessed as attractive for the EAEU and China from the economic and geopolitical point of view.

There are priority projects in the energy sector of the Republic of Armenia, the implementation of which will strengthen the integration processes of the EAEU, as well as the integration of the facilitation of the EAEU and SREB:

- “Extension of operation period of the Metsamor NPP” and construction of a new nuclear power unit
- “Construction of the Meghri HPP” (the work was started in 2012), as well as power plant construction near the city of Lori-Berd and Shnokh
- “Construction of a power transmission line Armenia-Georgia,” “Construction of a power transmission line Armenia-Iran”
- “Expansion of the capacity of the GTS Iran-Armenia”
- Development of renewable energy sector, energy efficiency (according to the country’s strategic documents, the projects are considered in accordance with the procedure established by law)

Synchronization of the EAEU countries’ energy policy in the framework of regional problem solving, as well as pairing EAEU-SREB, will have a positive impact on Armenia’s economy, the integration processes in the EAEU, as well as

strengthening economic ties in the region and on the outer contour of the Caucasus (Matveyev 2017).

2.2 *Republic of Azerbaijan*

The main hydrocarbon reserves of the Republic of Azerbaijan are concentrated in the Caspian Sea. Offshore structures are highly prosecuted for oil and gas, therefore in the long term the new large and relatively accessible fields will be opened unlikely (Nuriyev 2008).

The main problems of the commodity sector are the depletion of the resource base and the complexity of exploration of the new offshore deposits due to the lack of agreements with third countries on the delineation of the Caspian Sea.

Azerbaijan has the opportunity to use renewable resources. The largest energy potential is concentrated in the sectors of wind and solar energy. The development of renewable energy sector and energy efficiency require large-scale investments and support from the state, which is difficult to realize since the world market conjuncture is weak and energy prices are low.

The economy of the country is based on oil and gas industries and transport sector that provide the export of energy resources. In the recent history of Azerbaijan, the domestic oil production reached its peak level in the first decade of the twenty-first century. After that there was the stage of “falling” production, since there was a reduction of the reserves of the field Azeri-Ciraq-Gunesli, which is the main resource base of the industry. In the period up to 2030, the volume of extraction of the liquid fuel will likely decrease by 2.5–3 times, which will lead to reduction to a minimum of the export potential of the industry or Azerbaijan’s complete refusal to export oil in order to meet the growing domestic demand.

Gas production sharply increased in the second half of the 2000s. At the same time, the development of the Shah Deniz gas condensate field was at the first phase. This was associated with the implementation of costly measures in order to increase and stabilize recovery volumes.

The main task of the government of Azerbaijan and the consortium “AIOC” is to hold the average annual gas production up to 2019–2020 (the time when the second phase of works in Shah Deniz-2 will be done) and at the level of 8.5–9 billion cubic meters. It is needed in order to ensure exports and the needs of the national economy.

At the beginning of the third decade, with a favorable combination of circumstances, the production of raw materials may reach 34–35 billion cubic meters and – according to optimistic estimates – up to 40 billion cubic meters per year. It is possible that this figure will be fixed at the maximum level for 2–3 years. After 2025, the decline in production for about 5–10% per year will be seen.

The new export pipelines of the country were laid across the territory of Georgia and Turkey. Separate sections of main pipeline systems are exposed to risks associated with instability of the political situation in the regions of Nagorno-Karabakh, South Ossetia (controls 1.5 km of Baku-Tbilisi-Ceyhan pipeline).

In the period until 2020, the modernization of national gas transmission capacities is planned within the framework of the EU plan for the creation of the Southern Transport Corridor. The works are synchronized with the development of new deposits, according to the second phase of the Shah Deniz-2 project.

In the 1990s, the West offered to Azerbaijan the financial and technological support to international oil and gas corporations and other foreign entities in case if Azerbaijan will harmonizes its foreign policy in the economic and other spheres, including the military sphere with interests of the West.

With reliance on the USA and its allies, the Republic of Azerbaijan intended to solve several key tasks: to resolve the situation in Nagorno-Karabakh by preventing its separation, consolidate its position in Transcaucasia, enter to the track of sustainable economic development, and become more prominent participant in the world oil market. The pro-Western vector of Azerbaijan's policy corresponded to the geopolitical interests and intentions of the leading Western states, which legally, financially, and verbally "fueled" the hopes and energy ambitions of the country.

In the 2000s, the country moved to a more balanced energy policy for various reasons (due to the tough position of the leading Western countries toward Iran, the strengthening of the influence of nongovernmental organizations on the domestic political situation, the depletion of the resource base, etc.).

So, the analysis of the oil and gas sector development of Azerbaijan shows that the Western states have sought and continue to use the situation in the country and the Caucasus as a whole in order to achieve greater geopolitical goals: deterring Russia, slowing down the integration processes in the EAEU, "strangling" Iran, promoting the interests of world TNCs in international market, counteracting the consolidation of the largest gas-producing countries, and expanding payments using national currencies (in energy and other goods trade).

The oil and gas industries of the country are developing on the basis of an extensive method of management. The production growth directly depends on the commissioning of new hydrocarbon deposits. In this regard, even in a favorable world situation, the oil and gas prosperity of the state is limited to several decades.

Actually, the Republic of Azerbaijan conducts a balanced energy policy, based on an adequate assessment of the international situation and its own capabilities in order to avoid ideologizing interstate relations and infringing the national or religious characteristics of partner countries. The activities of the Azerbaijani government are aimed to build pragmatic and friendly relations with all participants of the oil and gas markets as producers and consumers of primary fuel and energy resources, as well as the states which are involved in the transit of energy resources.

Azerbaijan strives to strengthen its positions in the market of the countries of the united Europe, to develop mutually beneficial cooperation with neighboring extractive states as Russia, Kazakhstan, Turkmenistan, and Iran, which can support energy exports to the world markets using existing and future capacities.

The country cooperates with the CIS member states and studies the experience of the integration of the EAEU; however, the confrontation in Nagorno-Karabakh still hinders the process of rapprochement with the union. At the same time, the accession

of the Republic of Azerbaijan to the EAEU will help mitigate the opposition of the parties in this long-standing conflict.

Azerbaijan aimed to ensure a balance in the international energy policy and to keep working relations with Russia. It led to an increase in external pressure on the government of the country. For example, in the current decade, the leading Western countries pointed to (1) the limited resources of the Caspian shelf and the “unrealistic expectations” of investors of the oil and gas sector (these statements were made on the basis of data on reserves obtained in the 1990s) and (2) the complexity of the work of foreign companies in the “authoritarian” regime.

It is possible that further attempts will be made to destabilize the internal situation with the use of a set of measures. In particular, among the countries of Transcaucasia, the Republic of Azerbaijan is an attractive geopolitical target for the terrorist groups, which are suppressed by Russia and the forces of the international coalition in the Middle East.

2.3 Republic of Georgia

In the Republic of Georgia, there are no large hydrocarbon reserves, despite the fact that the country is located near regions that have rich fossil fuel deposits.

Low-tonnage production of oil and gas (in extremely small volumes) is carried out in mature small deposits, and it is characterized by instability of recovery volumes and high cost and poor quality of raw materials. Prospects for the development of the national production sector are still poorly understood (Georgia Department of Economic Development 2017).

Due to the volume of its own production of oil, the country could provide raw materials not only for the domestic needs of the chemical industry but also for the transport sector. However, Georgia lacks large-scale processing of raw materials. The main share of the official market of oil products takes imported raw materials.

The traditional suppliers of gasoline and diesel fuel are Azerbaijan, Romania, and Bulgaria, to a lesser extent Greece and Turkmenistan. In 2016, Russia became the second largest importer (after Azerbaijan), having won price competition with other fuel producers.

The volumes of gas extraction are extremely small. For this energy resource, the dependence of the national economy on imports is nearly 100%.

The Republic of Georgia possesses industrial reserves of stone and brown coals. Their extraction is profitable in individual mines. The use of solid fuels is hampered by the low level of development of the coal infrastructure. Ever since the Soviet times, the national heat and power engineering and utilities were reoriented to the burning of liquid and gaseous energy resources, which are supplied from neighboring regions. The country's dependence on foreign supplies of coal is at the level of 55%. The coal industry is interested in obtaining fuel gasification technologies that allow to use the low-grade solid fuel and without a significant cost to obtain a wide range of ash and slag waste products (Lussac 2010).

The EU countries and their geopolitical partners look at Georgia as an important link in transport communications, which lay outside the territory of Russia. The country is part of the strategic “Southern Energy Corridor” and regional routes, which lay mainly from the north to the south. Transit infrastructure includes marine terminals, main gas and oil pipelines, railways, and intersystem power lines. The further involvement of Georgia in the international energy supply schemes and the reduction of the country’s dependence on the export of primary fuel and energy resources are in the interests of the EU and the USA.

Georgia focuses on the development of transport, services, and logistics, which are important sectors of the economy in terms of filling the state budget.

Modernization of the national gas transportation system is a priority. The construction of UGS is planned, which can be used not only in order to create commercial gas reserves but also for participation in various supply chains, for example, in exporting raw materials from Iran through Armenia, as well as in exchange operations that involve Iran, Russia, Turkmenistan, Armenia, and other countries.

Georgia supports following international transport projects: “TAP”, “TANAP”, “WS”, “EAOTC”, “AGRI”. In the course of their implementation, a gas processing plant and an LNG terminal may be established on the territory of the country.

The medium and small hydroelectric power stations (most of which are able to function in a year-round mode) play the main role in the national electric power industry. The hydro potential is mastered by about 25%, so Georgia has natural capabilities to create 30–40 GW of additional capacity. About one fourth of the total production of electricity falls on thermal power plants.

The Republic of Georgia has outlined plans for the development of decentralized energy system, which will be based on water energy (small and micro HPPs), wind and solar energy, geothermal energy, and peat. For the development of this sector, it is expected to attract foreign investment.

The electric power industry of the country mainly provides stable electricity supplies to the domestic market due to its own production and flows from neighboring power systems.

In the medium term, it is planned to increase the capacity of HPPs and trunk transmission lines in order to increase the reliability of energy supply to domestic consumers and increase the export of “clean” energy. The priority areas for electricity supply/transit are Turkey, the countries of the EAEU (Russia and Armenia), and Azerbaijan. In the long term, Georgia intends to consider the possibility of joining the common EU network.

The development of the country’s energy economy is supported by international large financial institutions, including “European Bank of Reconstruction and Development,” “International Finance Corporation,” “Asian Development Bank,” and “European Investment Bank,” US special organizations “USAID” and “Millennium Challenge Corporation,” and national funds of Georgia “Partnership Fund,” “Georgian Energy Development Fund,” “Georgian Co-Investment Fund,” etc.

The main vector of the Georgian policy is directed to the European Union, North America, and Asia. Among the priority country markets are Germany, Great Britain,

France, USA, Canada, China, Japan, Republic of Korea, Israel, Switzerland (11 countries in total) (The Georgia Department of Economic Development).

Georgia and the EU signed an association agreement, which began operating in July 2016. Georgia forms a system of preferential trade agreements. As of the first half of 2017, the country had the right of free trade with Turkey, CIS countries, and EFTA (Switzerland, Iceland, Norway, and Liechtenstein). There was a preferential export regime in respect to the USA, Canada, and Japan. In the future, the country can be included in the EU free trade zone. In October 2016, Georgia became an associate member of the Energy Community, and in 2017, it may become a full member of this organization. This means that in the future the country will further adhere to the EU energy policy.

The policy of Georgia is aimed at further integration into the regional and international energy supply systems and turning the country into a regional leader in the fields of transit and logistics.

Based on the geographic factor and foreign capital, Georgia plans to expand the transit flows in the latitudinal direction, to integrate more deeply into the transport chains leading to the EU. In this regard, the priority tasks are to increase the carrying capacity of roads and railways, pipelines, intersystem power transmission lines and distribution networks, and coastal infrastructure, including by building the deepwater port of Anaklia.

The cooperation between Georgia and China is actively developing. In May 2017 an agreement on establishment of the free trade zone was signed. This agreement will exempt from import duties of more than 90% of export of Georgian products. The corresponding agreement will come into force after ratification by legislative bodies of both countries. Companies from China plan to implement in Georgia the several major projects in the chemical, petrochemical, food, light, construction, and production of construction materials and related industries. Chinese “Dongfang Electric Co.” and “China Tianchen Engineering Co.” are considering the establishment of the coal and gas thermal power station.

Developing the interstate cooperation, Georgia demonstrates political pragmatism and flexibility, focusing on the principle of “business as usually” in the absence of discrepancies with its foreign policy partners.

During the unfolding of the SREB project, the role of Georgia in Transcaucasia can become one of the key. This is facilitated by following factors:

1. A favorable geographical location with an access to the Black Sea coast
2. The availability of transport infrastructure, the development of which is supported by the world’s largest economies and leading international institutions
3. The implementation of the project of creation of the free industrial zone and deepwater port of Anaklia which will be capable to accept vessels of deadweight up to 150,000 tons
4. Georgia’s involvement in the transit of oil and gas to the EU countries and the electricity network in the direction of Turkey, Russia, and Armenia
5. Smoothing relations with Russia and tendency to develop the joint economic projects with the EAEU countries

6. The development of cooperation with Iran, including in the field of transit “from the Persian Gulf to the Black Sea”
7. The formation of an extensive system of preferential or free trade (with the CIS and EFTA member countries, with Turkey, China, the USA, Canada, Japan, and the European Union)

In the framework of the EAEU-SREB interface, Georgia is of interest as a platform which can provide transit of cargoes, in particular, energy carriers in the latitudinal direction within the southern corridor of the SREB.

One of the promising areas of cooperation between the EAEU, China, and Georgia is the electric power industry specially the transfer of electricity to long distances and the formation of the “southern belt” of the energy network in the space from Greece and Italy to China and Japan (with the purpose of using longitude effect) using DC transmission technologies.

Deepening cooperation between Georgia and the EAEU countries will allow Russia and Kazakhstan to expand their opportunities to participate in the supply of gas, oil, and petroleum products using regional infrastructure.

3 Conclusions and Discussions

In the 1990s, the Republic of Armenia, the Republic of Azerbaijan, and the Republic of Georgia chose various ways of socioeconomic development and foreign policy priorities. At the present time, nevertheless, their geopolitical and economic dependences are sustained, and the energy dependence is strengthened. Countries are forced to seek opportunities to implement joint projects and take into account the interests of external participants of the energy market.

The situation in Transcaucasia is significantly influenced by the energy policy of the European Union and its partners, which is aimed at securing the extraction and transit of energy carriers in order to diversify the supplies of fossil fuels and reduce dependence on Russia. In the medium term, the EU proposes to expand the capacities of the existing main pipelines and build new transportation systems which form the Southern Transport Corridor. As the suppliers of oil and gas, the European Union considers the countries of the Caspian region and Central Asia. In the longer term, it is possible to create a DC and AC transmission lines for long-distance transmission of electricity in the latitudinal direction.

