

Eurasian Studies in Business and Economics 17
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Mehmet Huseyin Bilgin
Hakan Danis
Ender Demir *Editors*

Eurasian Business and Economics Perspectives

Proceedings of the 30th Eurasia
Business and Economics Society
Conference



 Springer

Eurasian Studies in Business and Economics 17

Series Editors

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Editors

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and Economics Society Conference

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Preface

This is the 17th issue of the Springer's series **Eurasian Studies in Business and Economics**, which is the official book series of the Eurasia Business and Economics Society (EBES, www.ebesweb.org). This issue includes selected papers presented at the 30th EBES Conference—Kuala Lumpur that was held on January 8–10, 2020, in Kuala Lumpur, Malaysia. The conference is **hosted by the Faculty of Economics and Administration at the University of Malaya**.

Euston Quah from *Nanyang Technological University*, Singapore; **Vedat Akgiray** from *Bogazici University*, Turkey; **Ahmed Khalid** from *Universiti Brunei Darussalam*, Brunei; and **Jonathan A. Batten** from *RMIT University*, Australia, joined the conference as the keynote speakers. During the conference, participants had many productive discussions and exchanges that contributed to the success of the conference where 134 papers by 276 colleagues from 34 countries were presented. In addition to publication opportunities in EBES journals (*Eurasian Business Review* and *Eurasian Economic Review*, which are also published by Springer), conference participants were given the opportunity to submit their full papers for this issue. Theoretical and empirical papers in the series cover diverse areas of business, economics, and finance from many different countries, providing a valuable opportunity to researchers, professionals, and students to catch up with the most recent studies in a diverse set of fields across many countries and regions.

The aim of the EBES conferences is to bring together scientists from business, finance, and economics fields, attract original research papers, and provide them with publication opportunities. Each issue of *the Eurasian Studies in Business and Economics* covers a wide variety of topics from business and economics and provides empirical results from many different countries and regions that are less investigated in the existing literature. All accepted papers for the issue went through a peer review process and benefited from the comments made during the conference as well. The current issue is entitled *Eurasian Business and Economics Perspectives* and covers fields such as human resources management, management, political economy, public economics, and regional studies.

Although the papers in this issue may provide empirical results for a specific county or regions, we believe that the readers would have an opportunity to catch up with the most recent studies in a diverse set of fields across many countries and regions and empirical support for the existing literature. In addition, the findings from these papers could be valid for similar economies or regions.

On behalf of the series editors, volume editors, and EBES officers, I would like to thank all the presenters, participants, board members, and keynote speakers, and we are looking forward to seeing you at the upcoming EBES conferences.

Istanbul, Turkey

Ender Demir

Eurasia Business and Economics Society (EBES)

EBES is a scholarly association for scholars involved in the practice and study of economics, finance, and business worldwide. EBES was founded in 2008 with the purpose of not only promoting academic research in the field of business and economics but also encouraging the intellectual development of scholars. In spite of the term “Eurasia,” the scope should be understood in its broadest terms as having a global emphasis.

EBES aims to bring worldwide researchers and professionals together through organizing conferences and publishing academic journals and increase economics, finance, and business knowledge through academic discussions. Any scholar or professional interested in economics, finance, and business is welcome to attend EBES conferences. Since our first conference in 2009, around 12,793 colleagues from 99 countries have joined our conferences and 7274 academic papers have been presented. **EBES has reached 2375 members from 87 countries.**

Since 2011, EBES has been publishing two journals. One of those journals, *Eurasian Business Review - EABR*, is in the fields of industrial organization, innovation, and management science, and the other one, *Eurasian Economic Review—EAER*, is in the fields of applied macroeconomics and finance. Both journals are published quarterly by *Springer* and indexed in *Scopus*. In addition, EAER is indexed in the *Emerging Sources Citation Index (Clarivate Analytics)*, and EABR is indexed in the *Social Science Citation Index (SSCI)* with an impact factor of **2.222** as of 2019.

Furthermore, since 2014 Springer has started to publish a new conference proceedings series (**Eurasian Studies in Business and Economics**) which includes selected papers from the EBES conferences. The series has been recently indexed by **SCOPUS**. In addition, the 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th, 19th, 20th (Vol. 2), 21st, and 24th EBES Conference Proceedings have already been accepted for inclusion in the *Conference Proceedings Citation Index-Social Science & Humanities (CPCI-SSH)*. Other conference proceedings are in progress.

We look forward to seeing you at our forthcoming conferences. We very much welcome your comments and suggestions in order to improve our future events. Our success is only possible with your valuable feedback and support!

With my very best wishes,

Klaus F. Zimmermann
President

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Part I
Human Resources

The Effect of HR Practices and Psychological Contract on Employee Performance: The Polish Experience in Business Services Sector



Anna Rogozińska-Pawelczyk 

Abstract This study examines the impact of HR practices system (such as employee resourcing, development, rewards, and relations) on employee performance (EP) (composed of their behaviors and performance) through the mediating role of psychological contract (PC) (expressed by the influence of employer on employee promises fulfilment through employee attitudes). In order to find relationships between the selected variables, and to evaluate the role of the mediator, a correlation analysis and multiple regression analysis were performed using the QUADAS tool. For the purposes of the analysis, the structural equation modelling (SEM) method was additionally applied. The quantitative research was conducted in randomly chosen knowledge-intensive companies on a testing sample of 150 representatives from the business services sector (BSS) (100 managers from the BSS and 50 knowledge employees). The study is providing proof that the HR practices have been shown to have a direct as well as indirect influence on EP, the latter being largely dependent on the fulfilment of the PC by employees and employers. In both cases, the outcomes are significantly determined by individuals' characteristics. The very fulfilment of the PC also considerably influences EP.

Keywords HR practices · Psychological contract · Fulfilment of psychological contract · Organizational performance · Business services sector

1 Introduction

The focus of the research so far has been on the key factors explaining the nature of relationships between HRM and organizational performance. Some researchers studied the role of individual HRM practices, while others explored interactions between HRM practices or HRM systems and performance. The results of both types

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of research proved useful in testing for the presence of relationships between HRM practices/systems and performance (e.g., Huselid 1995; Delery and Doty 1996; Delaney and Huselid 1996; Guthrie 2001). The advocates of an integrated approach to HRM practices argued that the clusters of similar practices were more effective in improving work performance (Lepak and Shaw 2008). Studies exploring different ways of integrating HR practices into systems (Becker and Gerhart 1996; Ramsey et al. 2000; Lepak et al. 2006) failed to find one solution that would fit the needs of all organizations. The investigated systems were oriented to increasing employees' involvement in the organization (e.g., Whitener 2001), to reconcile the employees' and organization's interests (Guthrie 2001, etc.), or to strengthen employees' skills and motivation (e.g., Huselid 1995; Lepak et al. 2007, 2007) to ultimately improve organizational performance. The differences between the systems were trivial, and no objective arguments could be presented in favor of any of them (Wright and Boswell 2002). The reason why the theoretical model proposed in this paper is focused on high-performance HRM systems is that they operate a wide range of HRM practices and their purpose is to improve EP by managing relations in the organization (e.g., Lepak et al. 2007, 2007).

The HR practices systems are multi-layer solutions (Becker and Gerhart 1996; Boxall and Macky 2009; Jiang et al. 2012) encompassing HRM policies and HRM practices consisting of content, process, and climate (Schuler 1992; Monks and McMackin 2001; Kepes and Delery 2007). According to research, such systems are directly related to employees' and organizations' performance (Nishii et al. 2008; Boxall et al. 2011; Katou 2015). Bowen and Ostroff (2004) argue that the relationship creates the parties' common understanding of their expectations and commitments, as well as shapes employees' attitudes and behaviors in line with the requirements of the PC.

This paper is prepared to narrow the gap in the literature on the use of HRM policies and PC as a means for establishing relationships between employees and their organization, but without delving into how the relationships may affect organizational performance. The author's earlier findings on the interaction between PC and HR systems emphasizing flexibility or involvement (Rogozińska-Pawelczyk 2016) resulted in the expectation that the HR practices system's influence on EP would be mediated by the fulfilment of the PC.

An important feature of the HR practices systems is that they contribute to better performance by supporting employers and employees in the fulfilment of their PC (Suazo et al. 2009; Chiu and Peng 2008; Robinson and Rousseau 1994). The study can therefore be expected to provide evidence corroborating the observation that the PC acts as a mediator between a HR system and EP, which effectively means that better HR practices lead to better-quality PC and thus improve EP. The majority of empirical studies analyzing PC in terms of their mediating effect between HR practices systems and EP have reported that only the improvement of workforce skills, attitudes, and behaviors could enhance organizational performance (Raeder et al. 2012). There are also a number of studies the authors of which have studied the influence of HR practices systems on organizational performance (Boselie et al. 2005; Jiang et al. 2012; Nishii et al. 2008). In this research, the joint analysis of

organizational and individual factors provided deeper insight into the mechanisms determining the relationship between HR practices systems and EP.

In order to better grasp the nature of the relationship, researchers reached for so-called mediating variables, i.e., factors linking HR practices and organizational performance (Ramsey et al. 2000; Boselie et al. 2005; Paul and Anantharaman 2003). Boselie et al. (2005) proposed employees' satisfaction, motivation, and trust and the social climate between employees and managers in the organization. Ramsey et al. (2000) put forward employees' involvement as a variable interfacing between a high-performance work system (HPWS) and organizational performance, but they failed to confirm its mediating effect.

The existing studies report a relationship between individual HR practices and systems and the PC (Uen et al. 2009), as well as a positive correlation between the latter and employees' attitudes and behaviors (e.g., Turnley et al. 2003; Rogozińska-Pawelczyk 2016) that have effect on how an organization performs (Henderson et al. 2008).

Despite the increased interest in the psychological contract in recent years, it would be difficult to conclude that this issue has been sufficiently researched and described. More research is needed to make PC a rational framework for understanding the relationship between employees and employers (Guest 2011). There is also a need for more research exploring both employers' and PC employees' perspectives (Baker 2009) as well as research into the causal order between the relationships involved (Aryee et al. 2002; Cropanzano and Mitchell 2005; Coyle-Shapiro and Shore 2007).

Accordingly, in this research, it was assumed that the PC was a mediating variable that helped the HR practices systems to modify EP. The assumption was based on the knowledge that the HR practices systems can influence the PC being an element of the employer's obligations toward an employee and an incentive for the latter (Suazo et al. 2009; Uen et al. 2009). In other words, the HR practices systems facilitate the fulfilment of the PC which encourages employees to adopt the desired workplace attitudes (Turnley et al. 2003; Sturges et al. 2005; Henderson et al. 2008) and improves their performance (Ramsey et al. 2000; Paul and Anantharaman 2003). To test this and other assumptions of the mediation model, the author focuses her research on the relationships between the PC and EP (meant as behaviors and performance) and on the relationships between the HR practices systems and PC.

Moreover, considering that there is poverty of research on PC outside European Western economies (Westwood et al. 2001, p. 648), the author proposes to extend previous PC research into a previously untested cultural, economic context, such as the Polish modern BSS. Economic, political, and demographic changes in Poland have serious social consequences for human resource management (HRM) in organizations. The financial crisis of 2007–2008 has resulted in an ongoing need to reduce labor cost cuts, which in most cases has led to redundancies and the shelving of the available human capital.

New trends and the evolution of the relations between employers and employees have attracted the interest of Polish HRM practitioners and researchers (Rogozińska-Pawelczyk 2016). Polish HRM changes at an increasing pace, following changes in

the character of work and in the internal and external environments of organizations. Polish studies conducted in the 2015s have demonstrated that factors comprising the environments influence organizations, their strategies and structures, as well as the dynamics of work (Zadura-Lichota 2015; Melnarowicz 2017). The significance of employees' performance is connected most with organizations in which there are a high variety of working demands and changeable conditions of work performance; a high demand for diversity, creativity, and innovativeness at work; as well as a large variety of ways in which work can be carried out and difficulties in their nonmaterial estimation. The indicated conditions occur mainly in a specific group of Polish companies belonging to the BSS. Therefore, it would be interesting to extend the debate on the role of HRM and PC in improving EP to companies in the modern BSS.

2 The Model's Theoretical Background and Research Hypotheses

This paper considers EP using independent and intermediate variables characterizing individuals and organizations. The empirical part of the research involved quantitative analysis of relationships between HR practices systems and EP. To explain the relationships, a model is proposed (see Fig. 1) which assumes that a HR practices system (the predictor) contributes to EP both directly and indirectly, in the latter case being mediated by the fulfilment of the PC (the mediator).

The research model includes an explanation of the cause-and-effect relationships, together with a specification of the conditions in which the tested influence of prognostic factors (HRM practices) on the tested variable (EP) will occur. The proposed model assumes that the performance stage of a PC (mediating variable) intermediates in the relationship between HRM practices and EP. The model is based on the assumption that a wide range of factors located in the indicated areas affect employees' performance. The following theoretical concepts are used in the model, EP, HR practices systems, and a PC, which are presented more widely below. The perspective of knowledge employees, who are professionally connected with the companies of BSS sector, undertaking activities connected with the necessity to use specialized, complicated knowledge is stressed in this article. HR practices systems constitute a recommended approach in organizations offering knowledge-intensive services in the HRM area.

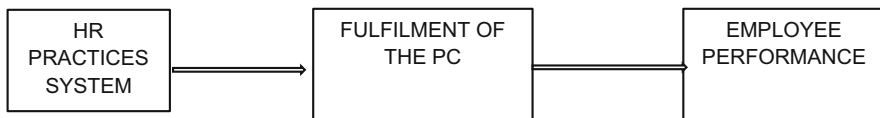


Fig. 1 Relationships between the model's components. Source: developed by the author

Conceptualization of a theoretical model is based on a concept of EP. Taking the assessment of EP into consideration, it is important to state that the company efficiency is also connected with the level of HR (Jiang et al. 2012). Therefore, the theories of the area of behavior and approach based on results are the basis to explain the selection of particular variables constituting the measurable EP in the project (Aguinis et al. 2016). They refer to the measures of individual behavior and their aggregates as well as the indicators of obtained results gathered on the basis of differentiated sample of persons obtaining efficiency at work. This way of including the variables constituting measurable EP is based on the use of many measures designed in such a way that they examine specific behavior of a respondent in a direct way. Moreover, a lot of operational measures (e.g., profit, market value, ROE indicator, revenue, and sale per 1 employee or turnover ratio) reflect only the work results and not the behavior itself. The author's intention was that the employee's behavior and employee's performance are closely connected. In other words, the EP should reflect individual behavior. According to the results of research of Delaney and Huselid (1996) and Klassen et al. (1998), the following indicators should be applied to assess the individual and organizational effects: productivity, efficiency, effectiveness, and efficacy. As there are the lack of precision and no semantic limits in the use of these terms, only the terms of effectiveness and efficiency have become the elements of constructive assessment of organizational performance in the proposed model. The term effectiveness means the rate in which the organization obtains the indicated objectives; efficiency means the rate in which the organization minimizes the expenditures and maximizes the obtained profits. The application of described indicators refers mainly to the assessment of production effects, e.g., in manufacturing companies, and the nature of services (especially the intangible ones) in this approach may cause some problems. Poczowski (2008) draws attention to the subject aspect and approach related to the features, behavior, and results connected with the performed work. Therefore, the following three measures of the assessment of EP are development which means the rate in which an organization develops to meet future chances and challenges; innovation which means the rate in which the organization is able to create new ideas, products, and process in order to improve competitiveness; and quality which means the rate in which the organization is able to create the biggest number of ideas/products/services of the highest quality. Two arguments are in favor of the use of these measures: (1) emphasis of the aspect of result of the action and (2) emphasis of the significance of values and benefits which these results bring (Wojtczuk-Turek 2016).

The second pillar of the proposed model concept comprises the concept of a PC. PC, expressed by the set of mutual views about the obligations of each party of an employment relationship, their expectations regarding the rate of performance significant for their needs and interests, as well as faith that they will be included and satisfied appropriately, comprise the second pillar of the conceptualization of the proposed model. The satisfaction of promises (transactional or relational) made by an employer affects the fulfilment of similar promises declared by an employee, resulting in employees adopting relevant attitudes (satisfaction, engagement, motivation). The theoretical frames specifying the scope of a PC constitute a social

exchange occurring between an employee and an employer and the mutual norm accompanying it (Rousseau 1995).

Despite the fact that PC have a very subjective nature (Rousseau 2010), there are some common features that classify PC into two main types: transactional and relational (Rogozińska-Pawelczyk 2011). A transactional contract varies regarding economic benefits and may take specific time frames. The contract is usually externally oriented, but it also offers the possibilities of the development of employee's competencies and income growth and the prestige of the workplace. The relational benefit of a PC between an employer and an employee consists in the exchange of employment security and the possibility of a long-term career in a company for loyalty and obedience toward the organizational hierarchy (Rogozińska-Pawelczyk 2015). Moreover, other research suggests that the selection of HRM policy and practices may affect the performance of the two types of a PC (Pathak et al. 2005). This thesis is also confirmed by the results of research carried out by the author, proving that the type of contract (relational, transactional) which is dominant in an organization may be identified by analyzing how the HRM policy functions based on engagement, flexibility, and particular HRM practices. It is proved by the connection between the types of PC presented in the research and the systems of assessments, career paths, and the variable aspect of remuneration (Rogozińska-Pawelczyk 2012, 2016). Taking the above arguments into consideration, the analysis of fulfilling the relational and transactional PC which, in the case of mutual fulfilment, will be connected with EP should be included when creating the model.

HR practices system is a final part of the analysis. The concept of HR practices systems evolved along the idea of employees' performance management and created de facto an independent stream of research. The main assumption of HR practices systems is that certain bundles of practices, being specific HRM activities, can lead to greater organizational outcomes (Zhang and Morris 2014). Additionally, the different clusters of HR practices systems are intended to increase beneficial individual outcomes (e.g., knowledge, skills, and abilities) and, subsequently, firm's performance (Jiang et al. 2012). A completely homogenous HR practices system has not been developed. Researchers propose various bundles of HR practices systems which differ in range, consistency, or comprehensiveness (Evans and Davis 2005; Topcic et al. 2016).