The Republic of Armenia does not have fossil fuel reserves. The basic energy resources are nuclear and hydropower. The country receives gas, oil, and oil products from its partners in the EAEU. Armenia’s electric power industry has export opportunities. The increase of the capacity of the national generating sector and creation of the trunk power lines in the direction of North-South is required in order to export of electricity. The development of the country’s network economy also will help to increase the efficiency of the parallel operation of the electric power systems of Russia, Armenia, Iran, and Georgia.

Armenia has a good transit potential which is based on geographical factor. It is possible to organize the transportation of gas from Iran in the direction to international markets through the territory of the country. Specific projects, which are considered by the author in this article, could take a part in companies from the countries of the EAEU, China, and other states.

The economy of the Republic of Azerbaijan is experiencing difficulties in conditions of unstable world oil prices. The oil and gas industry develops on the basis of an extensive method of management. The growth in production depends on the commissioning of new fields, but their number is limited. The main problems of the sector are depletion of the resource base and the complexity of studying the new offshore deposits due to the lack of agreements with third countries on the delineation of the Caspian Sea. In case when other things are being equal, the period of oil and gas well-being of the state is limited by two nearest decades.

In the 1990s, the vector of the energy policy of the Republic of Azerbaijan was directed mainly to the West. Currently, Azerbaijan strives to pursue a balanced energy policy taking into account the positions of the EAEU countries, Iran, and China, to build pragmatic and friendly relations with all participants of the oil and gas markets as producers and consumers of primary fuel and energy resources, countries which involved in the transit of energy resources to the EU along the southern corridor.

Azerbaijan cooperates with the CIS countries and studies the experience of their integration; however, the confrontation in Nagorno-Karabakh continues to restrain the process of rapprochement of the country with the EAEU. At the same time, the accession of the Republic of Azerbaijan to the EAEU will help mitigate its confrontation with Armenia in this long-standing conflict.

It is possible that in the future the external forces will continue to make attempts to destabilize the internal situation in the conditions of “controlled chaos” in the Near and Middle East. Among the countries of Transcaucasia, the Republic of Azerbaijan seems to be the most attractive geopolitical goal for the attack of terrorist organizations which are suppressed by Russia and the forces of the international coalition.

For Russian Federation and other countries of the EAEU, the “window of opportunities” for rapprochement with the Republic of Azerbaijan is expanding. This expansion aims at further rooting in regional projects which relate to the integration of the EAEU and SREB as well as creation of the conditions for promotion to the African continent.

The Republic of Georgia is considered by the leading countries of the West as an important unit of the transport systems and routes which lay outside of the territory of Russia. The country supports the creation of the “Southern Energy Corridor” and the routes which pass through the territory of the Eastern European countries.

The Georgian government intends to develop the transport and service spheres at a faster pace. The country expects to expand its participation in interregional energy supply schemes, including operations of export of raw materials from the Middle and Near East regions through the territory of Armenia, and exchange transactions involving Russia, Kazakhstan, Turkmenistan, and Iran.

At the international level, Georgia demonstrates the political pragmatism and flexibility and the desire to adhere to the principles of feasibility and economic benefit.

Involvement of the country in projects related to the implementation of SREB strengthens its role in Transcaucasia. In the framework of the EAEU-SREB interface, Georgia is interesting as a site which may provide transit of goods in the latitudinal direction within the southern route of the SREB.

One of the promising areas of cooperation between the EAEU, China, and Georgia is the transfer of electricity to long distances, as well as the formation of the “southern belt” of the energy network in the space from Greece and Italy to China and Japan using DC/AC transmission technology.

In addition, deepening cooperation between Georgia and the EAEU countries will allow Russia and Kazakhstan to expand their opportunities to participate in the supply of gas, oil, and oil products using regional infrastructure.

Thus, currently, the conditions for the transition to more active joint actions in the South Caucasus have been formed for the EAEU countries. In the framework of solving national problems and in the course of the EAEU-SREB interface, the coordination and synchronization of the energy policy of the EAEU are required.

In a broader context, today the important goals of Russia and its partners are to balance the interests of the EAEU countries, China, Iran, Turkey, Central Asian, and EU countries in the Caucasus, as well as to restart the integration processes in the CIS.

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Tourism Leadership in Russia: Regional Capacity Estimation



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Abstract This paper contains the analysis and discussions of the latest trends of the tourism development in Russian Federation. The country with an enormous tourism potential and vast natural and man-made wonders and beauties, Russia, still struggles with pathways how to attract the incoming tourism and make the country attractive for foreign visitors. Our research findings identified the main reasons for low or weak tourist attractiveness of selected regions in Russian Federation. Moreover, we proposed the methodology for estimating regional capacity and test it in practice. Furthermore, we come up with a number of useful recommendations about how to develop the region's potential for enhancing its tourist and investment attractiveness while marketing tools. In addition, we design and define a comprehensive set of indicators that reflect the effectiveness of regional capacity management.

1 Introduction

During the recent decades of scientific researches, there was accumulated experience of the economic development of territories. The main result is applying the marketing potential in order to enhance the tourist and commercial attractiveness of Russian regions.

International tourism, as one of the forms of international economic relations, has acquired enormous dimensions in modern conditions and began to influence significantly on the political, economic, and cultural ties between states (Niño-Amézquita et al. 2017). It has become an important source of foreign exchange earnings for many developed and developing countries. Moreover, it embraces many novel trends, such as digitalization and the use of IT (Chiabai et al. 2014; Herget et al. 2015; Strielkowski 2016; Mitsche and Strielkowski 2016; Abrahám and Wang 2017).

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Service sector for Russia is one of the important reserves for improving the international specialization of the country and increasing foreign exchange earnings. The scale and intensity of Russia's participation in the international exchange of services, as in trade in goods, is determined to a decisive degree by the state and development trends of the national economy.

In the context of the weakening of the ruble's position in the world foreign exchange market, the expenditures of outgoing tourists in dollar terms significantly decreased. Outbound tourism, which is the basis of import of services and is based on current incomes and savings of citizens, is less elastic in relation to fluctuations in the economic conjuncture. Price increasing in this segment has become an incentive for a more active domestic interest in national recreational wealth and its development issues (Vasylichak and Halachenko 2016).

Moreover, until nowadays, Russia has used its export potential in this area extremely poorly. As world-scale events took place in recent years in Russia (the Winter Olympic Games in Sochi, 2014; the Cup of the Confederation, 2017; the World Cup, 2018; etc.), it helps to attract foreign tourists. In addition, due to currency fluctuations, the average cost of stay of foreign citizens in Russia is rather low in relation to most countries that export tourism services. This fact also stimulates demand.

At the same time, Russia faces ever more intense competition on the world market of tourism services from a wide range of countries, including former socialist states, China, and countries of Southeast Asia (Zlyvko et al. 2014; Strielkowski and Tarkhanova 2016).

According to the data, presented in the UNWTO World Tourism Barometer, in 2015, the number of international tourist arrivals increased by 4.4% to a total number of 1184 million. This means that, in comparison to 2014, about 50 million more tourists traveled to international tourist destinations around the world.

In 2015, starting from the post-crisis 2010, the growth rates of international arrivals exceeded the average level, and each year this indicator grew by 4 or more percent. By region, in 2015, growth rates in Europe, the Americas, and Asia-Pacific regions were about 5%. The number of arrivals to the Middle East has increased by 3%, while in Africa, according to limited available data, this figure is estimated to have decreased by 3%, mainly due to the weak results of North Africa, which hosts more than one third of arrivals in the region (UNWTO World Tourism Barometer 2015). This situation shows the necessity of usage of the tourist potential on the regional level and on the country level as well.

It is necessary to note the deep structural problems of the domestic tourism industry, which in many cases are not capable to provide a full range of modern services. There is an objective shortage of infrastructure and investment in its development. Measures, which can increase the proportion of more expensive active pastime for foreign citizens, including the development of adventure, environmental, extreme, sports, rural, health, and other popular tourism in addition to passive, hotel regime of stay in the country, are not sufficiently active and do not give tangible results despite the implemented federal target program "Domestic Tourism Development in the Russian Federation (2011–2018 years)."

2 Methodology

Different aspects of regional economy and territorial development were investigated by national and foreign scientists. Moreover, one can mention that methodological aspects of marketing research of attractiveness of the regions are still not well investigated. Marketing potential of the Russian regions is not fully estimated.

This study was carried out within the framework of the implementation of an internal grant commissioned by the Plekhanov Russian University of Economics. The purpose of this study is to have a systematic assessment of the marketing potential of the region and to justify its impact on the socioeconomic development of the territory. The main objectives of the study are the following:

- To clarify the notion of “marketing potential of the region” and justify its role in the regional marketing system
- To investigate and classify existing marketing tools in accordance with the priority tasks of strategic management of the regional marketing potential
- To develop a methodology for assessing the marketing potential of the region as a system of interrelated, interdependent elements
- To identify key indicators which are used to analyze and ensure the sustainable development of the region
- To develop a set of indicators that determine the management effectiveness of the regional marketing potential
- To formulate proposals, which help to develop marketing potential of the region and are focused on the implementation of strategic tasks of improving the competitiveness of the territory

3 Results and Outcomes

Tourist attractiveness is one of the important components in the socioeconomic development of any region (Murtuzalieva 2012). The tourist attractiveness of the region in Russian is used in two meanings: a comprehensive assessment of the recreational resources of the region; and, the other meaning, potential is exploited in such a way which provides an optimal tourist and recreational load and the tourist resources are fully preserved and developed, including such intangible assets of the region as the image and brands and the possibility of obtaining an appropriate social and economic effect (Shishkin and Pogorilyak 2012).

In the recent years, the tourist market in Russia has seriously changed: an objective decrease in the number of outbound tourist trips is accompanied by increase in domestic and inbound tourism.

While analyzing the statistics on the entry of foreign citizens into Russia during 2015, the inbound tourist flow to Russia, compared with 2014, increased by 13.7% –

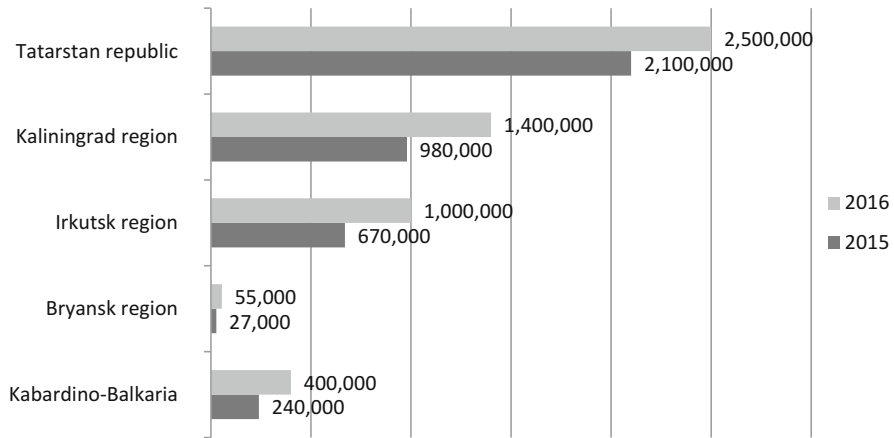


Fig. 1 Dynamics of the tourist destination growth in the regions of Russia (Source: Federal Agency for Tourism 2017)

up to 2 million 937 thousand people. The list of the countries that report the increasing numbers of incoming tourists includes China (+ 65.3% in comparison with 2015), Germany (+ 2.5%), the USA (+ 2%), Turkey (+3.4%), and Israel (+ 17.7%).

By the end of 2016, Russia was visited by more than 22 million tourists, which is 10% more than in 2015. The number of domestic tourists in 2016 in Russia has grown to 55 million. The number of outbound tourist trips from Russia in 2016 was 32 million. Krasnodar region, Moscow region, and Crimea became the leaders of domestic tourism in 2016 among the regions of Russia.

The Republic of Tatarstan, Kaliningrad region, Kabardino-Balkaria, and Irkutsk and Bryansk regions showed high growth rates of domestic tourism in 2016. The Kaliningrad region was visited by 1.4 million tourists in 2016, which is 30% more than in 2015. Kabardino-Balkaria was visited by 400 thousand tourists in 2016, which is 40% more than a year earlier, and Bryansk region was visited by 55 thousand tourists, which is 51% more than in 2015, and Irkutsk region was visited by more than 1 million tourists, that is, a third more than in 2016 (Fig. 1).

According to the Federal Agency for Tourism, in 2016, Russia was among the ten most frequently visited countries by tourists. Foreign tourists from neighborhood and distant countries increased their visits to the Russian Federation (Table 1).

Such positive dynamics has an objective justification. But, unfortunately, many regions of the Russian Federation did not show tourist attractiveness. The main reason is the nonuniform economic development; geographical, climatic, social, and cultural reasons; and peculiarities of regional policy. Regarding this, a different level of investment attractiveness, political stability, quality of life, security, and tourist attractiveness has been formed in the regions.

The tourist attractiveness of the region is based on its potential, which should be understood as the totality of all the economic, social, and natural resources available

Table 1 Number of tourist trips made by foreign citizens in the Russian Federation

Countries	2015	2016	% change
China	1,121,536	1,288,720	+15
Mongolia	378,196	522,026	+38
Estonia	357,377	414,147	+16
Israel	162,046	178,633	+10
Republic of Korea	136,039	161,267	+19
India	50,853	70,375	+38
Iran	41,431	67,166	+62
Switzerland	41,998	48,485	+15
Australia	38,044	41,882	+10
Vietnam	29,790	36,291	+22
Belgium	31,401	34,553	+10
Thailand	24,660	28,446	+15
Cuba	11,884	26,059	+119
Slovak Republic	17,621	20,745	+18
Argentina	16,895	19,300	+14
Portugal	12,759	14,764	+15
Malaysia	6835	8222	+20
New Zealand	6369	7084	+11
Philippines	6137	7043	+15
Singapore	5729	6934	+21
Peru	4751	5215	+10
Jordan	3676	4681	+27
Algeria	3521	4268	+21
Morocco	3409	3867	+13
Tunisia	3036	3511	+16
UAE	1701	2178	+28
Bangladesh	1357	1778	+31
Costa Rica	1211	1465	+21
Bahrain	906	1173	+29
Sri Lanka	952	1502	+58
Georgia	47,216	65,336	+38
Armenia	552,142	596,041	+8
Kyrgyz Republic	373,616	397,842	+6
Azerbaijan	856,349	898,426	+5

Source: Federal Agency for Tourism (2017)

in the region and determining or limiting the development of this region. State support measures are necessary for its development and maintenance. Strategies and programs for the tourism development through forecasting and assessment of tourism potential at the regional level are the main state instruments of tourism activities regulation (Klimenko and Klimenko 2015).

4 Discussion of Results

Region's potential development is based, first of all, on the structural approach, which means identification of priorities among the elements of the potential for establishing their rational correlation and increasing the validity of the resources distribution among them. In this regard, marketing is an important tool for regional capacity development.

Marketing potential of the region as an object of strategic management and the factor of socialization is one of the most ambiguously interpreted topics in economic science. There is no single position, a common methodology of developing and functioning of the marketing potential system, both among foreign and national scientists and specialists (Butko 2017).

The development of marketing activities of territories, government bodies, and regional and federal structures in general is a necessary condition for improving the economic life of society. It influences the structure of demand, the volume of supply, the process of making consumer preferences, the market conditions, as well as the quality of life of the population of the region, investment attractiveness of potential investment objects, and efficiency of the reproductive process of specific territorial entities.

The marketing potential of the region to our mind is the totality of all the resources of the territory and its market opportunities, allowing to create and meet the needs of goods and services in socioeconomic relations of the population for:

- Achieving indicators exceeding the national average
- Creating better competitive advantages in comparison with other territories
- Improving the territory image, its prestige, business, and social competitiveness
- Improving the participation of the territory and its subjects in the implementation of international, federal, and regional programs
- Attracting state orders and orders from other territories
- Increasing the attractiveness of investment

Regional potential is the basis for the development of the marketing potential of the territory. The current state of the regional potential can influence both positively and negatively on the attractiveness of the territory for different groups of consumers. For example, unique natural conditions and historical sites can attract tourists, but the unstable social and economic situation in the region can make efforts to develop a tourist inflow useless (Murtuzalieva 2013). Effective functioning of available resources requires effective management of the region's potential. Regional capacity assessment will identify hidden reserves of territory. It is recommended to conduct such an assessment with the help of the system of indicators:

1. Economic indicators (volume and efficiency of manufacturing, state of regional markets, investment activity, energy and food security, financial sustainability of the region, tax burden and an independent tax base for making local budgets,

indicators of territorial structure, concentration of economic activity, diversification level, property structure in the region)

2. Social indicators (the level of unemployment and employment in the region, the dynamics of nominal and real incomes, the structure of income and expenditure, the ratio of the average monthly income and the subsistence minimum, the consumption of goods and services, the level of infrastructure development, etc.)
3. Environmental indicators (the level of pollutant emissions, the state of surface water bodies and sewage stocks, etc.)
4. Demographic indicators (the number of urban and rural population, sex and age structure, working-age population, educational level, population density, migration balance, etc.)
5. Indicators of the availability and use of resources in the region (labor potential, natural resource potential, productive capacity, infrastructure potential) (Danko 2016)

Analyzing the potential of the regions, we can distinguish medium-developed, problem regions and leading regions. At the first stage, the region’s potential is studied, and regions that need state support are identified (due to objective circumstances, they are in a crisis situation and do not have sufficient opportunities for self-development at the moment).

At the next stage, marketing strategies are developed for all groups of regions, which are aimed to solve important social and economic problems, support the competitive advantages of the region, and reduce factors that have a negative impact on the development of the region.

1. Calculation of the integral indicator of the potential usage:
- 2.

$$y_i^- = \sum y_{ij} \tag{1}$$

where:

\bar{y}_i – **relative value of the integral indicator**
 y_{ij} – **value of the i-index in the j-region**

3. Determination of the average:

$$Y_{i \text{ average}} = \left(\sum y_{ij1} + y_{ij2} + y_{ijn} \right) / n \tag{2}$$

where:

n – number of regions

4. Calculation of the integral indicator (I):

$$I = y_i^- / y_{i \text{ average}} \tag{3}$$

After calculating the integral indicator, the regions are distributed according to the level of capacity development (medium-developed, problematic, developing potential, or region leader), using the following method of calculating the interval series:

$$\Delta = X_{max} - X_{min} / 1 + 3.322 \lg n \quad (4)$$

where:

x_{min} – minimum value of the integral indicator

x_{max} – maximum value of the integral indicator

n – number of regions

The boundaries of the intervals ($a_j; a_{j+1}$) are calculated by the rule $a_1 = x_{min} - D/2$, $a_2 = a_1 + D$, $a_3 = a_2 + D$, etc.; the interval development ends as soon as for the end a_{j+1} the next condition satisfies $a_{j+1} > x_{max}$. The calculation of D is made with the number of decimal places, one more than in the original data. At the next stage, regions are distributed according to the calculated interval boundaries. The distribution of regions in accordance with the calculated range gives an integral picture of the potential development, both in the region and in the country on the whole. Based on the results of the regional capacity assessment, we are invited to assess the level of regional potential usage (LRPU) by the following formula:

$$LRPU = \frac{\sum_{i=1}^n W_p}{\sum_{i=1}^n P_i} \quad (5)$$

where:

p – regional potential

$\sum_{i=1}^n P_i$ – number of evaluated potentials

W_p – scoring of the potential of the region (3 points, a highly developed region (lead region); 2 points, developed region; 1 point, underdeveloped region)

Let us examine the level of the regional potential usage in the North Caucasus Federal District (NCFD). In our opinion, this region could satisfy bigger tourist demand than today as it has a tremendous recreational potential, especially geographical. In North Ossetia, Kabardino-Balkaria, and Karachay-Cherkessia, hundreds of mountaineering routes have been developed: Mizhergi, Dzhangitau, Shkhara, Pushkin peak, Elbrus, Dykhtau, and Koshtan-Tau. In addition to the skiing segment, the resorts of the North Caucasus could propose beach and balneological recreation. The latter allows the use of unique resources of the region – the richest sources of mineral water, almost 30% of all Russian reserves.

Despite the fact that the NCFD has favorable conditions for the development of tourism, so far natural benefits remain unused. Possessing an impressive recreational potential and a rapidly aging material and technical base in the absence of the necessary attention from investors, subjects within the NCFD should seek additional own opportunities and means to promote services and products, as well as popularize

them for tourists. In such conditions, the use of marketing tools (based on studying and satisfying the needs of potential consumers) in the strategy of strengthening the competitive advantages of the region as a resort can become a crucial factor in increasing the competitiveness of this territory and increasing its share of the tourist market on a countrywide scale and the world as a whole. This should activate the inflow of both users and business operators and increase the investment attractiveness of the region, giving impetus to its further intensive economic development. The level of use of the regional potential of the NCFD regions is presented in Table 2.

Overall, one can see that there is no highly developed territory in the NCFD: no region of the district has received a 3-point rating. The Republic of Dagestan, the Chechen Republic, and the Stavropol region belong to the category of the developed potential of the region because of labor, natural resources, and investment potentials. The remaining regions of the district are classified as underdeveloped regional potential.

5 Conclusions

This approach to assessing the regional potential is universal and can be applied in assessing the potential of any territorial formation. Unlike existing methods, the proposed approach makes it possible to assess in a complex way the potential available for a particular region. Approbation of the proposed algorithm for assessing the regional potential using the example of NCFD allowed not only to confirm the calculations of statistical data but also to obtain more detailed information about the development of the regions in the district.

Further research will be dedicated to the development of marketing strategies of the North Caucasus Federal District (a strategically important region of the Russian Federation), based on the revealed potential.

Natural resources in the region are rich, but labor potential has a weak socioeconomic, investment, innovative, and export potential. All these factors make impossible to create highly developed tourism sector in the region. At the same time, tourism in the North Caucasus Federal District should become in the future one of the main branches of the economy, which makes its budget. At the same time, the development of tourism should contribute to solving the problems of reducing the conflict potential of this region of the Russian Federation. Among the main reasons of the inefficient development of the regional potential in NCFD, we can point out the following.

Budgetary funds are used in inefficient way: State long-term targeted programs determine development of tourism infrastructure as a priority. At the same time, a well-developed integrated mechanism for the implementation of the goals and objectives of these programs is absent both at the country and regional levels. Thus, the allocated state budget funds are spent haphazardly. So this is ineffective while tourism is low profitable, capital intensive, and highly sensitive to the risks of

Table 2 Level of the regional potential usage of the NCFD in 2017

Potential/region	Republic of Dagestan	Ingushetia	Kabardino-Balkaria Republic	Karachay-Cherkessia Republic	Chechen Republic	North Ossetia-Alania	Stavropol region
Labor	3	1	1	1	2	1	3
Socioeconomic	1	1	1	1	1	1	2
Natural resource	3	3	3	3	3	3	3
Innovative	1	1	1	1	1	1	1
Investment	2	2	1	1	3	1	2
Export	1	1	1	1	1	1	1
Regional	2 (1.8)	1 (1.5)	1 (1.3)	1 (1.3)	2 (1.8)	1 (1.3)	2 (2)

Source: Own results. **Bold:** From 1 being the lowest to 3 being the highest

business. All these facts as a whole minimize the economic and social impact of the growing budget injections into the regions.

At the same time, the key to the successful implementation of programs dedicated to the development of the tourism sector is the integrated approach to their implementation of all related economic entities (it also includes reduced tariffs for air transportation, providing a sufficient number of carriers, and marketing campaigns promoting domestic tourism).

The positive effect of state financial support to the tourism industry cannot be achieved without a comprehensive study of the base (capacity) and stages of infrastructure development, the definition of tourism development targets and the scope of related goods and services, the calculation of aggregate performance indicators (the efficiency of regional residents and management bodies, profitability of public investment in the creation of engineering, transport, social infrastructure in the region), and officials, who should be responsible for these indicators.

Lack of stable amounts of public funding and responsibility of investment recipients for their effective use: It was assumed that in 2017 the North Caucasus Federal District (NCFD) will receive 31.8 billion rubles from the budget. However, financing of the state program for the development of the North Caucasus Federal District has been proposed to be reduced to 13.7 billion rubles, including the cost of completing the started social facilities (3 billion rubles) and the additional capitalization of the North Caucasus Development Corporation and the North Caucasus resorts (about 6 billion rubles). In this context, the deteriorating prospects for obtaining investment will have extremely negative consequences against the backdrop of inefficient investment of available resources (misuse and support of unprofitable industries). In order to avoid such situations, it is necessary to provide investment mainly to those industries, enterprises, and municipal entities that have already proved their effectiveness and ability to work with benefits in a competitive and market environment.

Lack of private investment practices and the infrastructure needed for private investment: The economy of the North Caucasus is currently experiencing a sharp decline in investment associated with the budget crisis, and the expected reduction in government spending will inevitably lead to a further drop in private investment. “Unhook” the North Caucasus from budgetary investments, this is only a good intention, which has little to do with the actual state of affairs. It is private investment (and not the state budget) that should become the main source of the region’s growth in the future. Investment in the economy should be bigger and use of resources much more effective. In this regard, the focus on attracting private investors for the development of the real sector of the economy – the agro-industrial complex, light industry, tourism – is a priority direction for the management of the regions of the North Caucasus Federal District. The inadequacy and inefficiency of the work on attracting private investors are related to mistakes in investment policy. It is necessary to develop a strategy for informational support of the regions’ activities and the course that it conducts, which will allow to overcome the negative information background and achieve an increase in the investment attractiveness of the subsidized regions. An effective marketing tool in this case can be:

1. The development of brand book (presentations with a detailed description of the regional brand), containing information about all the resorts, sights, features of the area, and ways of getting in, which should be distributed among both large and small Russian and international tour operators and agencies
2. Creation of an information Internet portal containing comprehensive information about all participants of the umbrella brand
3. Monitoring of the perception of the tourist industry of the North Caucasus in Russia and abroad in order to identify key factors in the development and positioning of the North Caucasus resorts
4. Promotion of existing national cultural brands of the North Caucasus using the following communication channels:
 - Direct advertising (including websites and printed publications)
 - Development of public relations; participation in forums, conferences, exhibitions, fairs, seminars, events in the field of culture, and Internet communications; the establishment of state news agencies; and the involvement of foreign broadcasting organizations
 - Creating and conducting a series of television programs devoted to tourism, nature, and attractions of the North Caucasus on Russian and international television channels (Russia Today, Discovery, BBC World News, etc.)
 - To organize a large-scale international promotion, which proposes free distribution of tourist packages to the resorts of the North Caucasus, accompanied by a massive advertising campaign (with the predominant use of social networks and other free tools for mass communication). Funding for the creation and implementation of branding policies should be made within the limits provided by the federal executive bodies concerned to the federal budget, as well as funds provided for in budgets of interested subjects of the Russian Federation and municipal entities, at the expense of interested enterprises and organizations (Skorobogatykh 2012)

Weak support for small- and medium-sized businesses: Small business has a huge social significance as a deterrent to poverty and unemployment. In previous years, despite the pretentious statements of responsible officials, very little has been done for small businesses. Financial assistance was received only by a few “selected” small enterprises and, even then, often by corrupt schemes or affiliated with responsible employees. Small- and medium-sized businesses in most regions of Russia today are in dire need of getting out of the shadows to gain access to financing and lending. Enterprises that showed their ability to survive and successfully compete in the market in the current crisis conditions need to provide assistance in moving to the markets of other regions of the Russian Federation. And in this regard, the development of an appropriate program at the regional level is required.

Violation of the market: Violation of the conditions of competition, price collusion, and the division of the market are almost universal and worsen both the conditions for the economic development of the regions and the social price that society and the individual consumer are forced to pay. A prerequisite for the

successful development of crisis subsidized territories is the promotion of competition and the fight against regional monopoly.

The development of the tourist and resort sector of the North Caucasus Federal District requires the solution of complex tasks – from the security problems that remain relevant until the construction of a single water infrastructure in the main recreational area of the district – on the Caspian coast. It is necessary to create a special program for the creation of a competitive integrated tourism, recreation, and resort complex of the North Caucasus, integrated with the resorts of the Krasnodar Territory. The core of the concept for the development of an integrated tourism industry in the NCFD should be the creation of a single tourist transport system, based on an airborne junction in the city of Mineralnye Vody. It is assumed that the main stream of Russian tourists to the cities and settlements of the North Caucasus Federal District will pass through the airport of Mineralnye Vody and then be distributed through a specially developed high-speed rail system between the areas included in the unified system of North Caucasian resorts. It is required to reconstruct the railway communication of the resorts with each other, as well as the supply areas. This will allow tourists to rest alternately at different health resorts. A prerequisite is the development of intermodal communication between the hub airport and key interchange nodes, as well as the introduction of programs providing for the acquisition by the tourist of a single document allowing to travel using various modes of transport. No less important is the implementation of a high-speed rail line to the tourist districts of the Krasnodar Territory in order to ensure the integration of the entire South of Russia on the basis of a recreational complex.