The HR practices system is a cluster of practices and policies that organizations use to make their employee selection, retention, and development processes more efficient and to improve the use of human capital in line with their strategic goals (Boselie et al. 2005). Most HR practices are aimed to attract and recruit the right job applicants, to set the goals for human resource development, to implement a remuneration policy facilitating the retention and motivation of employees, and to foster positive relations among the workforce (Boxall et al. 2011). These key practices underlie the creation of HRM strategies (Boselie et al. 2005; Lepak et al. 2007, 2007) for planning, recruiting, and selecting the best-quality human capital for the organization. Employee development is directly linked to the organization's ability to function, the assessment of their performance and fair remuneration help

focus their energy on the execution of their tasks, and relations among employees influence the overall climate in the organization and thereby its performance.

The proposed research model has an innovative character because it refers to issues connected with employee's performance of companies in the modern BSS who do work that requires special and innovative knowledge. Due to the scope of the research and the analysis of the architecture of HR practices systems, the specification of EP mechanisms will be extended by analyzing areas which have not been looked at so far. The inclusion of a PC as a mediator will contribute to a deeper understanding of the employee's performance determinants in knowledge-intensive companies. The simultaneous analysis of individual and organizational factors and the interdisciplinary of the approach to the research issue constitute the main reasons for carrying out the research, which will enable an understanding of the mechanisms underlying employee's performance at the workplace more deeply. The analysis of employee's performance being taken regarding their connections with the HR practices system may indicate not only their mutual relationship but also predictive power of the influences in the human management area.

3 Research Method

3.1 Procedure and Measures

The quantitative research was aimed to establish the relationship between HRM practices and EP in regard to the mediating role of the PC. The following research hypotheses were tested:

H1. There is a relationship between HRM practices system and EP.

H2. PC fulfilment mediate relationship between HRM practices system and EP.

In order to test both hypotheses, to find relationships between the selected variables, and to evaluate the role of the mediator, a correlation analysis and multiple regression analysis were performed using the QUADAS tool. Correlations were assumed significant at $p < 0.05$ and $p < 0.01$. To quantify the role of the mediator, regression models and 5000 bootstrapping samples were used. For the purposes of the analysis, the structural equation modelling (SEM) method (part of the STATA/SE package) was additionally applied (Preacher and Hayes 2004). It was used because of the need to analyze multivariate models containing a large number of predictors (HRM practices system with its employee resourcing, development, rewards, and relations) and of mediators (the fulfilment of the PC by employees and employers). Another important argument for using the SEM is that it outperforms the regression models as a tool for analyzing variables.

3.2 *Sample*

The survey was carried out in the first quarter of 2019. The quantitative research was conducted in randomly chosen knowledge-intensive companies on a testing sample: $n = 150$ representatives from the BSS (including $n = 100$ employers from the BSS and $n = 50$ knowledge employees). Respondents were recruited to the survey through the direct, personal contacts of the author of this article with BSS organizations' employees participating in the training on "Creativity in Business." The survey was anonymous and voluntary.

The research has a national character, and its subjects were managers and employees employed in eight BSS organizations. In total 150 persons were tested, including 36 women and 114 men. The age average of respondents amounted to 35 years, $SD = 10.16$. Fifty knowledge employees of middle level, including 20 women and 30 men, and 100 BSS managers, including 16 women and 84 men, took part in the research. More than half respondents (78) had substantial professional experience judging by the number of years they had worked. Most of them had worked 6–10 years (68), 11–15 years (49), and 21–30 years (26). Other respondents had worked less than 5 years or longer than 30 years (7).

3.3 *Measures*

The survey was carried out using the PAPI technique (direct individual questionnaire interview technique). The measurements of the selected variables were made using the following diagnostic tools:

HRM practices—this variable was measured against items adapted from the tools measuring HR practices (Guthrie 2001; Tsai 2006; Fu et al. 2015). Based on the exploratory factor analysis, the following practices were selected: resourcing, training, rewards, and relations. Each practice was described by three items such as "My career path and personal development plan in the organization are clearly defined" (training) and "The motivating system addresses my personal expectations" (rewards). Respondents rated the statements on a 5-point Likert scale, where 1 represented "I strongly disagree" and 5 "I strongly agree." Cronbach's alpha coefficient indicating the reliability of this research tool was 0.78.

Fulfilment of the PC—this variable was measured using two subscales, each having five items based on Mcneil (2000) and Rousseau (1989). One subscale assessed the transactional aspects and the other the relational aspects of employers' and employees' fulfilment of their PC obligations. Whether an aspect was transactional or relational was determined using the categorization system used by Thompson and Hart (Thompson and Hart 2006). The transactional aspect comprised economic variables such as pay, its level and structure, performance-based profit sharing, and variables that could generate incomes in the future, e.g., opportunities for personal development and promotion. The relational aspect consisted of "social"

variables, including a good workplace atmosphere, values associated with organization's CSR, and the quality of relations between the employer and employees (e.g., employment certainty and security, fair treatment from the employer).

To measure the fulfilment of the employer's and employees' transactional and relational obligations, two subscales were used, each containing five items such as "Does your employer deliver on their promise to provide promotion opportunities in the organization?" (the employer has offered a relational PC) or "Do employees share their expertise with other people in the organization as they promised?" (employees have accepted a transactional PC). All items were assessed by respondents on a 5-point Likert scale, where 1 was "not at all" and 5 "very much." Cronbach's alpha coefficient for this research tool was 0.77.

EP—this variable was measured on five subscales (effectiveness, efficiency, development, innovativeness, and quality), each containing three items adapted from the tools that Delaney and Huselid (1996) and Klassen et al. (1998) developed to measure EP (behaviors and work results). Some of the items were as follows: "I do my job carefully, competently and efficiently" or "I think I take enough training to do my job competently." Cronbach's alpha coefficient for this tool was 0.89. Respondents gave their answers on a 5-point Likert scale, where 1 denoted "I strongly disagree" and 5 "I strongly agree."

4 Analysis of Research Results

The first step of statistical analysis involved the calculation of correlations between the variables (Table 1).

As the data in Table 1 show, EP is moderately and significantly correlated with HR practices system ($r = 0.76$; $p < 0.01$) and its dimensions, i.e., resourcing ($r = 0.54$; $p < 0.01$), training ($r = 0.61$; $p < 0.01$), rewarding ($r = 0.40$; $p < 0.01$), and relations ($r = 0.54$; $p < 0.01$) (Table 1). Moreover, EP as a whole and its constituent variables (effectiveness, efficiency, development, innovativeness, and quality) are positively and moderately correlated with EP. We observe strong, positive, and significant correlations between HR practices, organizational performance, and employer and employee PC fulfilment, supporting the hypotheses of the study. This confirms the findings of earlier research according to which organizational HR practices are correlated with the manner of their communication and their perceived importance by employees (Bowen and Ostroff 2004; Nishii et al. 2008; Katou 2015).

How the independent variable (a HR practices system) correlated with the mediator (the fulfilment of the PC) was important for evaluating the strength of the research hypotheses. Analysis showed a positive correlation between the HR practices system and the fulfilment of the contract by employees ($r = 0.91$, $p < 0.01$) and employers ($r = 0.79$, $p < 0.01$) and a positive and moderately strong correlation between the system's particular dimensions and the mediator. EP also positively

Table 1 Correlation coefficients calculated for the selected variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1 HR practices	1												
2 HR resourcing	0.54**	1											
3 HR training	0.61**	0.11**	1										
4 HR rewarding	0.40**	0.08	0.69**	1									
5 HR relations	0.54**	0.19**	0.01	0.22**	1								
6 Employer PC fulfilment	0.79**	0.27**	0.64**	0.52**	0.64**	1							
7 Employee PC fulfilment	0.91**	0.81**	0.73**	0.45**	0.63**	0.58**	1						
8 EP	0.76**	0.64**	0.61**	0.32**	0.27**	0.68**	0.72**	1					
9 Employee effectiveness	0.12*	0.36**	0.49**	0.12**	0.37*	0.33**	0.41**	0.43**	1				
10 Employee efficiency	0.21*	0.10*	0.09	0.12**	0.57**	0.29**	0.36**	0.26**	0.07	1			
11 Employee development	0.24*	0.33**	0.50**	0.57**	0.37**	0.26**	0.44**	0.03	0.09	0.13*	1		
12 Employee innovativeness	0.38**	0.81**	0.64**	0.35*	0.81**	0.87*	0.81**	0.71**	0.74**	0.34**	0.29**	1	
13 Employee quality	0.10*	0.58**	0.41**	0.36**	0.27**	0.66**	0.25**	0.36**	0.15**	0.15**	0.43**	0.37**	1

* $p < 0.05$, ** $p < 0.01$

Source: developed by the author

Table 2 The results of regression analysis

Variable	Model 1	Model 2
Independent variable: HR practices system	0.786 $p < 0.001$	0.566 $p < 0.001$
Control variables:		
Gender	-0.421 $p < 0.01$	-0.238 $p < 0.05$
Age	0.954 $p < 0.01$	0.742 $p < 0.01$
Seniority	0.383 $p < 0.01$	0.299 $p < 0.01$
Position	-0.320 $p < 0.05$	-0.187 $p < 0.05$
Mediating variable: Fulfilment of PC	-	0.7092 $p < 0.001$
R ²	0.26	0.24
ΔR^2	0.21	0.24
F	22.087 $p < 0.001$	32.692 $p < 0.001$

Source: developed by the author

correlated with the mediator ($r = 0.68$, $p < 0.01$ for employers meeting their obligations and $r = 0.72$, $p < 0.01$ for employees).

To study the nature of the correlation between the HR practices system and EP and to assess the mediating effect of the fulfilled PC, a stepwise regression analysis and a bootstrapping procedure were used. Two regression models were constructed that allowed, respectively, for a direct and indirect (stronger) influence of the HR practices system on EP. The results of this analysis are shown in Table 2.

Both models proved statistically significant and well fitted to the data ($F = 32.692$, $p < 0.001$ and $F = 22.087$, $p < 0.001$, respectively). They showed that, as expected, the HR practices system (the predictor) influenced EP both directly and indirectly. The direct effect in the first model ($\beta = 0.786$; $p < 0.01$) meant that EP would improve with the HR practices system's elements becoming more visible. In the second model, the introduction of the mediator increased the predictor's value with respect to the explained variable (performance). The mediator significantly correlated with both the dependent variable (EP) and the predictor that stimulated EP indirectly ($\beta = 0.566$; $p < 0.001$), i.e., through the mediator.

The author states that there is no solid theoretical justification for considering individual controls as a separate factor and continues to use this factor for regression purposes only to isolate the effect of independent variables on PE (Boselie et al. 2005). Additionally, it must note here that although the author tried all possibilities connecting individual and organizational controls with all the other constructs, the only significant results obtained are those reported in Fig. 2. Individual control variables (age, gender, the number of years in service, position) significantly determined the effectiveness of the HR practices system and EP.

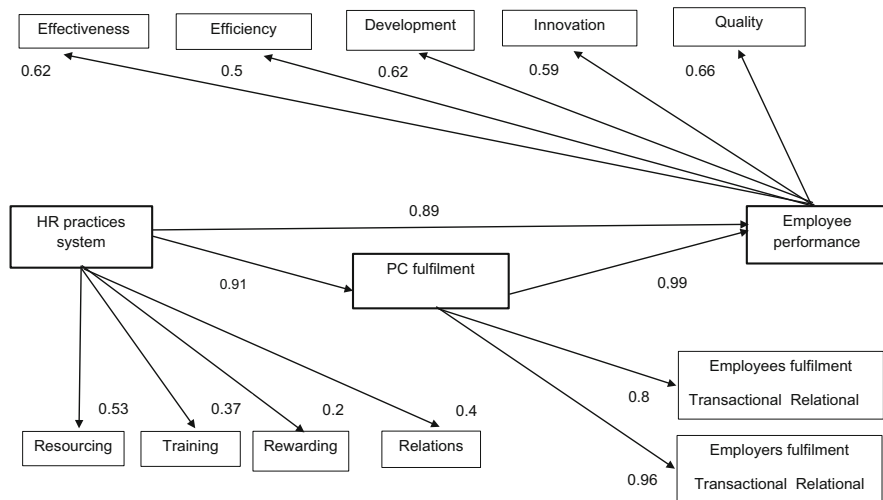


Fig. 2 Estimation result of the relationships between a HR practices system and EP and the mediating effect of the fulfilment of the PC by employees and employers. Source: created by the author

The effect of the HR practices system on EP negatively depended on their gender and position, which means that the influence of women and non-managerial position is lower. This is confirmed by the research of Karoliny and Sipos (2019), who confirm the existence of gender differences in holding specific job positions. The empirical findings show that age and the number of years in service, persons older than 46 years of age and employees who were employed the longest, reported a stronger association between EP and HR practices system in place. These results confirm the positive influences of age and seniority to EP (Guest 2011; Ramsey et al. 2000; Boselie and van der Wiele 2002).

Summing up, the HR practices system has a direct as well as indirect influence on EP. The stronger influence observed in the second case means that the HR practices system improves EP the most when both the employer and employees perform the PC. Accordingly, hypotheses H1 and H2 have been empirically confirmed.

They have also been confirmed by the results of the structural equation modelling (SEM) procedure where the HR practices system functioned as the predictor, the fulfilment of the PC as the mediator, and EP as the dependent variable. The relationships between these variables are shown in Fig. 2.

The model is well fitted to the data ($\chi^2 = 2.971$, $df = 243$, $p = 0.000$, $RMSEA = 0.086$, $NFI = 0.992$, $CFI = 0.901$, $GFI = 0.846$, $SRMR = 0.014$) and significantly explains how its components are related to each other. As can be seen, EP is directly influenced by the HRM practices system through the fulfilment of the PC.

5 Discussion and Conclusion

The above analysis of the quantitative research results has confirmed the complexity of relationships between the HR practices systems and EP and consequently the need to study them using an interactive approach. These findings also extend the literature referring to the HR practices systems are related to EP in a non-American or British context such as that of Polish modern BSS. Showing that the HR practices systems are related to EP, it is also consistent with the findings of other researchers, such as Bowen and Ostroff (2004) and Katou (2015), and acknowledges the view that HR practices systems are important for organizations because they make employees more productive by inducing a similar perception of HRM practices across the workforce.

This study is partially in line with Guest and Conway's (2004) PC model where HR practices have a major influence on the state of the PC, indicating that a positive PC will lead to improved organizational performance. These findings confirm and extend the argument of Rousseau (1995) about the central importance of reciprocity in relation to the management of exchange relations (Coyle-Shapiro and Shore 2007). This is because the main feature of the conceptual research model is that the relationship between HR practices system and organizational performance is mediated by PC fulfilment. This study can provide some light to address the mechanisms that exist between HR practices systems and organizational performance (Kepes and Delery 2007).

The HR practices systems have been shown to have a direct as well as indirect influence on EP, the latter being largely dependent on the fulfilment of the PC by employees and employers. In both cases, the outcomes are significantly determined by individuals' characteristics.

Fulfilment of the PC, especially the relational and transactional one, also considerably influences EP. Taking into account that there are no significant differences between these values, we argue that the flexibility of fulfilment employee transactional promises to employers' promises is equal to the flexibility of fulfilment employee relational promises in relation to employers' promises in the context of BSS in Poland (Wojtczuk-Turek 2016). Therefore, it can be said that changes in the fulfilment of employers' promises are equally related to changes in the fulfilment of transactional and relational promises of employees. Despite these findings, the author of this paper agrees that transactional aspects of the PC must be fulfilled before relational aspects can be dealt with (Millward et al. 1999) because transactional aspects drive relational aspects due to their cause-and-effect association (Pate et al. 2003).

The analysis of EP (behaviors and performance) and of its determinants can help in formulating recommendations for personnel management. Organizations' BSS should consider using this relationship as a mediator between HR practices systems and EP. According to the research results, shaping EP modifies the functioning of individual employees as well as of the organization. Because this study has shown that the HR practices resourcing, training, rewarding, and relations (comprising an

integrated HRM practices system) have effect on EP, managers should take more care to ensure that the clusters' HR practices are more visible (explicit and noticeable) to employees, more comprehensible (easily understandable), and more meaningful (helping employees achieve goals). Efforts are also necessary to raise the employees' awareness of a HR practices system being in place (as HR practices can significantly improve their performance and quality of work) and to ensure that it is understood or interpreted in the same or similar way (this requires that the HRM department sends its messages in a coordinated manner, consistent across contexts and times). HR managers focused on these aspects of HR practices systems will be able to come with better fulfilment PC capable of stimulating EP.

The study has provided insight into personnel management practices in organizations BSS that are aware of the role of the PC as a means for improving EP and where the fulfilment of the PC is a mediator between EP and HR practices systems. One has to be aware, however, that preparing a positive PC is a difficult task (Rogozińska-Pawelczyk 2016). It is therefore important that the personnel policy in an organization involves open communication and ongoing dialogue between managers and employees.

The pilot study seems to provide a solid starting point for future research with a larger, representative sample BSS, which will investigate the fulfilment of PC as a predictor of EP and as a mediator between HR practices systems and EP. Future research should also focus on other sectors and contexts of different countries in order to be able to verify and extend the present results.

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Empirical Evidence of Managerial Attribution in Managing Poor-Performing Employees



Suhaila Mohamed and Jo Ann Ho

Abstract The Attribution Model of Leadership explains internal and external attributions. However, actual data to explain the construct of internal and external attribution is scarce. This is because past researches use dependent measures already framed in terms of the internal/external categories. To overcome this gap, this study explores the processes that construct internal and external attributions as experienced by human resource managers in managing poor-performing subordinates. Data of this study is based on an in-depth interview of six selected informants. The research finding explains the informants' own words on the internal/external categories, based on their direct observation and knowledge structures for what specific causes covary with what specific effects. The contribution of this study is the empirical evidence, based on actual data that explains internal and external attribution. This is because the Attribution Model of Leadership is based on dependent measures of covariance analysis, while this research finding explains the processes based on specific explanation of internal and external attribution.