The presence of high territorial connectivity is the key to solving the problem of creating a single tourist brand of the North Caucasus Federal District. It will help consumers to understand the differences between the competing regions of the world for tourist flows, which are understood as the reputation, set of expectations, and associations that consumers associate with the brand of the product or its manufacturer. The positioning of a single resort zone as a health region is proposed, which will make it possible to make the most of the existing recreational potential (sea resorts of the Caspian, mineral water, ski slopes, etc.). Such positioning is possible because of creating and promoting the brand of the North Caucasian resorts. At the heart of the brand should be the idea of an eco-friendly holiday aimed at improving health and releasing the latent potential of a person of any nationality and citizenship, by creating a single resort area in the district. The integrated North Caucasian resort will allow the effective unified positioning and promotion of the NCFD both in Russia and abroad.

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Leadership in the Agricultural Sphere of the Economy



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Abstract The article makes a scientific substantiation of the component options of agricultural enterprises' material and technical resources on the basis of the author's economic mathematic model. It foresees income obtainment from operational activity by the business entities and assurance of leadership positions of agricultural sphere upon such conditions as compliance with optimal dimensions and structure of agricultural lands and crop areas; increase of natural soil fertility at the expense of the improvement of the crop areas structure, planting expansion of bean cultures and perennial grass, and use of green manures; increase of livestock and poultry; compliance with scientifically grounded diet of livestock and poultry in animal industry; balanced use of mineral and organic fertilizers; use of the definite quantity of technical means; and definition of the costs, which represent the price of the existing and new technique, which should be purchased in order to fulfil certain operational processes and demands according to realized technologies. Optimization of the material and technical resource structure of the agricultural enterprises was conducted on the basis of Odessa region. Its aim is to satisfy population needs and industry demands in agro-food and primary production in order to assure an expanded reproduction of material and technical resources on the basis of flourishing management of agricultural enterprises. An economic mathematical model has been constructed according to the maximum of income from agricultural activity.

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1 Introduction

The importance of scientific development of the problem of formation and effective use of material and technical resources of agricultural enterprises with the aim to increase leadership positions of the sphere in the country's economy is caused by actual social and economic processes, which take place in agriculture. The immediacy of this process causes the necessity of compliance of technological assurance of the operational activity of agricultural structures with the demands from consumers, society and world community; rationality of increase of economic efficiency of the use of all the existing resources by rural business entities; the importance of competitiveness reinforcement of the agricultural production and their commodity producers at the inner and world markets; social economic significance of the rural residents' life improvement; and immediacy of the system improvement of natural resource use and bio resource management in agriculture according to the modern ecologic standards. All of them are defined significantly with the material and technical resource condition and the efficiency of its use at agricultural enterprises.

Optimization of the material and technical resource structure of the agricultural enterprises has an important meaning for the effective realization of agricultural production and taking leading positions in the country's economy (Janda et al. 2013; Mishr and Singhanian 2014; Štreimikienė et al. 2016). This task remains actual and its solution was one of the important problems which were ahead of the economists and agricultural economists.

2 Literature Review

The issue of the agricultural sector optimization in the context of efficiency increase and taking leading positions among the spheres of national economy has been investigated by national and foreign scientists as well (Brodzicki 2016; Niño-Amézquita et al. 2017). The issues of efficiency of agricultural enterprise activity, especially organic, have been investigated in the research works of Brozova (2011). Production facilities (own capital, assets and obligations) of the enterprises of the chosen region and financial rates, which helped to analyse activity efficiency, have been investigated with this aim (Jankelová et al. 2017). Researches have shown that traditionally agricultural enterprises (legal entities) have higher average assets per hectare, than organic ones. At the same time, the particle of profitable organic farms was much higher than in an ordinary farming (Brozova 2011).

The specification of the category efficiency has also been investigated by a lot of scientists. Most of them explain this category as "the relation of the production results to the expenses (production resources) used for their obtainment" (Brozova and Vanek 2013; Gryshova and Shestakovska 2017). The dependence between the quantity of invested resources and production volume may be described with the help of production function:

$Q = f(R_1, R_2, R_3... R_n)$, where:

Q – production volume;

R – quantity of used resources of different types (Kuznetsova and Sigal 1997)

One of the most famous is the model, which belongs to “Keynesian school”, proposed by Domar (1946). This model presents the production technology with the help of Leontief’s production function with the constant limiting capital production (Domar 1946). The limit of this model is caused by the use of Leontief’s production function in it. It excludes the opportunity of interchange of the main production factors (labour and capital) (Leontief 1986).

The most famous is the model, which also belongs to “Keynesian school”. It is the model of Solow, which, instead of Leontief’s production function, uses Cobb-Douglas’ production function, in which labour and capital are interchangeable. According to Solow’s model, we may state that economics tends to achieve a corresponding constant level of capital labour ratio and balanced growth. Together with them income and capital grow in proportion to the speed of employed population growth and the labour efficiency increase – irrespective of the saving ratio. In such a way, Solow has explained the process of the continuous economic growth under the full resources occupation in the equal conditions (Solow 1956).

The investigation of the agricultural enterprise efficiency (Gataulin et al. 1990) showed that agricultural holdings have higher and quicker profitability using higher intensity of business function activity comparing with farming enterprises. A high diversity in efficiency and profitability rates in terms of farming groups as well as different agricultural holdings has been defined. It has been determined in the result of investigation that there is a great stock of efficiency growth of agricultural enterprise activity at the expense of management skills improvement, new technology use and increase of the human capital labour efficiency.

Economic mathematic modelling as a method started its development in the twentieth century in the scientific works of such scientists as Braslavet and Kravchenko (1972), Gataulin et al. (1990), Kotenko et al. (2010), Gryshova et al. (2017), Naumov and Naumova (2017) and others. However, the problems, which concern the condition and tendencies of the material and technical resource development of agricultural enterprises as a component of certain territory administration units, scientifically grounded affairs towards economic efficiency increase of material and technical resource use of agricultural enterprises under the dynamic social and economic changes in the country, and the creation of the effective mechanism of the material and technical resources presentation taking into account the influence of the great quantity of different factors and peculiarities of their interaction, have not been investigated completely.

A mathematic modelling of economic processes is used with the development of economic and mathematic methods, which assure the adoption of the most effective decisions in planning and managing of the production process. It involves the main positions and rules, which assure the development of mathematic models of economic processes (Strielkowski et al. 2016) Linear programming is engaged in the search of the feasible solution, which makes the linear form effective. The task of

linear programming is the mathematic model, which has the following qualities: linear form, which should be maximized or minimized, and linearity of limits, each of which is represented in the form of inequality or equality (Kotenko et al. 2010). While studying the reviewed examples of the models of linear programming, we can be sure that their creation comes to the rational and detailed specification of the model components (accessories solutions, limits, target function and so on) according to the symbolic lineal optimization model (Naumov and Naumova 2017).

Economic mathematic task of the effective plan of agricultural production location and specialization lies in particular in the definition of the enterprise production structure that is in the definition of the agricultural cultures and territories, certain types and groups of livestock, machine and tractor fleet and so on. This model allows representing the variety of conditions, interconnection between resource expenses and production results. It also allows balancing the production and use of labour means and objects in order to assure rational use of the existing production facilities.

It is necessary to analyse the level of production development according to such directions as cost and structure of the goods, existence and use of agricultural lands, planted areas and succession of crops, the quantity of livestock, expenses of labour per production unit and use of the involved labour, animals' diet, planned animal production, planned volume of feeding staff production, cost value of production unit, expenses of feeding staff per one centner of production, specific weight of the expenses for the feeding staff in the cost value of animal production, the structure of expenses of the feeding staff according to the types of animals and production efficiency of the feeding staff and other economic rates (Gryshova et al. 2016a, b).

3 Purpose and Methods

The aim of the research is a modelling of the development process of the material and technical resources of agricultural enterprises of Odessa region in terms of obtainment of national enterprises in agricultural sector leading positions.

Theoretical and methodical basis of research were dialectical method of perception and systematic approach towards economic process study, scientific works of national and foreign scientists on the problem of representation and effective use of the material and technical resources of agricultural enterprises as well as methods, adopted in economic science. They are as follows: abstract logical (theoretic generalization and conclusion formation), statistics economical (the analysis of the modern condition of material and technical resources and comparison of factual and forecasted facts) and economic mathematical (optimization of the production program of activity and quantitative structure of machine and tractor fleet of agricultural enterprises).

4 Results and Discussions

In the process of economic mathematic model working out a list of accessories, the size of which should be defined in the result of the task solution. The main accessories of this model reflect the structure and sizes of the spheres and types of enterprise activity with the extraction of intensive technologies, differentiation of production according to the directions, degree of intensity and production ratio of labour to output, volume of production realization, the quantity of technique and equipment which will assure an effective production process and the main economic rates.

The following groups of accessories are used in the task:

1. Crop production:

- Crop areas of the agricultural crops of salable intended use
- Crop areas of grain fodder and feed cultures
- Areas of perennial plantings
- Areas of improved cultural and natural lands
- The volume of production of marketable products and for feeding aims

2. Animal production – wildlife population and the volume of production

3. Machine and tractor fleet – the quantity of technique, necessary for the fulfilment of all agro-technical operations and its cost

4. Economical rates of agricultural enterprise activity of Odessa region

We may define the following groups of restrictions in the formed task, such as:

1. On land resource use (hectares)

2. On feeding staff production and use (centner per feeding staff unit)

3. On production realization (centner)

4. On additional demands towards the size of animal and crop production spheres

5. On the need of technique on certain technological operations (items)

6. On the cost of technique according to its types (thousands of hrivnyas)

7. On definition of the main economic rates of Odessa region agricultural enterprise activity (hrivnyas)

The aim of the region's agricultural enterprise activity lies in the revealing and satisfaction of the population needs and industry demands correspondingly in agro-food and primary production in order to assure expanded reproduction of material and technical resources on the basis of profitable business and operations. At the same time, agricultural enterprises in terms of market are obliged to receive a sufficient quantity of production not only for the internal consumption but also for agricultural production export. Material and technical resources of Odessa region allow to be one of the main exporters of seeds, sunflower corn (or better sunflower oil), sugar and goods of animal production spheres. It is necessary to increase the efficiency of agricultural enterprise production with the aim to receive the maximal profit, which is a target function of the objective.

The methodology of the information preparation in order to work out economic mathematic model is based upon the analysis of the reported data of Odessa region agricultural enterprises for the last years. Average factual rates are defined on the basis of these facts. They are the reference information for economic mathematical task. They are first of all the rates of agricultural crop yield level, productivity of all types of animals, prime cost of prices and realization of production unit, location of production of several types and production norms of the main types of agricultural technique and prices for it.

In the result of the objective, an efficient plan of agricultural enterprise development of Odessa region for further extension (to 2020) has been received. In the plan of development, several issues were achieved. They are optimal parameters of the agricultural land components; crop lands of the main agricultural crops and animals; the quantity of the necessary technical means in the context of types and trademarks of tractors and agricultural machines, which are used in production and transportation of animal and crop production; as well as the costs, which show the price of the existing on the enterprise technique and new technique, which should be purchased for the fulfilment of corresponding agro-technical operations and terms of their fulfilment and used technologies.

It is proposed to improve the crop area structure in order to make the land resource use better on the basis of the conducted economic mathematical modelling. It is also planned to enlarge the areas under the pairs, which comprise 113.6 thousands of hectares in 2020, as during the recent years the land is used rather intensively. That usually leads to the washout of the top soil and to the alteration of the land resource fertility. It is necessary to reduce the land under grain and mostly under technical cultures and increase it under feeding and vegetable vine crops in the structure of the crop areas. The enlargement of the area of feeding crop growth is caused by the increase of production volume of the animal production sphere. The expansion of the perennial grass crops will allow accumulation up to 800–1000 kg of humus per 1 ha annually.

The absence of any involvement of the state into the production process of the most of agricultural enterprises, as well as into crop succession planning, has led to the fact that only four cultures are present in the structure of crop areas in some enterprises, such as fall wheat and winter barley, sunflower and rape. Of course, this phenomenon does not encourage soil fertility and their quick renewal, and that leads to reduction of agricultural crop yield level. This fact also reduces the level of economic efficiency of agricultural commodity producers and makes such unwise state policy of soil protection ineffective. It doesn't support leading positions of agricultural sector among the other spheres of national economy (Gryshova et al. 2017).

Taking into account the results of modelling, it is proposed to reduce crop areas of sunflower and enlarge the areas of winter rape, which is much better for cereal crops, grown in Odessa region.

Application of organic and mineral fertilizers has an important meaning for the soil fertility increase. In such a way, 35–45 elements of nutrition came traditionally into the soil thanks to organic fertilizers. In order to provide self-supporting balance

Table 1 Application of fertilizers for the main agricultural crops

Rates	Years			Average for 2014–2016	2020	Deviation of 2020 to the average rate during 2014–2016
	2014	2015	2016			
General crop area, thousands of hectares	1278.2	1260.9	1242.6	1260.6	1306.5	103.6
Mineral fertilizers						
The amount in the form of nutrients altogether, thousands of centners	856.4	819.6	1130.8	935.6	1092.8	116.8
Fertilized area for crops, thousands of hectares	995.5	954.8	1075.6	1008.6	1033.6	102.5
The amount applied into the soil in the form of nutrients per 1 ha, kilogrammes						
Crop area	67	65	91	74.3	83.6	112.5
Fertilized area	86	86	105	92.3	105.7	114.5
Organic fertilizers						
The amount of applied fertilizers, altogether	45.1	31.5	66.9	47.8	342.3	715.6
The fertilized area, thousands of hectares	4.7	3.5	5.7	4.6	5.4	116.5
The amount of applied fertilizers, 1 ha, kilogramme						
Crop area	35	25	53	37,7	0,3	0,7
Fertilized area	9600	9000	11,600	10,066.7	63.4	0.6

Source: Own results

of humus, it is necessary to apply 14–15 tons of organic fertilizers per 1 ha of plough land annually. Nowadays, it seems to be unreal, as the capability of agricultural commodity producers comprises only 0.1 tons per hectare.

Just the use of organic fertilizers and in such quantity cannot satisfy land resource need in nutritional chemicals at the moment. That's why it is necessary to use mineral fertilizers together with organic ones. Their contribution into the growth of productivity exceeds 50%.

According to the optimal solution (Table 1), the growth of mineral and organic fertilizer application in 1.2 and 7.2 times correspondingly is foreseen. It continues tendencies, which have started since the beginning of 2014, when growth of use of this efficient method of the agricultural crops yield is observed.

The increase of organic fertilizer quantity applied into the soil is caused by the growth of the production volume in the animal production sphere and by a great advantage of the latter over mineral fertilizers in economic meaning. The increase of production volume of dairy and beef cattle breeding is caused by two factors:

Table 2 Production volume at the agricultural enterprises of Odessa region, thousands of tons

Rates	Average for 2014–2016	2020	2020 to 2014–2016	
			%	+/-
Grain	2853.0	3046.7	106.8	193.7
Sunflower seeds	692.2	302.8	43.7	-389.4
Rape seeds	144.8	238.4	164.6	93.6
Vegetables	75.7	403.7	In 5.3 times	328.0
Potatoes	3.7	297.5	In 8 times	293.8
Fruit	5.9	7.5	127.1	1.6
Grapes	135.2	159.8	118.2	24.6
Body weight gain of the cattle	2.7	11.6	In 4.3 times	8.9
Milk	36.4	49.7	136.5	13.3
Body weight gain of pigs	14.5	15.6	107.8	1.1
Body weight gain of sheep and goats	0.6	1.2	211.8	0.6
Body weight gain of poultry	0.3	1.9	In 6.3 times	1.6
Poultry eggs, millions of items	9.7	286.5	In 30 times	276.8

Source: Own results

livestock growth and animal productivity. The first fact will lead to the increase of the production volume, which is obtained in the result of animals' life activity. In the result of the corresponding storage, it turns into organic fertilizers.

The application of the sufficient economically substantiated quantity of fertilizers will allow producing higher amount of production for agricultural enterprises of Odessa region comparing with the rates of 2014–2016 (see Table 2). To achieve this, it is necessary to improve crop area structure and develop animal production sphere. It will allow providing enterprises with organic fertilizers, adhering to the technology of agricultural crops and animals' growth, which is possible due to the efficient filling of the machine and tractor fleet and development of other factors, which will influence positively the agricultural enterprise activity (Gryshova et al. 2016a).

The production of plant-growing agricultural production will grow in all types; especially it concerns potatoes, the increase of the production volume of which will be five times and vegetables 3.5 times. This production has especially increased demand at the inner market. The production of grains will also grow according to the optimal solution up to 18% (Gryshova et al. 2016b).

The reduction of the production volume of sunflower seeds to 56% is caused by the reduction of crop areas of this plant. The increase of the production in the animal production sphere will comprise from 8% to 112% in all types of goods, besides body weight gain of the cattle and poultry and eggs (they will increase in 4.3, 6.3 and 30 times correspondingly), which is caused by the possible quick growth in the development of this sphere. The level of egg production in 1990 in Odessa region comprised 622.5 million units. The planned rates for 2020 will allow achieving only 46% of the level of 1990. The growth of the animal sphere production will allow not only filling the inner market with the qualitative national goods but also providing

Table 3 Economic results of Odessa region agricultural enterprises for further extension

Rates	Average during 2014–2016	2020	2020 to 2014–2016	
			%	+/-
Gross output of agricultural production (in constant prices of 2010), thousands of hryvnias	617.9	6650.6	107.6	471.7
Which includes:				
In crop production	5850.1	6032.7	103.1	182.6
In animal production	328.8	617,9	187,9	289.1
The level of profitability (unprofitableness), %	15.8	34,6	x	18.8
Which includes:				
Grain	31.1	44	x	12.9
Sunflower	48.4	70.7	x	22.3
Vegetable crops	30.1	48.3	x	18.2
Potatoes	31.0	42.6	x	11.6
Fruit and berrylike	29.1	36.3	x	7.2
Grapes	44.9	71.2	x	26.3
Milk	1.5	25	x	23.5
Cattle for meat	-31.1	9.5	x	40.6
Pigs for meat	-1.7	8.7	x	10.4
Goats for meat	5.7	21.2	x	15.5
Poultry for meat	-15.0	3.7	x	18.7

Source: Own results

the crop production sphere with valuable but mainly fertilizers, which are almost free of charge.

Economic efficiency of the optimal solution of agricultural enterprise development of Odessa region will grow essentially comparing to the rates of 2014–2016, which can be observed in Table 3. The size of the gross output received in the agricultural production will grow to 7.6%, which is caused by the growth of agricultural production volume.

The level of profitability will grow to 19 percentage points. While characterizing economic rates in different spheres of agricultural production, we may state that the growth of profitability level in the animal production sphere will happen quicker. The main thing is that in 2020 this sphere will not be unprofitable and the income in the amount of 11.2 million hryvnias will be received and the level of its profitability will comprise 13.6%.

Technological need in technique and equipment according to the calculated optimal solution will be suggested in the Table 4.

According to statistics in Table 4, the need in certain types of technique will grow comparing with 2015. The need in some types of technique will, vice versa, reduce. That is caused by the improvement of machines and an efficient growth of their productivity. Common use of technique by small enterprises will allow reduction of

Table 4 Technological need in technique of Odessa region agricultural enterprises

Type of technique	Years		2020 to 2016, %
	2016	2020	
Tractors	8869	10,124	114.2
Trucks and passenger trucks	5292	6114	115.5
Tractor trailers	3883	9373	241.4
Ploughs	3793	4686	123.5
Cultivators	5445	4819	88.5
Harrows	12,005	16,120	134.3
Drill machines	5107	4697	92.0
Potato planters	39	32	82.1
Manure and fertilizer spreaders	1093	611	55.9
Combine harvesters	1790	2564	143.2
Corn harvesters	171	609	356.1
Forage combine harvesters	297	800	269.4
Potato harvesters	14	30	214.3
Beet harvesters and machines	29	20	69.0
Machines and harvesters to gather vegetables and gourds crops	56	470	839.3

Source: Own results

the quantity of complex and expensive technique, which is necessary to fulfil certain technological operations during agricultural crop growth. A great increase of machines, waggons and harvesters to gather vegetables is caused by an essential growth of volume of vegetable and gourd production. What concerns waggons, it is caused by an essential growth of the animal production volume. The reduction of some types of technique (potato planters, manure spreaders) is caused by the fact that most of machines, which the goods producers possess, are old both physically and morally. That's why most of them, which stay on the balance of agricultural enterprises, are not suitable for use in agricultural operations.

The enterprises, which are engaged in potato planting, possess the above-mentioned technique. They lack the animal production sphere. That is why it is necessary to reduce their quantity and to replace them with the new and more effective once. In order to renew machine and tractor fleet, the technique of national and Belorussian producers is suggested. In particular they suggest the following trademarks of tractors: Kyi-425, MTZ 82.1, Kyi 14102M, Belarus 921.3, MTZ 892, T 150, XTZ -17221-19-31 and Belorus-3522. These models are intended for different types and volumes of work and completely satisfy the demands of goods producers. What concerns power, these tractors are divided in the following way (see Table 5).

Percentage-wise the tractors of the last three groups will comprise about 30%; only the need in tractors with power of 40 kW and lower will comprise 9%.

The general cost of machine and tractor fleet and the purchase of equipment for animal production sphere will comprise about 31.6 billion hryvnias. About 6.2

Table 5 The division of tractors according to power

Tractors, in general	Including power (items)			
	40 kW and less	40.1–60.0 kW	60.1–100.0 kW	Over 100.0 kW
10,126	881	3015	3205	3025

Source: Own results

million hryvnias are required for animal production sphere. The rest 25.4 billion hryvnias are required for the technique and technical means renewal, which provide for the production process in the crop production sphere.

The worldwide tendency of agricultural technique development, which is aimed at the growth of its capacities, will definitely have its influence in Ukraine, as most of the foreign machines are created for the tractors of drawbar categories 3, 4 and 5. These tractors are being produced at Kharkiv tractor plant.

5 Conclusions

In such a way, the suggested optimal solution of Odessa region agricultural enterprise development foresees the opportunity of assurance of agricultural goods producers leading positions. The improvement of crop area structure together with optimal norms of fertilizer application will allow assuring rather high yield of agricultural crops. The growth of the production volume of animal production sphere will allow increasing the number of national food products per population. It will also allow covering the needs of crop production sphere in organic fertilizers, as the application of the latter reduced significantly during the last 20 years. The economic component of the optimal solution will also improve. It will allow fulfilling the process of reproduction of material and technical resources of Odessa region agricultural enterprises.

Further research is needed in order to obtain more detailed (feature-based) modelling of the development of the main components of agricultural enterprise material and technical resources.

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Ionizing Irradiation of Chilled Meat Raw Materials as the World's Leading Technology



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Abstract Market demand and consumer preferences are formed on the basis of decisions that are made by individual consumers in accordance with their desires, needs, and financial resources. Currently, one of the competitive advantages of Russian consumer market is a stable supply of high-quality chilled meat raw materials and meat products from chilled meat. Today, the needs of the RF (Russian Federation) population in pork and poultry meat are fully covered. The largest share in total production is taken by chilled products: beef (80.9%), pork (94.1%), and poultry (64.1%). In this regard, the improvement of traditional ways and the introduction of new ways to extend the shelf life (storage term) of chilled meat are urgent areas of scientific research. Along with the well-known methods of preventing the growth of microorganisms and the development of oxidative processes in meat, the processing of ionizing radiation of poultry meat, beef, lamb, and pork is officially authorized. On the territory of the Russian Federation, radiation treatment of meat (except for poultry meat, rabbit meat, and horse meat) has been allowed only since July 2017, but at the same time, rational dose of radiation for each type of meat has not yet been determined. Studies on the processing of cooled beef through ionizing radiation were conducted in order to determine the rational radiation doses. It is established that the exposition of chilled beef to ionizing radiation hampers the development of microbiological damage and does not adversely affect the organoleptic characteristics and nutritional value of meat raw materials. The processing of chilled meat raw materials allows to increase their shelf life by three or more times, which makes it possible to consider the exposition to ionizing radiation of meat as the world's leading technology of preserving it. A rational dose of irradiation of chilled beef was determined depending on the fat content.

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1 Introduction

Competitive advantage in food products clearly determines leading regions and countries. Food processing industries are crucial for the development of economy (Moskalenko and Yevsieieva 2015). Currently, one of the competitive advantages of the Russian consumer market is a stable supply of high-quality chilled meat and meat products from chilled meat. In Russia, domestic demand for pork and poultry meat has been fully covered; the share of meat and meat product imports has decreased from 20.9% in 2013 (before the introduction of anti-Russian sanctions) to 9.4% in 2016; the share of exports increased from 1.1% up to 2.1%; the ratio of exports to imports increased from 1:21 to 1:4.9 for the same period. The largest share in the total production of meat products is taken by chilled products: beef (80.9%), pork (94.1%), and poultry (64.1%). Simultaneously, at various stages of the food technological chain, livestock production losses occur. Traditional storage technologies (exposure to high and low temperatures, storage in a modified environment, vacuum storage, surface treatment with chemical and biological reagents, etc.) do not fully provide increased market demand for chilled meat raw materials in accordance with changes in consumer preferences. On the territory of the Russian Federation, radiation treatment of meat (except for poultry meat, rabbit meat, and horse meat) for the purpose of increasing its shelf life has been allowed only since July 2017, but at the same time, rational dose of radiation for each type of meat has not yet been determined.

2 Literature Review

Food irradiation is an effective method for inhibiting the growth of microorganisms, coliform bacteria, mold, and yeast, without reducing food value and impairing organoleptic properties (ICGFI 1994; Sakata 2015). Gram-negative bacteria are more sensitive to radiation and can be inactivated at doses from 1 to 7 kGy. Yeasts and mold are more resistant to radiation than gram-positive bacteria. Thus, nonspore-forming bacteria can be used as markers for evaluating the effectiveness of irradiation. To inactivate them, a dose of at least 3 kGy is required.

The use of food irradiation technology contributes to the microbiological safety of food products, thus prolonging their shelf life (Molins 2001; Sommers and Fan 2008; Stefanova et al. 2010; Rozhdestvyenskaya et al. 2006). A distinctive feature in comparison with traditional storage methods is lower energy and financial costs (Chiaravalle et al. 2010; Tikhonov et al. 2013). These features are very important in international trade and competitiveness (Konova et al. 2012; Janda et al. 2013; Cieřlik et al. 2016; Brodzicki 2016).

The combination of freezing and irradiation technology for chicken meat leads to a decrease in microbial contamination, prolonging the shelf life of meat (Javanmard et al. 2006). The use of various antioxidants during the irradiation of beef with a dose

of 2 kGy reduces microbiological contamination and contributes to the stabilization of the color of meat (Duong et al. 2008).

A number of authors found that when irradiated with even doses of more than 10 kGy, the chemical composition practically does not change but slightly changes with an increase in the radiation dose (Kraybill 1958; Read et al. 1961; Thayer et al. 1987). At the same time, irradiation of foods with a significant fat content may lead to a deterioration in the organoleptic parameters, since free radicals formed upon irradiation accelerate the oxidation of lipids (Savage et al. 1999; Sajilata and Singhal 2006; Štajner et al. 2007; Norhana et al. 2010). The higher the degree of unsaturation of fatty acids, the higher the sensitivity to oxidation and to treatment with ionizing radiation (Gölge and Ova 2008). Irradiation with high doses of radiation can lead to chemical and physical changes in meat raw materials, which can cause the occurrence of an unpleasant aftertaste.

Amino acids, minerals, and trace elements undergo slight changes during irradiation. In general, it can be noted that the change in vitamins during irradiation is analogous to changes in drying or canning. Vitamins E (α -tocopherol) and carotene are the most radiation-sensitive fat-soluble vitamins; B1 (thiamine) and C (ascorbic acid) are the most radiation-sensitive water-soluble vitamins. However, a number of authors have noted that the maximum irradiation doses had no significant effect on B1 in pork (Thayer et al. 1993). The sensitivity of vitamins to radiation doses decreases in the following sequence: for fat-soluble vitamins, it is vitamin E > vitamin A > vitamin D > vitamin K, while, for water-soluble vitamins, it is vitamin B1 > vitamin C > vitamin B6 > vitamin B2 > vitamin PP, vitamins B9 and B12 (Diehl 1992). It was found that vitamin B1 content when irradiated with different doses decreases more in muscle tissue than in the liver (pork, chicken, beef) (Fox et al. 1993).

Practically there is no influence of irradiation on the pH of meat raw materials. An increase in the irradiation dose leads to an increase in the production of carbonyl compounds. Lower temperature of meat raw materials reduces the negative impact on smell and taste (Brewer 2009). The absorbed dose for each type of meat is different and depends on the species belonging to the fleshy tissue.

The meaty parts of beef and pork are most capable in terms of absorption, while poultry is least capable (Timakova et al. 2017). But, at the same time, there are many questions concerning the rational dose of irradiation depending on the chemical composition of meat raw materials.

3 Purpose of Study and Research Methods

In this connection, the aim of the study is to determine the optimal doses of irradiation of chilled beef depending on the fat content. As the object of the study, chilled beef meat with different fat contents from the posterior lumbar part of the carcass after 48 h from the moment of slaughter of cattle was selected, defined as

groups A and B. Meat of group A is characterized by a thicker layer of subcutaneous fat (higher-fat meat) contrary to group B meat (medium-fat meat).