Keywords Attribution · Attribution Model of Leadership · Human resource managers · Qualitative · Poor performers

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1 Introduction

Attribution is a process of determining the causes of behavior (Ilgen et al. 1981). In general, people have an innate desire to understand the causes of important outcomes in their lives and that their attributions influence their responses to these outcomes (Martinko et al. 2007; Martinko 2013; Hewett et al. 2017). In organizational research, the managerial attribution process can explain the process of labelling the causes of poor performance that supervisors attach to their poor-performing subordinates (Moser 1992; Martinko and Thomson 1998). A poor-performing employee is defined as an employee whose work behaviors give challenges to the immediate supervisor in managing him/her to achieve a satisfactory performance (Yariv and Coleman 2005). Therefore, this research defines managerial attribution as to how managers infer the causes of behaviors (Martinko et al. 2007, 2011), in the context of managing poor-performing employees.

The researchers began the investigation with a suggestion that there is a need to understand the processes that construct internal and external attribution. This is because past research that utilized the Attribution Model of Leadership extensively examine the two types of attributions, which are internal and external attributions (e.g., Green and Mitchell 1979; Ashkanasy and Gallois 1994; Parham 2003; Eberly et al. 2011). The core process in the Attribution Model of Leadership is based on covariance analysis in making internal or external attribution for subordinates' behavior (Malle 2011). According to Morrison (2009), covariation reasoning is helpful when events occur repeatedly and across different contexts. However, according to Malle (2011), actual data to explain "what processes do people rely on to construct specific explanation of internal and external attribution" is scarce. This is because past research (For example, Ashkanasy and Gallois 1994; Zhang et al. 2008) used dependent measures already framed in terms of the internal/external categories (the respondents were never asked to provide an explanation in their own words). More importantly, the participants were always presented with relevant covariation information, and, unsurprisingly, they made use of it. Thus, to identify an actual cause, one needs to rely on direct observation and on knowledge structures for what specific causes covary with what specific effects (Malle 2011).

Thus, the purpose of this research is to use qualitative analysis to elicit first-hand accounts from human resource (HR) managers of their subjective experiences (as opposed to a positivist perspective) in making causal attribution to performance issues. HR managers were chosen for this research due to their role in planning and executing HR functions that promote fairness at workplace (Forray 2006). The objective of this research was to discover how HR managers assign causal attribution to performance issues. The research was carried out through an investigation of a specific research question: how do HR managers assign causal attribution to performance issues? Causal attribution is defined as an expression of the way a person thinks about the relationship between a cause and an outcome (Saldana 2016). As illustrated in Fig. 1, the cause is referring to the frequency of informational cues (i.e.,

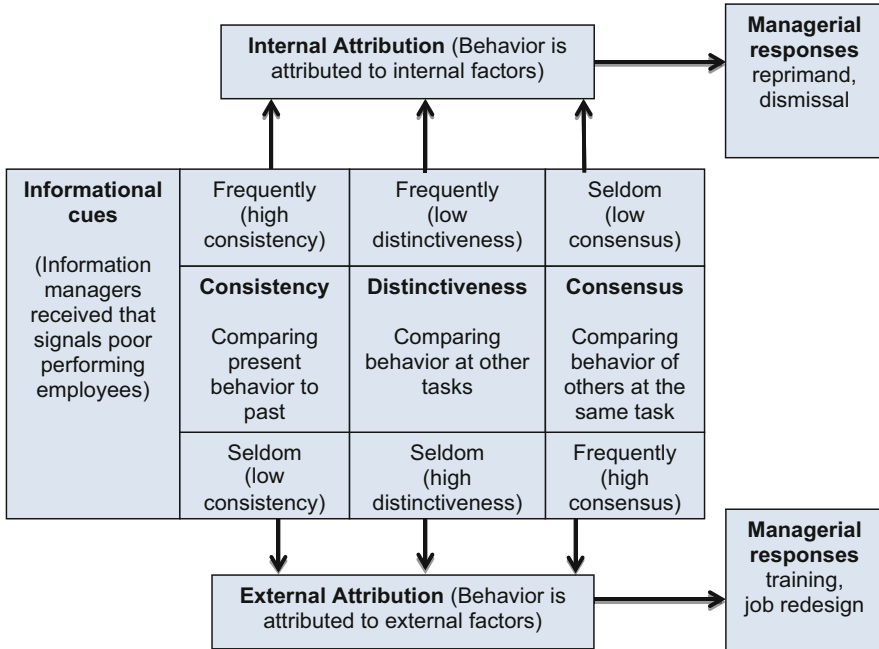


Fig. 1 Attribution Model of Leadership. Sources: Based on Green and Mitchell (1979) and Martinko et al. (2007)

frequently and seldom) that were observed by the managers, while the outcome is referring to the types of attribution (i.e., internal and external attribution). The subsequent sections of this paper will be on the Attribution Model of Leadership, the methodology utilized in this research, and the results of the research. Subsequently, there will be a section on discussion, implications, limitations, and conclusion of the research.

2 The Attribution Model of Leadership

Attribution Theory was introduced by Heider in 1958 (Martinko 2013) and subsequently evolved into two main topics of attributions following the works of Kelley (1967 as cited in Kelley and Michela 1980) and Weiner (1985, 2018). Kelley’s dimensions of attributions addressed the issue of how people turned observed variations in behaviors into attributions (Kelley and Michela 1980), while Weiner’s (1985, 2018) dimensions focused on the affective and behavioral outcomes of those attributions. This indicates that Kelley’s dimensions are related to the attribution of others’ behavior, while Weiner’s dimensions are related to self-attribution. Based on Kelley’s (1967 as cited in Kelley and Michela 1980) dimensions of attribution,

Green and Mitchell (1979) introduced a model under the Leader-Member Exchange (LMX) studies called “Basic Attribution Model.” The model was introduced in an effort to better explain the role that the observation of others’ behaviors (i.e., managers observing employees) plays in performance evaluation (Eberly and Mitchell 2013; Harvey et al. 2014). Later, Martinko et al. (2007) labelled this model as the Attribution Model of Leadership.

In the model, as illustrated in Fig. 1, Green and Mitchell (1979) described how employees’ behaviors led to informational cues that influenced the managers’ attributions, which, in return, influenced the managers’ actions towards the employees. By observing the employees’ behavior, managers received informational cues that indicating poor performance among the employees (Green and Mitchell 1979). The cues are observed in terms of its “consistency” (i.e., how often did the employee act this way in the past), “distinctiveness” (i.e., how often does the employee act this way in other settings), and “consensus” (i.e., how often do other employees act this way in similar situations). Subsequently, the cues would influence the manager’s attributions depending on the high or low level of consistency, distinctiveness, and consensus in the employees’ behavior (Green and Mitchell 1979). This covariation analysis determines whether the manager attributes the performance level to the employee’s internal attributes (dispositional) or to the external attributes (situational) of the employee, thus arriving at either an internal or external attribution (Eberly and Mitchell 2013).

For example, if an employee performs poorly on a certain task, has never performed well on the task (high consistency), and also does not perform well on other tasks (low distinctiveness), but other employees generally perform well on the same task (low consensus), then the leader is likely to conclude it as an internal attribution and blame the employee’s poor performance on aspects such as a lack of ability or skills (Eberly and Mitchell 2013). The high consistency, low distinctiveness, and low consensus in the employee’s behaviors will lead the manager to conclude that their performance is internally attributed, which means that poor performance is attributed to internal factors (i.e., characteristics of the person), such as the attitude, ability, or motivation of the poor-performing employee (McShane and Glinow 2015).

Subsequently, managers’ attributions will influence their behaviors towards managing the employees (Green and Mitchell 1979; Martinko et al. 2007). Internal attribution will lead to the poor-performing employees being reprimanded and dismissed (Martinko et al. 2007; Zhang et al. 2008). On the other hand, low consistency, high distinctiveness, and high consensus will lead managers to attribute employees’ performance to external attributions (i.e., the environment), which means that such behavior is attributed to external factors, such as resources, co-worker support, or the luck of the poor-performing employees (McShane and Glinow 2015). Subsequently, the managers’ attributions will influence their behaviors towards the poor-performing employees (Green and Mitchell 1979). Furthermore, external attribution will lead to training and job redesign (Martinko et al. 2007). Because this covariation analysis is complex, managers often take cognitive shortcuts by utilizing categories, such as ability, effort, task difficulty, and luck, to

quickly arrive at causal explanations for employee performance (Eberly and Mitchell 2013).