Before carrying out the experiments, it was established experimentally that cooled beef meat had not previously been exposed to ionizing radiation, as evidenced by the absence of EPR signals. In each of the groups, the control sample (the first one) was not treated with ionizing radiation. The second and third samples were, respectively, irradiated with doses of 3 kGy and 9 kGy using a linear electron accelerator of the UELR-10-10C2 model. To establish the fact of irradiation of meat raw materials, the electron paramagnetic resonance (EPR) method is used. In the process of spectroscopy, EPR signal is fixed with the help of the spectrometer, which is caused by the appearance of highly active free radicals as a result of the chain reaction of molecule excitation under the action of ionizing radiation (Timakova et al. 2016).

Organoleptic indicators were assessed visually. For research and determination of chemical composition and physicochemical and microbiological indicators, the following research methods were used: potentiometric method for pH determination, drying at a temperature of 103 ± 2 °C to determine the mass fraction of moisture, dry ashing method for the mass fraction of ash, Kjeldahl method for the mass fraction of protein, using the amino acid analyzer AAA 339 (Microtech) to determine amino acid composition of proteins, colorimetric method to determine the content of lipids, bacteriological analysis, binding of amino groups and ammonia with formaldehyde in a neutral medium to determine amino-ammonia nitrogen, titration of free fatty acids with sodium hydroxide solution to determine acid number, and using the reaction between fat oxidation products and potassium iodide in a solution of acetic acid and chloroform to determine peroxide number. Our studies were conducted in five replicates. To process the data obtained, we used the method of variational statistics with Student's t-test.

4 Experimental Part

At the first stage, an organoleptic assessment of the cooled meat of group A beef (high-fat meat) and group B (medium-fat meat) was performed before irradiation and after irradiation with doses of 3 kGy and 9 kGy (Table 1). The analysis bears the features of an optimization task that has its roots in many disciplines and fields (e.g., Strielkowski and Lisin 2016).

Control samples after storage for 72 h and 108 h for organoleptic indicators can be classified as stale meat. In radiation-treated meat, during storage for 72 h and 108 h, the organoleptic parameters have not changed.

There is no significant difference in pH depending on the fat content of the meat. The pH in the control sample is 5.8; in meat, treated with a dose of 3 kGy, 5.8; and in meat, treated with a dose of 9 kGy, 5.8. After storage for 36 h, the pH has not changed; after storage for 72 h in a control sample, the pH is 5.2; in meat, treated with a dose of 3 kGy, 5.7; and in meat, treated with a dose of 9 kGy, 5.7; after storage

Table 1 Organoleptic evaluation of chilled beef meat

Indicator	Beef chilled, unirradiated	Beef chilled, irradiated with a dose of 3 kGy	Beef chilled, irradiated with a dose of 9 kGy
Color of meat	Light red	Red	Red, slightly brownish
Muscles on a cut	Slightly damp, do not leave a wet spot on the filter paper	Slightly damp	Slightly dried-up meat
Consistency	On the cut, the meat is dense and elastic; the fossa formed by finger pressure is quickly aligned	The meat is elastic on the cut; the fossa formed by finger pressure is aligned for up to 15 s	On the cut, the meat is slightly looser, less elastic, and softer in meat of higher fatness. The fossa formed when pressed with a finger is leveled more slowly (up to 40 s)
Smell	Inherent for fresh meat	Inherent	Inherent, with a train of aroma of "yesterday's" meat. In the meat of higher fatness, a slight odor of sedimentation appears
Condition of subcutaneous fat	Consistency solid, crumbled while crushing	Consistency is solid; crushing produces soft crumbs	Consistency is soft, does not crumble when crushed
Color of subcutaneous fat	White	Slightly yellowish	Light yellow – in meat of average fatness. With a cream shade – in meat of higher fatness

Source: Own results

for 108 h in a control sample, the pH is 5.0; in meat, treated with a dose of 3 kGy, 5.7; and in meat, treated with a dose of 9 kGy, 5.5.

It has been experimentally established that the chemical composition of chilled beef meat has changed insignificantly (Table 2).

With a high degree of reliability, it has been established that as the dose of irradiation increases, the moisture content decreases and the dry residue increases. The protein content in the meat of higher fatness irradiated with a dose of 3 kGy increased by 0.2% compared to the control sample. The protein content in the meat of higher fatness irradiated with a dose of 9 kGy increased by 2.7% compared to the control sample. In medium-fat meat, the protein content compared to the control sample increased by 0.3% and 1.0%, respectively. It was found that in meat of higher fatness, a more significant decrease in the lipid content occurred when irradiated with a dose of 9 kGy as a result of higher rates of their oxidation with the formation of peroxide compounds. The lipid content in the meat of higher fatness, irradiated with a dose of 3 kGy, decreased by 1.5% compared to the control sample and, when irradiated with a dose of 9 kGy, by 10.5% compared to the control sample. In the meat of average fatness, the lipid content decreased by 1.7% and 6.4%, respectively, compared to the control sample. There is a slight increase in ash content. An

Table 2 Chemical composition of chilled beef meat

The dose of irradiation, kGy	Type of meat	Content of, %			
		Water	Protein	Lipids	Ashes
0	Meat of the highest fatness	65.0 ± 0.02	21.8 ± 0.01	12.1 ± 0.02	1.1 ± 0.01
	Meat of the average fatness	67.6 ± 0.03	21.7 ± 0.01	9.7 ± 0.01	1.0 ± 0.01
3	Meat of the highest fatness	64.9 ± 0.02	21.9 ± 0.01	12.0 ± 0.02	1.2 ± 0.01
	Meat of the average fatness	67.0 ± 0.02	22.2 ± 0.01	9.7 ± 0.01	1.1 ± 0.01
9	Meat of the highest fatness	63.2 ± 0.02	23.9 ± 0.01	11.5 ± 0.03	1.4 ± 0.01
	Meat of the average fatness	66.6 ± 0.01	22.7 ± 0.01	9.4 ± 0.02	1.3 ± 0.01

Source: Own results

insignificant change in the amino acid composition in irradiated meat was found in comparison with the control sample (including the indispensable amino acids): a decrease in the content of leucine, lysine, and threonine and a slight increase in the phenylalanine content. The meat fatness category and the dose of irradiation do not have a significant effect on the amino acid composition.

The shelf life of chilled meat of small-piece boneless semifinished products is not more than 36 h at a storage temperature of 4 ± 2 °C. As a result of studies of chilled beef meat, the following microbiological indicators were established:

- After 36 h, the QMAFAnM (Quantity of Mesophilic Aerobic and Facultative Anaerobic Microorganisms) value is significant for group A meat: a control sample of 3.6×10^4 CFU (colony-forming unit)/g; meat, irradiated with a dose of 3 kGy – 6.0×10^3 CFU/g; meat, irradiated with a dose of 9 kGy – 1.0×10^3 CFU/g.
- After 36 h, the QMAFAnM value is significant for Group B meat: a control sample of 2.1×10^4 CFU/g; meat, irradiated with a dose of 3 kGy – 5.2×10^3 CFU/g; meat, irradiated with a dose of 9 kGy – 0.8×10^3 CFU/g.
- After 72 h, the QMAFAnM value is significant for group A meat: a control sample of 2.0×10^6 CFU/g; meat, irradiated with a dose of 3 kGy – 3.8×10^4 CFU/g; meat, irradiated with a dose of 9 kGy – 9.0×10^3 CFU/g.
- After 72 h, the QMAFAnM value is significant for group B meat: a control sample of 1.8×10^6 CFU/g; meat, irradiated with a dose of 3 kGy – 1.2×10^4 CFU/g; meat, irradiated with a dose of 9 kGy – 5.8×10^3 CFU/g.
- After 108 h, the QMAFAnM value is significant for group A meat: a control sample of 1.6×10^8 CFU/g; meat, irradiated with a dose of 3 kGy – 8.8×10^5 CFU/g; meat, irradiated with a dose of 9 kGy – 7.0×10^4 CFU/g.
- After 108 h, the QMAFAnM value is significant for group B meat: a control sample of 1.5×10^8 CFU/g; meat, irradiated with a dose of 3 kGy – 7.4×10^5 CFU/g; meat, irradiated with a dose of 9 kGy – 6.3×10^4 CFU/g.

Table 3 Freshness indicators of chilled beef meat (after 36 h/72 h/108 h)

The radiation dose, kGy	Type of meat	Indicator		
		Amino-ammonia nitrogen, mg %	Peroxide number, mole of active oxygen per 1 kg	Acid number, mg KOH
3	Meat of the highest fatness	14/29/52	2.8/3.8/6.1	1.2/1.7/2.1
	Meat of average fatness	12/26/47	2.7/3.6/5.8	1.1/1.6/2.0
9	Meat of the highest fatness	20/33/61	2.9/3.9/6.2	1.3/1.9/2.5
	Meat of average fatness	19/31/59	2.8/3.7/6.0	1.2/1.8/2.1

Source: Own results

The obtained data show that the microbiological parameters of the unirradiated meat correspond to the norms of TR CU (Technical Regulations of the Customs Union) 021/2011 only within the expiration dates (i.e. up to 36 hours), but when different doses of meat of different groups of fatness are irradiated, they correspond to the above norms beyond the expiration dates.

In all samples, there are no microorganisms of the CGB (coliform bacteria) group, *S. aureus*, sulfite-reducing *Clostridium*, and pathogenic microorganisms, including *Salmonella* and *Listeria monocytogenes*.

Amino-ammonia nitrogen, peroxide number, and acid number are indicators of the freshness of meat. In the control samples of unirradiated chilled beef meat of both groups within the expiration dates (36 h), these indicators correspond to the fresh meat category, but after 72 h and 108 h, they correspond to stale meat categories. Table 3 shows the data on irradiated meat.

Radiation-processed chilled beef meat after 36 h, 72 h, and 108 h of storage is classified as fresh meat. For meat of higher fatness, peroxide and acid numbers have a higher value than meat of average fatness; higher rates are observed with increasing shelf life.

5 Conclusions

Our research has direct implications for leadership in business and economics. When it comes to the leading technologies of processing meat, it can be asserted that the introduction of radiation technologies (treatment with ionizing radiation) will allow increasing the efficiency of the applied technologies and increasing the expiration dates due to microbiological safety and ecological compatibility of technological processes. It has been experimentally established that organoleptic and physico-chemical indices are almost identical when irradiated with a dose of 3 kGy for chilled beef meat of different fatness. When processing a higher dose – 9 kGy in the meat of

higher fatness – more active processes of lipid oxidation are observed, and, accordingly, more critical indicators of organoleptic evaluation, physicochemical indices, and freshness indicators appear. Microbiological indicators have the lowest values when irradiated with a dose of 9 kGy. Based on the above, it has been established that the treatment of chilled meat raw materials with ionizing radiation at doses of 3 kGy and 9 kGy enables to increase the shelf life by three or more times, which makes it possible to consider the technology using ionizing radiation as a priority for chilled meat raw materials.

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Leadership of Large Cities of the Ural Region in Conditions of New Industrialization



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Abstract Russia's crisis recovery and the transition to a new industrialization model and a regime of sustainable development require new approaches in national, regional, and urban development. In the solution of this complex task, an important role belongs to the cities with over a million people, which concentrate huge economic, intellectual, innovative, management, and other potentials. This turns them into the poles (or cores) of growth not only of the regional but also of the national economy. The purpose of this article is to examine trends in the retrospective change in the socioeconomic situation of the Ural macroregion and to assess the possibility of their increment into positive ones through the prism of the development of the Ural cities as the nuclei of the growth of Russia's new economy on the way of a new industrialization.

1 Introduction

The Ural macroregion, according to the existing economic regionalization of the country, is delineated by the borders of seven constituent entities of the Russian Federation – Sverdlovsk, Chelyabinsk, Kurgan, and Orenburg regions, Perm Krai, and the republics of Bashkortostan and Udmurtia. In this paper, we consider the Ural macroregion as a relatively integral territorial and economic formation, determined by a natural basis interconnected in many parameters, intra-regional flows of raw materials, energy, end products, labor power, and common economic, demographic, ecological, transport, and other problems.

The interconnected and interdependent development of the seven subjects of the Russian Federation led to the formation of a single regional economic area, the basis of which is formed by the historically developed industrial complex with the dominance of machinery manufacturing, metallurgy, mining, chemicals, oil and

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gas, timber, agro-industry, fuel and energy, and construction and industrial production. This process is very important in the context of studying regional development and economic growth and can be applied in many other countries experiencing similar or slightly similar problems and issues (Brodzicki 2016; Cieřlik et al. 2016). These findings constitute a special added value to our study.

2 Literature Review

The study of scientific sources allows to single out a series of works dedicated to the deep economic-geographical and economic analysis of the Urals (Kolosovsky 1929; Komar 1964; Animitsa et al. 1992). It should be noted that, within the framework of regional science, the Ural scientific school has developed its traditions of studying the dynamics, trends, factors, and problems of development of the Ural macroregion as the middle region of the country (Sharygin 1978; Tatarkin et al. 1999; Surnin 2003; Animitsa et al. 2009; Lisin et al. 2014, 2016; Lisin and Strielkowski 2014; Romanova 2014; or Silin et al. 2016a).

The Ural macroregion occupies leading positions in the economy of modern Russia. The evidence is the indicators of its share in the all-Russian value. The share of the Ural macroregion accounts for 4.81% of the total area of Russia (according to data for 2015), 12.90% of the country's population, 10.54% of the gross regional product, 13.87% of the total volume of shipped industrial output, 9.63% of the total volume of investments in fixed assets, 10.40% of the total value of fixed assets, 13.04% of the number of employed people, and 16.69% of the total number of employed people in the industry of Russia. However, from the perspective of understanding the trajectory of the development of the major Ural's leading cities, it is worth dwelling on the main trends of its functioning.

3 Tendencies of Development: Ural Region

The authors singled out 11 clearly defined tendencies. All these tendencies will be now discussed in greater detail and analyzed in depth. First of all, there is the decrease in the share of the Ural macroregion in the total volume of Russia's gross regional product (Fig. 1).

For the considered period, the share of the Urals in Russia's gross regional product decreased from 14.50% to 10.55%, i.e., by 3.95 points. This downward trend should be viewed as very negative, since the gross regional product is an integral indicator of the economic situation in the studied territory.

Second, there is a decrease in the share of the Ural macroregion in the total volume of Russia's shipped industrial output. It is alarming that for 11 years from 2005 to 2015, the Ural macroregion lost 2.76% of the total share of the all-Russian

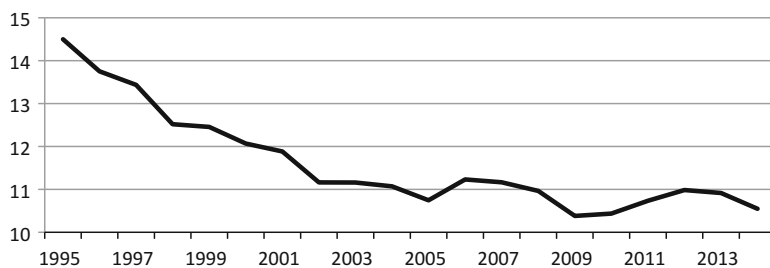


Fig. 1 The share of the Ural macroregion in the total volume of the gross regional product of the Russian Federation, in %

index of shipped industrial output. Unfortunately, the data for the recent periods 2011–2015 cannot be regarded as a refraction of the current negative trend.

Third, there is a decrease in the share of the Ural macroregion in the total volume of investment in fixed assets and in the total value of Russia's fixed assets (Fig. 2).

The curves presented in Fig. 3 illustrate the downward dynamics, although the fall occurs in different ways. The decline in the position of the macroregion in terms of the value of fixed assets has been observed since 1999 gradually every year, which explains the higher rate of decline of the region in terms of “investment in fixed assets.” The investment curve has a downward trend, but the periods of recession have been replaced by a slight rise, caused by the implementation of individual investment projects. However, they could not rectify the situation in the macroregion. Today, attempts to break a downward dynamics fail.

Fourth, there is a decrease in the share of the Ural macroregion in the all-Russian value of the cost of technological innovation. For the period of 1996–2015 (20 years), there was a significant reduction in the share of the Ural macroregion in the all-Russian value of the cost of technological innovation, reducing the position of the macroregion by 13.8%. In 1996 the indicator was 25.8% and in 2015 only 12.0% (losses were more than double).

Given the fact that technological innovation is the end result of innovation, which has been embodied in the form of a new or improved product or service introduced on the market, this process should be considered as extremely negative. This is also true for many EU countries (Chvátalová 2016). Moreover, if the economic crisis of 1998 contributed to the growth of the positions of the Ural macroregion in the all-Russian significance, the 2008 crisis led to a deep fall of this indicator. For the period of 2008–2015, a downward dynamics almost did not stop. The Ural macroregion lost 17.5 points of its positions during this period or from 29.5% in 2008 to 12.0% in 2015 (losses were 2.5 times). It caused the following emerging negative trend, which is also the result of deindustrialization of the economy of the Ural macroregion.

Fifth, there is a lag of the Ural macroregion from the all-Russian dynamics of the production of innovative goods, works, and services (Fig. 3).

As innovative products, works, and services are, first of all, new developments or those subjected to different degrees of technological changes during the last 3 years,

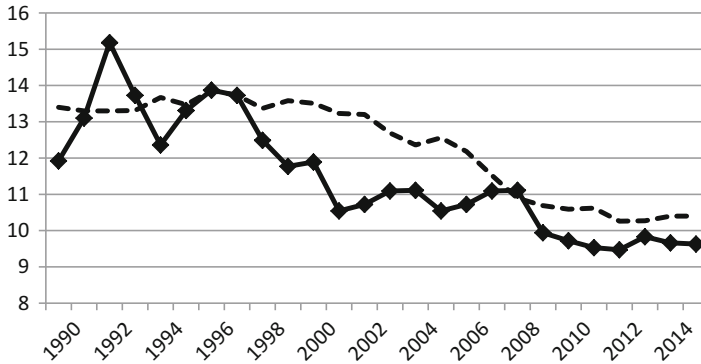


Fig. 2 The share of the Ural macroregion in the total volume of investments in fixed assets (solid line) and in the total value of fixed assets (dotted line) of the Russian Federation, in %

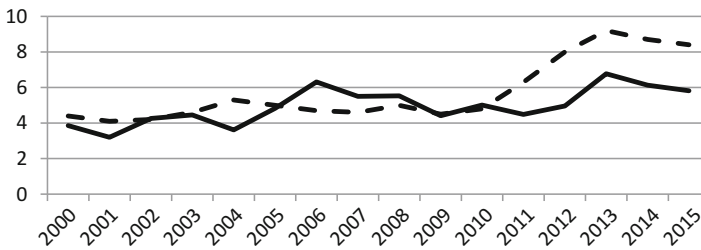


Fig. 3 The share of innovative goods, works, and services in the total volume of shipped products across Russia (dotted line) and the Ural macroregion (solid line), %

this process of economic dynamics should also be evaluated as extremely negative. It should be noted that the bright unambiguous process of backlog begins since 2009, which is also a consequence of the economic crisis of 2008–2009. In 2009 the indicator of the Ural macroregion was 98.1% of the total Russian value and in 2015 only 69.2%; the fall reached 1.4 times.

Sixth, there is a decrease in the share of the Ural macroregion in the average annual number of employed population of Russia. The average annual number of employed people in the economy of the Ural macroregion in 1990, the beginning of market reforms, was 10.3 million people or 13.63% of the total Russian value. By 2015 (or for 26 years), this indicator has been reduced to 8.8 million people or by 1.5 million people.

It should be noted that the dynamics of the decline in employment in the economy of the Ural macroregion for 1990–2015 proceeded more intensively than the national average, where the decline was 10.45% compared to 14.32% of the regional level. The main reason for this is the reduction in the number of people employed in industrial production. If in 1995 2.7 million people were employed in this sphere of the Urals, then in 2015 the number is 2.1 million people.

Seventh, there is an observed slowdown in the dynamics of industrial production in the regions of the Urals. Indices of industrial production in all regions of the Urals for the period 1991–2014 showed unstable dynamics. Common is the deep decline in 1993–1994 and in 2008–2009 as a consequence of the manifestation of the world economic crisis. It is important to note a deeper decline in the indicators of the regions of the Urals in comparison with the average Russian value, which illustrates the high dependence of the regional economy on the world economic situation. The most acute impact of the global conjuncture was felt in the territory of the Urals, where the share in the industrial structure of manufacturing is higher (Perm Territory, Sverdlovsk and Chelyabinsk regions). As a result, no positive growth dynamics after the recovery from the crisis in 2011–2014 should be noted as a negative trend in the development. In general, the trend continues to slowly decline. One of the significant factors of the decline in the indices of industrial production in the regions of the Urals is the downward dynamics of world prices for raw materials – the main products of enterprises, which indicates that there is no prospect for a raw scenario for the development of the macroregion. The decline in world prices for raw materials is noted as one of the global trends in the dynamics of recent years, beginning in 2010.

The Urals metallurgy, being integrated into the world market, could not avoid fluctuations in prices on the London stock exchange and, first of all, on aluminum, copper, nickel, and iron ore. The situation in the metallurgical complex, which belongs to the basic branches of the Urals, has become noticeably more complicated. Further increase in exports is unlikely, and, therefore, production growth is possible by means of the expansion of the domestic market. The current situation inevitably leads to the preservation of the dependence of the social and economic development of the Urals in general and its territories on the global conjuncture on energy commodities.

The economic crisis of 2008–2009 vividly demonstrated the one-sided development of Russian economy, the strong dependence of the country and its regions on the prices and demand for raw materials that make up the bulk of Russian exports. Therefore, the nearest promising task of the domestic economy is to get rid of this “narcological” dependence, from oil and gas “needles,” to diversify the structure of the economy and exports. The direction of diversification is to significantly increase the share in exports and, therefore, in the structure of social production of end products with a high share of added value and innovative goods and services (Aganbegyan 2012).

Eighth, there is an increase in the share of machinery, equipment, and vehicles in the commodity structure of imports of the Ural macroregion (Fig. 4). This trend is directly correlated with the overall Russian dynamics. In particular, the share of imports in the machine tool industry and light industry currently in Russia as a whole exceeds 90% and, in heavy engineering, radio electronics, and medical equipment, 80% (Bodrunov 2016).

In general, in the regions of the Urals, the share of machinery, equipment, and vehicles in the commodity structure of imports increased in 13 years from 2001 to 2014 by 16.7% that is higher by 2.1 points of the average Russian value. If in 2001

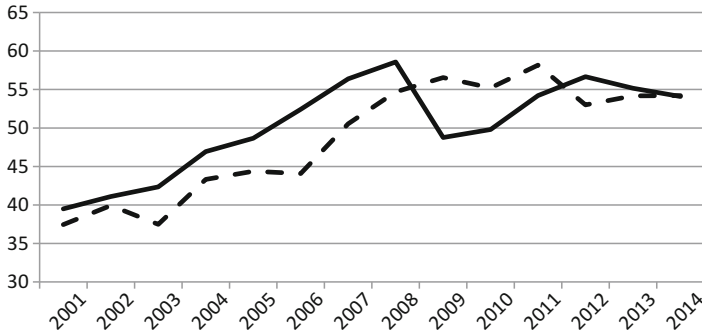


Fig. 4 The share of machinery, equipment, and vehicles in the commodity structure of imports of Russia (solid line) and the Ural macroregion (dotted line), in %

the share of imports of this group of goods was 37.5%, then in 2014 this figure exceeded 54%.

The analysis of structural changes shows that different types of economic activity have adapted differently to changing conditions, including the crisis. The dynamics of the structure of the economy of the Urals in terms of the “number of employed people” for the period from 2000 to 2015 (16 years) demonstrates a vivid manifestation of deindustrialization processes.

Ninth, there is the maximum reduction in the share of employed people in manufacturing industries in the structure of the economy of the Ural macroregion. For the period in question, the number of employed people by type of economic activity – “manufacturing industries” – fell by 4.25 points or from 23.69% in 2000 to 19.44% in 2015. The absolute indicator shows a decrease in the number of employed people in this sector of the economy by 388.3 thousand people for all regions of the Urals.

Tenth, there was a decrease in the number of employed people in the industrial production of the Ural macroregion. The total number of employees in the industrial production (C, D, E) of the Urals has decreased over the period 2000–2015 by 444.8 thousand people, having caused a consequence of a decrease in the share by 4.85%. If in 2000 29.01% of all employed people in the economy were occupied at industrial enterprises of the macroregion, then in 2015 the number is 24.15%.

For the Ural macroregion, this downward trend is negative, as the industry is a branch of its specialization. The result was not only the deindustrialization of the economy of the Urals but also the loss of professional personnel and the engineering school, as well as the critical condition of single-industry towns, most of which are industrial.

Eleventh, one has to notice the primitivization of the structure of the economy of the Ural macroregion. The tables show activities in which the share of employed people has increased significantly: “wholesale and retail trade; repair of motor vehicles, motorcycles, household products and personal items.” In 2000 the share of this type of activity was 11.12% of the total number of employed people in the

economy; in 2015 the number is 17.45%, resulting in an absolute increase of 224.1 thousand people.

This sector of the economy in the conditions of downward dynamics in the industry provided jobs to a number of former industrial specialists. However, unfortunately, these types of activities cannot be regarded as high- and medium-technology or science-intensive. They do not form the basis of the fifth and sixth waves of innovation.

The only way to overcome the negative trends in the development of the economic space of the Ural macroregion highlighted in the study is the new industrial modernization of traditional industries, combined with the new industrialization, the development of the fifth and sixth waves of innovation (Animitsa and Silin 2013; Popov 2014; Glazyev 2015; Kulkov 2015; Silin et al. 2016b). The authors of this article see this path in the outstripping development of Ural leading cities, and, therefore, it is proposed to consider their current socioeconomic condition (Tsvetkov 2012).

The idea of 149 Ural cities, including four cities with a million population, with about 13.8 million people or 73% of the population of the macroregion, is primarily associated with the formation, development, and transformation within them for many decades of a powerful mining and military industry, heavy industry, which satisfied the nationwide needs.

Over three centuries, within the Ural macroregion, a kind of industrial and cultural urban matrix has been formed, the core of which constitutes industrialism. It became the main principle of organization of the production sphere and also formed the value and behavioral relations of the citizens. Even Ural village is organically connected to industrial production. Within this urban matrix, a regional community is being formed, developed, and reproduced, and it's there where its life system is based.

At the beginning of the twenty-first century, the cells of the Ural industrial and cultural urban matrix began to transform considerably under the onslaught of "external" and "internal challenges," which threatens the degradation of the identity of the Ural macroregion.

In the conditions of the formation of market relations, serious socioeconomic processes occur in cities with a million population.

Cities with over a million people belong to the most complex type of spatial socioeconomic objects. They have been created by humans for many centuries, and when a certain amount of population and economic power is achieved, they begin to develop according to their immanent laws.

In the 2000s, elements of the so-called post-industrialization and, especially, the services sector began to be actively reproduced in the highly weakened industrial sphere of the region's largest cities (see Table 1).

The population growth in the largest cities of the Urals in the majority took place due to the expansion of their administrative borders and the receipt, as a result of the additions at the expense of the population of the suburbs. One of the key indicators of the consumer of services can be the introduction of housing, since most of it is built and purchased by the population at their own expense or on credit. The leader in

Table 1 Comparison of the main social indicators of the development of cities with over a million people, the Ural macroregion (2008–2015)

	Population on 01.01 of the corresponding year, thousand people		Turnover of retail trade, bln. RUB		The volume of paid services to the population, bln. RUB		Housing construction at the expense of all sources of financing, thousand sq. m		The level of registered unemployment, %	
	2008	2016	2008	2015	2008	2015	2008	2015	2008	2015
1 Yekaterinburg	1354.4	1477.7	359.1	725.9	76.9	74.9	955.0	1196.9	0.81	0.83
2 Perm	987.2	1041.9	203.0	324.2	42.6	34.2	445.6	543.4	0.60	0.96
3 Ufa	1028.6	1121.4	260.0	430.0	77.3	44.8	809.9	824.9	1.58	1.25
4 Chelyabinsk	1092.5	1192.0	213.9	98.3	41.9	52.8	872.8	570.8	0.80	1.09

Source: Own results

Table 2 Comparison of the main production indicators of the development of cities with over a million people, the Ural macroregion (2008–2015)

		Manufacturing, bln. RUB		The index of industrial production, %		Investments in fixed assets, bln. RUB	
		2008	2015	2008	2015	2008	2015
1	Yekaterinburg	138.6	327.5	93.3	96.3	70.4	94.3
2	Perm	289.3	509.7	103.6	83.4	61.1	112.5
3	Ufa	192.6	489.3	105.1	100.8	44.6	69.4
4	Chelyabinsk	272.3	402.6	98.6	93.9	43.0	78.7

Source: Own results

housing construction is Yekaterinburg, and the outsider is Perm. In Soviet times, all major cities were clearly marked industrial centers, but in two decades the role of industrial production has significantly decreased in the structure of their economies. However, such cities as Perm, Ufa, and Chelyabinsk remain typical industrial centers, where production in processing industries exceeds the volume of retail trade (Table 2).

Favorable economic and technological opportunities for the new industrialization emerged in the largest cities, where the necessary human capital was historically formed; the corresponding scientific, technical, production, infrastructure, and other important resources were concentrated; and the traditions of industrial culture were preserved.