Empirical research (e.g., Ashkanasy and Gallois 1994) supported the covariation analysis that determines whether the manager attributes the performance level to the employee's internal attributes (dispositional) or to the external attributes (situational) of the employee, thus arriving at either an internal or external attribution. The research conducted by Ashkanasy (1989) asked the respondents to respond to descriptions of hypothetical subordinates' performances that varied in consistency, distinctiveness, consensus, and outcome. The research results of Ashkanasy (1989) supported predictions based on Kelly's (1967 as cited in Kelley and Michela 1980) principle of covariation. One laboratory study conducted by Dobbins and Russell (1986) found that managers make attributions for subordinate poor performance based upon objective information in the work environment (e.g., consistency, consensus, and distinctiveness) and then use this attribution concomitantly with their liking for the subordinate to select corrective actions in order to handle the poor performer.

An experimental study was conducted by Moss and Martinko (1998) to determine the extent to which managers' attributions of employees' performance (i.e., on employees' effort and ability) and outcome dependence (high and low) affected the frequency, latency, and type of feedback provided to poor performers. Moss and Martinko (1998) found that the feedback offered to poor performers by managers is significantly affected by both the managers' attribution and outcome dependence. Another study conducted by Heerwagen et al. (1985) found that it was possible to prompt respondents to make more external attribution about poor performance. Heerwagen et al. (1985) study also found that whichever attributions the respondents make (either internal or external), the solutions they select to deal with the poor performance are congruent with their attributions provided that the solutions do not have explicit implementation costs associated with them (Heerwagen et al. 1985). However, when implementation costs are made explicit, costs influence solution selection and reduce the congruence between the attributions and the selected solutions (Heerwagen et al. 1985).

Past research on the Attribution Model of Leadership also examined the process of attribution in a cross-cultural setting (e.g., Zhang et al. 2008; Lakshman and Estay 2016). The research conducted by Zhang et al. (2008), which examined the attribution process in an Eastern setting, found that the basic attribution process in the Eastern context (collective society) is similar to what happened in the Western context (individualistic society). Another research conducted by Lakshman and Estay (2016) empirically tested manager-subordinate dyads in France and India. They found that attributional complexity (i.e., high levels of differentiation, articulation, abstraction, and integration in individuals' causal reasoning) of managers is linked to the accuracy of attributions, as perceived by the subordinates, and that the performance enhancement strategies of managers are linked to isomorphic (accurate) attributions and to key outcome variables (subordinate satisfaction and leadership perceptions), with power distance being a critical moderator.

From the literature, managers' decision based on covariance analysis to make an internal or external attribution for subordinates' behavior is the core process in the Attribution Model of Leadership (Malle 2011). Even though covariation reasoning is helpful when events occur repeatedly (Morrison 2009), however, Malle (2011) argued that actual data to explain "what processes do people rely on to construct specific explanation of internal and external attribution" is scarce. This is because past research (e.g., Ashkanasy 1989; Ashkanasy and Gallois 1994; Zhang et al. 2008) used dependent measures already framed in terms of the internal/external categories (the respondents were never asked to provide an explanation in their own words). Without the identification of the actual cause, the researcher will not be able to explain the internal and external attribution. For example, one study conducted by Parham (2003) found that attribution is not related to the managers' behavior in dealing with poor-performing employees. At the same time, Parham (2003) was also unable to explain why the managers in his study behaved that way. This means, even though the Attribution Model of Leadership has been widely applied in previous research conducted in the field of performance evaluation (e.g., Benkhoff 1998; Judge and Ferris 1993; Xu and Tuttle 2005), more research is needed to address the lack of data to explain "what processes do people rely on to construct specific explanation of internal and external attribution" (Malle 2011).

3 Methodology

In line with the gap in the literature, a basic qualitative approach was employed, in line with the interpretive paradigm of the research, which means that the central assumption of the research is that reality is socially constructed (Merriam 2009). This means that this research examined the multiple realities that the informants (i.e., HR managers) experienced in interacting with their poor-performing employee and the environment that surrounds their interactions. By focusing on the process, the research uncovered the various ways in which reality is sustained (Forray 2006). Thus, the outcome of this research could provide a better understanding of the managerial attribution process, which can explain how the managers handle poor-performing employees.

3.1 Informants and Data Collection

HR managers were chosen as the informants of this research due to their important role in designing and implementing HRM policies and practices that promote appropriate employees' behavior (Forray 2006; Gioia 2013; Chacko and Conway 2019). Data were supported by six selected informants based on three predetermined criteria, which were (i) they had worked in a managerial position in a human resource department with at least 1-year experience in managing the department;

(ii) the managers must be from private sector organizations; and (iii) the managers have had experience in terminating their own poor-performing subordinates. To maintain confidentiality, each informant was given a pseudonym. The descriptions of the informants' background are shown in Table 1.

The sample size of six informants was deemed acceptable in non-probabilistic sample size interviews if the informants were homogenous (Guest et al. 2006; Merriam 2009). Since all six informants in this research were homogenous (i.e., having the same role as human resource managers and the same law that governs the practice of managing poor-performing employees in private sector employment), therefore, six informants were deemed acceptable. Ethical issues were addressed by obtaining consent for voluntary involvement and ensuring the confidentiality of informants in the research.¹

The method of data collection was in-depth interviews; each interview lasted from an hour to about 2 hours. After each interview, the researcher transcribed the interview by listening to the audio recording and typing verbatim into a Microsoft Word document. As recommended by Merriam (2009), each informant was given a written transcript of their interviews to check for accuracy of responses, and changes were made if necessary. This step known as member check ensured the credibility of the data (Merriam 2009).

3.2 Data Analysis and Methods of Coding

The data were analyzed using ATLAS.ti. We relied on Saldana's (2016) method of coding, as illustrated in Fig. 2, which illustrates the procedure that the researcher conducted in transforming qualitative data collected from in-depth interviews into codes, categories, and themes. Coding is a process that is used to retrieve and categorize similar data chunks so that the researcher can quickly find, pull out, and cluster the segments related to a particular research question, construct, or theme (Miles et al. 2014). In this research, two methods of coding were utilized, i.e., Causation Coding (utilized under the First Cycle of Coding) and Pattern Coding (utilized under the Second Cycle of Coding). Following the coding process, the researcher developed overarching themes from the data by utilizing the Theming the Data method that weaves various themes together into a coherent narrative.

¹This research is part of the first author's PhD research. During the time the data was collected, the university did not require ethical committee approval for data collection.

Table 1 Biographical profile of informants

	Informant pseudonym	Age	Level of education	Job title	Industry	Current and previous employment		
						Years in managerial position	Number of poor-performing employees Managed	Terminated
1	Person A	43	Bachelor degree in HRM	Human resource assistant manager	Transportation	3	4	1
2	Person B	44	Bachelor degree in law	Human resource manager	Headquarter of a multi-national corporation	7	5	3
3	Person C	50	Bachelor degree in mass communication	Human resource director	Financial services	15	2	1
4	Person D	46	Bachelor degree in HRM	Human resource senior manager	Financial services	12	2	2
5	Person E	49	Bachelor degree in HRM	Human resource manager	Construction	4	2	1
6	Person F	57	Doctoral degree in knowledge management	Director	Non-government organization	22	2	1

Source: authors' compilation

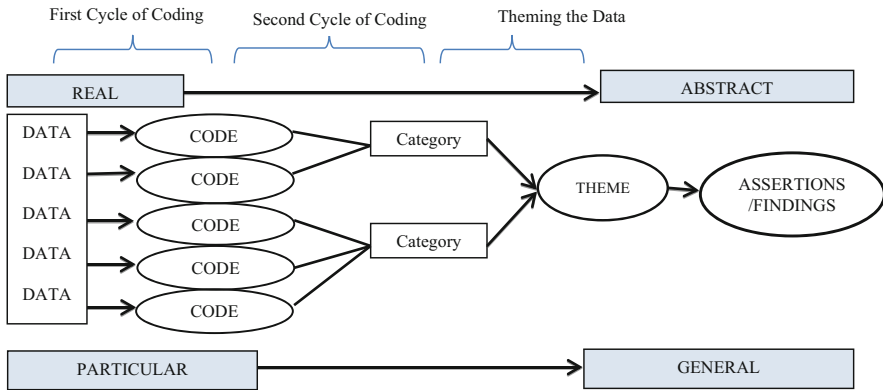


Fig. 2 Illustration of data analysis procedure. Source: based on Saldana (2016)

3.3 Trustworthiness and Consistency of the Data

The trustworthiness (validity) of the data was ensured through informant validation and data saturation. Informant validation means taking the preliminary analysis back to the informants (Merriam 2009). In this research, each informant was given a written transcript of their interview and was invited to make any change they deemed necessary. After they read through the transcript, they did not make any changes. Data saturation is a situation when no new categories emerge from the data (Guest et al. 2006; Fusch and Ness 2015) as the researcher saturates characteristics within the categories that emerged as significant (Morse 2015), in accordance with the research questions, and the underlying theoretical framework.