The new industrialization in the Urals, including in the largest cities, provides the conditions for the breakthrough of the regional economy to the sixth wave of innovation, the process of prolonged “rejuvenation” of traditional industries. The new industrialization is connected to the active formation of urban agglomerations on the basis of the Ural megacities (Yekaterinburg, Perm, Ufa, Chelyabinsk), which is in line with modern ideas about the essence of modernizing the country at the beginning of the twenty-first century. Agglomeration of cities is a natural, objective process of concentration and integration of diverse activities and populations in the largest city and its immediate surroundings.

4 Conclusions

Urban agglomerations of the Urals began to be transformed into unique spatial entities, into a specific complex object that functions and develops as a result of the interaction of various production, financial, social, political, administrative, and other structures. Therefore, the urban agglomeration cannot be created by order of city and regional officials of different rank.

At the same time, there is a great temptation in Yekaterinburg to create urban agglomerations by the will of administrative power structures. The authorities

themselves decide that it will become an urban agglomeration. Thus, so-called administrative agglomerations are created that are essentially not viable entities.

Urban agglomerations of the Urals, which are on the list of the largest agglomerations of the country, modernize and strengthen the Ural industrial and cultural matrix, integrating it into the spatial structure of the country. Some elements of the new industrialization were laid down in the Strategy for the Development of the City of Yekaterinburg, which was developed in the early 2000s in the conditions of the unstable socioeconomic and political situation in the country.

To develop the Strategy of Yekaterinburg, the necessary methodological and regulatory legal framework was prepared. A list of the main directions of the city's strategic development was defined and a portfolio of programs and projects was formed. The implementation of priority projects was carried out based on the principles of the new approach, i.e., the municipal-private partnership.

Even in the conditions of a severe economic crisis and the degradation of the industrial complex in the city, the Strategy justified the need for industrial restructuring on a new technological basis, preserving Yekaterinburg as the largest industrial center of the country with a high share of a knowledge-intensive sector in its structure.

For the first time in the practice of city strategic planning, in conjunction with the Strategy of Yekaterinburg, the General Plan of the city was developed, taking into account the city's needs in creating new jobs, recreation areas, and social and infrastructure facilities. It should be emphasized that the emphasis on the new industrialization is evident also because it addresses the historical experience of the Urals, to the bright industrial and cultural urban matrix that contributed to the solution of large-scale national tasks.

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Transport Infrastructure of the Future: Technology Leadership in the Industry 4.0 Concept



Viktor Blaginin, Petr Mihaylovskiy, and Svetlana Pyankova

Abstract The transport infrastructure has long been considered as a link in the socioeconomic process of the territory formation and development. In spite of the fact that the transport infrastructure does not create the product itself, it participates in every system-forming process. Therefore, the purpose of the article is to consider “new opportunities” for the development of transport in Russia and in the world as a whole. The study is based on the document developed in Germany on Industry 4.0 and the emerging Industry 5.0. In our paper, we make an attempt with the purpose to forecast and model the level of development of the transport industry of the future for short- and medium-term periods. The paper is therefore focused on the leadership aspect of technology related to the transport economics. Our results might be of special interest for researchers as well as for state planners, stakeholders, and politicians responsible for the transport and transport infrastructure.

1 Introduction

The territorial differentiation of many countries, especially the largest, Russia, pre-determines the need to analyze the socioeconomic development of the regions, taking into account their specificity. First of all, this is the difference in the scale of the territory. In modern conditions, covering this space for our country is of paramount importance, and it is important to overcome space within as little time as possible. In economic science, this phenomenon was called the spatial-temporal paradigm of territorial development (Animitsa and Sukhikh 2007; Machnacek et al. 2015; Niño-Amézquita et al. 2017).

Transport represents the only branch of economy that has the ability to narrow space and reduce time costs. It is important that transport participates in every production process, being a link between the producer and the consumer. Since

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the density of the railroad track on the territory of the country is not sufficient, the motor transport takes a special load on itself. The lack of development of transport infrastructure that ensures efficient functioning is especially easy to be seen at the level of road transport.

Theoretical bases of understanding the essence of transport infrastructure are laid by scientists-specialists of various scientific fields: regional economy, logistics, and transport economics (Lisin et al. 2014; Zlyvko et al. 2014; Simionescu et al. 2016). However, transport economists are focused on researching the technical features of the development of this type of infrastructure, and logisticians study transport flows as the cumulative part of the production process.

On the other hand, regional economists view transport infrastructure as a tool for narrowing space and accelerating social and economic ties (reducing communication time (Dobyndo 2008)), which increases the efficiency of the functioning and development of the territory.

2 Literature Review

The positioning of the transport infrastructure as a backbone and dominant, at the regional level, factor of development and spatial organization of the territory pre-determines the need to analyze the conditions that regulate the functioning of this type of infrastructure (Ciešlik et al. 2016). The typology system of the factors influencing the formation and development of transport infrastructure should be made taking into account its characteristics as one of the elements of the infrastructure complex and also as a separate socioeconomic system and a form of support for the activities of economic entities on the territory (Tvaronaviciene et al. 2015; Streimikiene et al. 2016; Zielińska 2016; Varanavicius et al. 2017).

Formation and development of transport infrastructure as an integral element of the regional infrastructure complex is subject to the laws of the systemic functioning of the infrastructure and, consequently, to the influence of the standard set of factors for the formation and development of national economies (Morselli 2015; Gurbanov et al. 2015). However, the distinctive features, based on the connection of the transport infrastructure with the territory and its characteristics and the degree of interaction and complementarity with other infrastructure elements of the region, oblige to formulate specific factors affecting the functioning and spatial location of objects of this type of infrastructure (Brodzicki 2016; Blaginín et al. 2017).

The factors that hamper the development of transport infrastructure as an element of the regional infrastructure complex and a pole of economic growth of the territory and of Russia as a whole are considered further.

External factors are divided by transport specialists into two groups: negative and those capable of generating accelerated rates of infrastructure development. As positive external factors affecting the creation of new transport infrastructure objects, those that become possible points of growth in the region's economy can be noted, namely:

- Globalization and integration of the region's economy into the world's logistic economy (Pecherskaya 2015).
- World transition to the "new normality." Arguing about the essence of the "new norm" for the old industrial regions, representatives of the Ural regional school reduce it to the need of introducing extraordinary measures that allow the economy of the region to develop to a new level (Silin et al. 2016). The authors believe that such a measure is the enhanced development of transport infrastructure on the territory.
- Development of the tourist and business climate.

Internal factors are much more important for modern economic processes. The main factors in the opinion of the authors, influencing the formation and development of transport infrastructure, are the standards of the current technological order and the Industry 4.0 platform (Batista et al. 2017). And just the transport itself and transport infrastructure are a reflection of the stage of industrial revolution, within which socioeconomic processes take place.

Scientists distinguish four industrial revolutions. As it was noted, in the transport industry, it is easy to track the changes. The first industrial revolution is associated with the creation of steam engines; the second, the creation of gasoline and electric motors; the third, the automation of production based on the use of information technology; and the fourth, the transition to, which in 2013 was announced by Germany, the use of robotics and artificial intelligence. According to Russian experts, Russia is now at the stage of joining the third industrial revolution, but the state authorities set the task of advancing development through catching up modernization of production facilities (Industrie 4.0 2015). To do this, it is necessary to assess the challenges to the transport infrastructure, formed by the Industry 4.0 concept, using the example of road transport.

3 Industry 4.0 Technology

Technology of Industry 4.0 is leading at the moment, but only a few countries can provide such a serious level of progress. Naturally, first of all, it is necessary to consider the two main components of the transport industry: transport and infrastructure serving its activities. As for transport itself (the vehicles), the dominant concept of the fourth industrial revolution, firstly, involves intelligent transport (Asaul et al. 2016), independent of the human factor, and, secondly, intellectual production of vehicles, while intelligent production networks also allow minimum human participation, which reduces costs and guarantees high product quality (Porter and Heppelmann 2014; Seiter and Sejdic 2015).

The trend of introducing intelligent transport is one of the most urgent for today. A lot of scientific works and researches are devoted to this subject; it is considered a research front. Intelligent transport implies automatic interaction with all participants of the transport market and the flow, providing the maximum speed and security, since it has abstracted behavior.

Continuously growing demand for passenger and freight traffic puts forward new increased requirements for transport communications and for vehicles. Street networks of previously established large cities, especially their central regions, according to the geometric pattern and density, as well as the technical characteristics and parameters of individual highways, can no longer provide normal working conditions for passenger and freight transport. In many cities, the traffic intensity during peak hours on certain streets exceeds their estimated throughput by 1.5–2 times. For example, in the morning peak time, the speed of traffic within the city of Yekaterinburg, despite the permitted traffic rules for 60 km/h, in most areas does not exceed 40 km/h, and upon approaching the city center, it drops to 10–20 km/h.

The main idea of the functioning interconnection of public and individual transport is the creation of an integrated transport system that provides optimal transport services for the entire population of the city with the least damage to the environment.

In such a system, public transport must provide better conditions than an individual one on the directions of mass regular passenger traffic and individual transport – the best opportunities and amenities for occasional cultural and domestic trips and for communication with remote country recreation areas. To do this, it is necessary to increase the comfort and regularity of public transport, the creation of a system of roads that provides convenient communication of all areas of the city with recreation areas, and the appropriate placement of temporary and permanent storage (parking) of individual cars.

Improving the interaction between urban and suburban transport is achieved by rationally placing suburban railway stations and bus stations separately in key areas in conjunction with the junctions and terminus of the most powerful city public transport, as well as the introduction of intercity transport lines and the laying of city high-speed lines.

The ongoing decentralization of the economy has led to the emergence of new transport links between regions, as well as the emergence of foreign ties, the implementation of which does not require forced entering (because of the current network configuration) into large cities. The configuration of the road network is largely imperfect and has a clear radial structure. There is not enough opportunity to choose an alternative route of travel, and in many areas there is practically no such possibility. This leads to motor vehicle reruns and overloading of traffic junctions near major cities (Ignatyev 2003). These problems are leveled by the introduction of intelligent transport systems on the Industry 4.0 platform.

Applied to the present time, methods of transport and urban planning do not always provide this accuracy because of the shortcomings of the methods themselves, poor knowledge of the current patterns, and incompleteness and inaccuracy of the initial information on the basis of which the models are calibrated.

Increasing the reliability and accuracy of transport calculations is now becoming particularly important in connection with the overall tasks of improving the efficiency of investments and improving the living conditions in our cities.

The designers are tasked not only to develop proposals for the optimal development of urban transport systems for the distant future, but, first of all, for the most rational use of available material resources and the appropriations planned for the next 5 years.

In complex transport schemes, these tasks are solved to a large extent intuitively or with the help of insufficiently reliable calculations. There was a need to develop methods for optimal design of transport systems at fixed costs and methods for determining the optimal sequence in the implementation of the developed project proposals.

4 Conclusions

In order to match the level of development of advanced countries operating within Industry 4.0, it is necessary to revise the current understanding of the elements of the transport infrastructure. Only recently, Russian transport economists began to include such elements as shopping complexes, dedicated strips for special vehicles, driving schools, and power lines. The next stage is the integration of the elements of intellectual transport into the traditional composition of the elements of the transport infrastructure. Among them, it is necessary to allocate intellectual roads, intelligent car service, intellectual markets for the sale of vehicles, new types of fuel stations, intelligent traffic lights, and other atypical means of traffic regulation.

Adapting to the inevitably coming trends of the fourth industrial revolution in the transport sector will make it possible to bring the production process and social and economic development processes of the regions to a qualitatively new level. Such a transition should initially take place in the regions of advanced development, with a high level of investment attractiveness. Transport communication infrastructure of the Industry 4.0 level will create the opportunity for end-to-end management of all links in the life cycle of intelligent transport, which will accelerate the processes of interregional integration and will contribute to the reduction of space, ensuring a high level of security and fast exchange of information.

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Conclusions: Is Leadership for the Sustainable Development of Business and Education a Paradox or a Necessity?



Wadim Strielkowski and Oksana Chigisheva

Abstract This conclusion focuses on one important question that goes like as follows: “Is leadership for the sustainable development of business and education a paradox or rather a necessity?”. We contemplate on the issues of leadership, sustainable development, education, as well as business and economics and provides our concluding thoughts and remarks on the topic.

To conclude our volume of proceedings entitled *Leadership for the Future Sustainable Development of Business and Education* based on the 2017 Prague Institute for Qualification Enhancement (PRIZK) and IRC “Scientific Cooperation” International Conference, we would like to pose ourselves as well as our curious readers one important question, namely, “Is leadership for the sustainable development of business and education a paradox or rather a necessity?”.

All in all, we tend to think that leadership, whether in its social, economic or academic form, is becoming a necessity for the sustainable development of business and education in the highly globalized world of the twenty-first century.

The world we live in keeps adapting and changing to the new challenges and processes. New technologies are being introduced, while the old ones are becoming more and more obsolete. Information is becoming the new oil of the twenty-first century, and thanks to the Internet, it can be created, shared, viewed and unfortunately also misused by virtually anyone. Social networks are replacing face-to-face communication and impose new rules on social interactions between humans. Such challenges as the ubiquitous ICTs with their implications in the forms of Big Data,

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Internet of things, Internet of Energy and other related issues are becoming the new reality. One needs to adapt to that and to learn the new tricks, and one is also pressured to do that quickly in order to keep at pace with the new advances in science and business and the technological progress.

Moreover, we should not forget about the psychological and social aspect of the new millennium. The avalanche of information places restrictions on the performance of people observed at work and at social life. The human brain is becoming overloaded with information that it often fails to process. As a result, burnouts at workplaces and nervous breakdowns in private lives often happen. With regard to the above, it appears important to build the emotional intelligence and to learn how to interact with other human beings in the new globalized world. Never before in human history were the modern leaders faced by so many obstacles and challenges in interpersonal relations deeply rooted in mutual trust, power of influence, social interactions and motivation. It is the task of the new leaders of the twenty-first century to learn how to overcome these obstacles and how to reach out to the people burdened by the rational inattention, information overload and access to virtually any knowledge or data in the world.

The main results and outcomes of the 2017 PRIZK and IRCSC International Conference contained in the contributions presented within the chapters of this book speak for themselves: it appears that we need leadership, both in its old and its new forms, for the sustainable development of business and education. Without the clear concept and the idea of leadership and (charismatic and/or pragmatic) leaders, the positive momentum of development will be hampered, and the progress will inevitably slow down at certain point. Therefore, leadership needs to be cherished, promoted, taught at all levels of educational process and cultivated by all forms of academic, governmental and nongovernmental institutions. All in all, it appears to us that leadership is the engine of growth and prosperity, and it needs to be oiled with appropriate actions and motives.

We believe that our readers have enjoyed our volume of proceedings and were able to locate some useful insights and information within the collection of the presented texts. We also hope that the stories and the case studies contained in this book will serve as an inspiration for academics, stakeholders, entrepreneurs and policy-makers alike. Leadership in business and education is a universal topic, and it will likely remain one in the years to come.

Best wishes,

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