To ensure the consistency (reliability) of the data, the researcher utilized the audit trail technique and peer examination as recommended by Merriam (2009). For this purpose, the researcher kept a log of the process to record how data were collected; how codes, categories, and themes were derived; and how decisions were made throughout the research. The researcher also utilized a peer review technique, which involves discussion with colleagues regarding the process of study and tentative interpretations of data (Merriam 2009). Since this research is part of the researcher’s thesis under her doctoral degree program, the researcher had series of discussions with all the supervisory committees, experts in qualitative research, and experts in the ATLAS.ti software.

4 Results

The purpose of this study was to determine how HR managers assign causal attribution to performance issues among employees. This research found two findings, namely, assigning external attribution (Finding 1) and assigning internal

attribution (Finding 2). Themes under all the findings were derived by grouping the codes derived from raw data into two codes (i.e., code A, code B). This is in line with the research question (i.e., about assigning a cause to performance issue) and the definition of attribution, i.e., how an individual infers the causes of behaviors (Martinko et al. 2007; 2011). Therefore, the analysis was conducted by establishing the managers' pattern in assigning a cause to the poor performers' behavior. Thus, the codes were grouped by code A (cause) and code B (behavior). Code A (cause) was referring to the causal attribution as assigned by the managers, while code B (behavior) was referring to the poor performers' behavior as observed by the managers. The following sub-section explains these findings.

4.1 Finding 1: Assigning External Attribution

The findings of this study suggested that the managers assigned the cause of performance problems to external attribution due to six external factors, namely, conflict between the operation department and the HR department (theme 1), influence from others that made employee not focus on primary objective (theme 2), debt issues interfering with works (theme 3), family matters interfering with works (theme 4), personal matters interfering with works (theme 5), and mental health issues (theme 6). The following sub-section explains these findings.

Theme 1: Conflict between the Operation Department and the HR Department

The findings of this study suggested that the first factor that shaped the managers' beliefs of external attribution of poor performance is when the managers noticed that the subordinates performed poorly due to the conflict between the operation department and the HR department. One of the informants, Person A, said:

Some departments we work well with them, so it is easy for us to do our part. Some departments are challenging to work with. Either they don't agree with us or sometimes they think that they can get away with the process and policies of the HR Department. They want things fast. Sometimes it is because the [other] Head of Department [him/herself] is challenging. I understand the situation because I also had the same issue. So, I told my staff to escalate matters to me so I can bring to the top management

On the other hand, the sixth respondent, Person F, said:

There was one operation department which could not keep employees up to confirmation, so it shows in the [HR] department's KPI. The recruitment manager did not know what to do. Initially I thought my recruitment team did not do a good job. So, I look at the past recruitment process; it was well executed and found no reason why the recruited people couldn't do the job. I told the chairman I'll freeze recruitment for the [operation] department [until] she toned down her management style.

Theme 2: Influence from Others that Made Employees Not Focus on Primary Objective

The findings of this study suggested that the second factor that shaped the managers' beliefs in the external attribution of poor performance is when the managers noticed

that the subordinates were influenced by other employees that made the subordinates not focus on his or her primary objective, thus making them perform poorly at work. One informant, Person F, said:

I told the supervisor to actively engage with the poor performer and spend more time with the team so that his mind is able to refocus on the primary objective. Because that is human nature, and, by nature, he was good performer but he got influenced. Within 3 months his behavior changed and became good performer.

Another informant, Person E, said:

I'm not always in my office due to immigration matters. I need Tasha to help me with matters in the office [but] she always gave priority to the contract manager's request to help. I had to tell her that I'm her boss and that she had better follow what I say.

Theme 3: Debt Issues Interfering with Works

The findings of this study suggested that the third factor that shaped the managers' beliefs in the external attribution of poor performance is when the managers noticed that the subordinates perform poorly due to debt issues interfering with works. One of the informants, Person C, said:

If our life is full with debts and always have money issues...do you think we can focus [at work]? That is why in Islamic teaching, if we have debts, we will be restless during the day and cannot sleep at night, right? People are consistently after her [for the debt], so no wonder she is like that [cannot focus at work].

Theme 4: Family Matters Interfering with Works

The findings of this study suggested that the fourth factor that shaped the managers' beliefs in the external attribution of poor performance is when the managers noticed that the subordinates perform poorly due to family matters interfering with work. One of the informants, Person E, said:

[I said] Tasha you come here. You know what's wrong with this? I said this is a first reminder. You don't do this again. I understand you have family and you cannot focus on your work. But please [take this seriously and pay attention]. I also have a deadline.

Person E further described:

They are stressed including problems at home. When I assign a work assignment, they are not paying attention.

Theme 5: Personal Matters Interfering with Works

The findings of this study suggested that the fifth factor that shaped the managers' beliefs in the external attribution of poor performance is when the managers noticed that the subordinates perform poorly due to personal matters interfering with works. One of the informants, Person E, said:

[I told her] Aisyah, if the deadline is on the 16th, you only finish the work on the 18th, what do you think will happen? This is business, you know? [She missed the deadline because she was] always on Facebook and spent lots of time looking at her hand phone... used the office phone to call her house at Sabak Bernam... There are always problems that she needs to attend to...

Another informant, Person C, said:

External factors [and] too many personal issues made them cannot focus on work [and] cannot meet the work requirements. Personal issues related to family [and] money, especially for males, and the opposite sex, especially for females [made them] cannot focus on the job.

Theme 6: Mental Health Issues

The findings of this study suggested that the sixth factor that shaped the managers' beliefs in the external attribution of poor performance is when the managers noticed that the subordinates performed poorly due to apparent mental health issues. One of the informants, Person B, said:

He is a problematic person. He is a smart guy. So, he knows where to get MCs [Medical Certificates]. He knows how to monitor his KPI [Key Performance Indicator] and he will argue [about the KPI]. (But) he seems to have [some degree of] mental disturbance.

4.2 Finding 2: Assigning Internal Attribution

The findings of this study suggested that the managers assigned the cause of performance problems to internal attribution due to five internal factors, namely, lack of capability to perform task (theme 1), frequent tardiness issues (theme 2), negative attitude towards work outcome (theme 3), consistently showing negative attitude towards work (theme 4), and a combination of lack of capability to perform task, negative attitude towards work, and finally misconduct (theme 5). These findings also suggested that the pattern and frequency of the poor performers' behaviors had invoked the managers' internal attribution. The following sub-section explains these findings.

Theme 1: Lack of Capabilities to Perform Tasks

The findings of this study suggested that the first factor that shaped the managers' beliefs of internal attribution of poor performance is when the managers noticed that the subordinates perform poorly due to their lack of capability to perform a task. One of the informants, Person B, said:

We all called her 'Chief Food Officer'; she remembers birthdays, buys birthday presents, organizes farewell lunch, packs leftover food for staff, and buys me Nasi Lemak. [She does all of these because] it is easy for her to get help on things she is not capable of doing. I know the trick.

Another informant, Person C, said:

I find ways to make their job easy, for example, templates, business process improvement, and customized form so they can click on [but] she still makes mistakes.

Theme 2: Frequent Tardiness Issues

The findings of this study suggested that the second factor that shaped the managers' beliefs in the internal attribution of poor performance is when the managers noticed

that the subordinates have frequently shown tardiness issues. One of the informants, Person D, said:

They started to slack. [They started] coming in a little bit late and frequently on sick leave, and time-off. Our company allows time off to go [for example] to bank. [The issue arises] with their KPI [because the KPI is] based on project. They completed the project but late completion. They need to be reminded frequently. So, they started to slack

Another informant, Bardul, said:

When I first came in [the organization] he made trouble during my program. All these while he was always performing badly but [was] never under Performance Improvement Plan (PIP). He started missing-in-action (MIA) very frequently.

Theme 3: Negative Attitude Towards Work Outcome

The findings of this study suggested that the third factor that shaped the managers' beliefs in the internal attribution of poor performance is when the managers noticed that the subordinates perform poorly due to their negative attitude towards work outcome. Attitude is defined as one's summary evaluations of people, groups, ideas, and other objects, indicating like or dislike (Wolf et al. 2019). Thus, negative attitude in this finding refers to the managers' perspective of the poor performers' summary evaluation of their own work outcome, indicating the poor performers' negative summary evaluation. One of the informants, Person A, said:

Sometimes they are not serious about their job. It is just a job. *They* will come at 8.30 and go back at 6.00. It is just a job. When they just do whatever it is, if they don't finish, they don't finish. They don't think about the consequences. [They thought] if they don't meet the deadline it's ok.

Another informant, Person C, said:

We have lots of board meetings, so we need to prepare lots of paperwork based on data. [Thus,] the accuracy of data is very important. For her it's not a big deal as long as she has submitted her work with error.

Theme 4: Consistently Showing Negative Attitude at Work

The findings of this study suggested that the fourth factor that shaped the managers' beliefs in the internal attribution of poor performance is when the managers noticed the pattern of the subordinates consistently showing negative attitude at work. One of the informants, Person C, said:

A few errors [found in report]. It is the same report every month and she repeats the same error. I don't know whether she checked her work. She simply does it [without checking].

Another informant, Person D, said:

I have one staff noted for always challenging me, very outspoken, always argues. As a head of department, I always believe in principle of fairness and I always tell [my] staff [the] Head of Department is the decision-maker and the decision is at our discretion. Whatever the head says the staff must follow and I always tell the staff the reason why she will not get what she wants.

Theme 5: A Combination of Lack of Capability to Perform Task, Negative Attitude Towards Work, and, Finally, Misconduct

The findings of this study suggested that the fifth factor that shaped the managers' beliefs in the internal attribution of poor performance is when the managers noticed that the subordinates perform poorly due to a combination of lack of capability to perform task, negative attitude towards work, and, finally, the poor performer was caught for misconduct. One of the informants, Person B, said:

I recruited him, but the Compensation and Benefit Manager selected him during interview. After the Compensation and Benefit Manager left [the company] he was in charge of the portfolio and I was the Director. He was [an] abnormal staff. Definitely had performance issue, but I caught him doing something bad. He shared all the staff details with the insurance agency and forged his degree. I confronted him and he admitted.

Another informant, Person A, said:

He was handheld and was given enough information. He didn't have lack of resources. This is a task that this person is supposed to deliver but he did not deliver. There is nothing stopping him from doing his work.

5 Discussion and Implications

This research concluded that the managers assigned performance issues to either external or internal attribution due to whether the factors are internal factors (factors within the employees themselves) or external factors (factors outside the employees' control). The findings are in line with the definition of attribution, which concerns how an individual infers (deduces or concludes something from evidence and reasoning) the causes of behaviors (Martinko et al. 2007; 2011). In the case of external attribution, it means an individual infers (deduces or concludes something from evidence and reasoning) the causes of behaviors to the external factors (i.e., environmental factors outside of the employees' control), such as resources, co-worker support, or the luck of the poor-performing employees (McShane and Glinow 2015). In the case of internal attribution, it means an individual infers (deduces or concludes something from evidence and reasoning) the causes of behaviors to the internal factors (i.e., characteristics of the person as factors within the employees' control), such as the attitude, ability, or motivation of the poor-performing employee (McShane and Glinow 2015). Therefore, this study concluded that the managers relied on the factors that could explain the performance issues in assigning external or internal attribution. These findings are in line with the findings of Lakshman and Estay (2016) that attributional complexity (AC) provides people with sophisticated reasoning in the context of social judgment and behaviors, which helps them in making more accurate attributions. This is because attributional complexity and information processing of leaders lead to more accurate attributions (Fletcher et al. 1986; Lakshman 2008).

From the theoretical perspective, the findings of this research complement the Attribution Model of Leadership. This is because the findings that the managers were making external and internal attribution are fairly similar to the common leadership attribution studies in their attributions for poor-performing subordinates (For example, Ashkanasy 1989; Ashkanasy and Gallois 1994; Zhang et al. 2008). However, the main difference between the findings of this research and the past literature is that the past literature examined the managers' decisions based on covariance analysis (i.e., evaluation of directional relationships) to make an internal or external attribution for subordinates' behavior (Malle 2011), while the findings of this research explain the processes, from a qualitative perspective, that the managers relied on to construct a specific explanation of internal and external attribution. This is in line with Malle's (2011) argument that actual data to explain "what processes do people rely on to construct [a] specific explanation of internal and external attribution" is scarce. This is because past research (e.g., Ashkanasy 1989; Ashkanasy and Gallois 1994; Zhang et al. 2008) used dependent measures already framed in terms of the internal/external categories (the respondents were never asked to provide an explanation in their own words). More importantly, the participants were always presented with relevant covariation information, and, unsurprisingly, they made use of it (Malle 2011). In response to Malle's (2011) call that to identify an actual cause, one needs to rely on direct observation and on knowledge structures for what specific causes covary with what specific effects, the findings of this research are able explain what processes the managers relied on to construct a specific explanation of internal and external attribution from the informants' own words.

From the practical perspective, the findings of this research have the potential to inform HR practitioners and any managers dealing with poor performers to be aware of various factors in assigning causal attribution in managing poor performers. Managers in the workplace needed to be aware of the intertwining factors of external and internal attribution. Therefore, it is recommended that organizations include a well-informed managerial attribution process in preparing training for managers to help them improve attribution accuracy. This is because failure to recognize the existence of external attributions will lead managers to attribute poor-performing behaviors to internal attribution (Martinko et al. 2007), for example, the employee's attitude, which hinders a fair decision-making process. The understanding of attribution processes can help managers to orchestrate their efforts in making accurate attributions of their subordinates' behaviors, thus leading to optimistic expectancies and positive emotions in the workplace (Eberly and Mitchell 2013) that promotes fairness at workplace.

6 Limitations of Research

The findings of this research were derived based on experience of six human resource managers in the private sector organizations in the Klang Valley. Therefore, the researcher makes no claim that the findings from this research could be

generalized to represent the experience of all human resource managers in handling poor-performing subordinates. This is because generalizability of findings is not the aim of most qualitative research since typically it aims to study a specific issue in a specific context (Merriam 2009; Leung 2015), including this research. Thus, a quantitative research is needed to increase generalizability of the findings.

7 Conclusion

In conclusion, the findings of this research were able to provide empirical evidence based on the actual informants' experiences (as opposed to a hypothetical situation) of the external and internal attribution. The research concluded that the managers assigned performance issues to five internal factors (i.e., factors within the employees themselves), namely, lack of capability to perform task, frequent tardiness issues, negative attitude towards work outcome, consistently showing negative attitude towards work, and a combination of lack of capability to perform task, negative attitude towards work, and finally misconduct. The managers also assigned performance issues to six external factors (i.e., factors outside the employees' control), namely, conflict between the operation department and the HR department, influence from others that made employee not focus on primary objective, debt issues interfering with works, family matters interfering with works, personal matters interfering with works, and mental health issues. This study has contributed to the Attribution Model of Leadership, by providing an empirical evidence of internal and external attributions, in the context of managing poor-performing employees. While the Attribution Model of Leadership examined the managers' decisions based on covariance analysis, the findings of this research explain the processes, from a qualitative perspective, that the managers relied on to construct a specific explanation of internal and external attribution.

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What Should Automobile Businesses in Vietnam Care to Make Employee Creativity?



Dang Khoa Tran

Abstract This study was conducted to identify factors that automobile businesses in Vietnam should care to make their employees more creative. In order to accomplish the research objectives, qualitative and quantitative mixed research methods were used. Qualitative research aimed to adjust the scale of constructs to suit the Vietnamese market through discussions with 15 executives of car dealers in Vietnam. The result of the quality research was that there were 35 questions to measure 8 constructs in the model. A survey was then carried out with 315 employees working in the automobile businesses in Vietnam. Data collected was processed by SmartPLS software with Partial Least Squares Structural Equation Modeling (PLS-SEM). Research results showed that intrinsic motivation had the strongest influence on employee creativity than work engagement, goal clarity, self-efficacy, LMX exchange, creative self-efficacy, and process clarity. Besides, LMX exchange, intrinsic motivation, and self-efficacy also had indirect effect on employee creativity through work engagement. The administration implications from research results were that managers of automobile businesses in Vietnam could increase employee creativity by focusing on factors such as intrinsic motivation, work engagement, goal clarity, self-efficacy, LMX exchange, creative self-efficacy, and process clarity.

Keywords Automobile businesses · Employee creativity · Vietnam · Work engagement

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1 Introduction

Innovative ideas were the source of all enterprise innovation (Amabile 1996). More and more managers were realizing that they should encourage their employees to be creative (Shalley and Gilson 2004). Employee creativity could contribute to the organization's innovation, efficiency, and survival (Shalley and Gilson 2004).

After the removal of car import tax barriers from ASEAN countries in January 2018, the competition between automobile businesses in Vietnam market has been becoming increasingly fierce. Currently, there are 22 car brands in Vietnam market. For a developing market with a low-middle income like Vietnam, having many car brands puts a great deal of pressure on competition. According to Dung (2018), in 2017, many models had record a low sales volume such as Mekong Pronto (25 cars) and Suzuki Grand Vitara (72 cars). In addition, the main form of distribution of car manufacturers in Vietnam is through independent agents, and the number of dealers of each car brand is very large (44 Toyota dealers, 26 Honda dealers, 50 agents of Truong Hai Auto) (Dung 2018) making competition among dealers in each car brand also very fierce.

Since the 1980s, creativity and innovation have been the basis for the sustainable development of the automobile manufacturing and trading over the world market. It was directly and closely related to revenue and business performance of enterprises (Mohammad 2011). Therefore, the current automobile businesses in Vietnam need the creativity of their employees.

Previous research on employee creativity is divided into two main views. The first view studied employee creativity based on the three-component model of Amabile (Amabile 1983), which emphasized the importance of three main individual traits: intrinsic motivation, creativity skills, and creativity processes. The second view studied employee creativity based on the interaction model, mainly focusing on the environmental variables and the operating context in the relationship affecting creativity. Elder and Sawyer (2008) were the first to combine the two main views of research to predict interactions for the three components in the work environment. The independent variables affecting the employee creativity include intrinsic motivation, self-efficacy, goal clarity, process clarity, creative cognitive style, creative self-efficacy, and openness to experience.

According to literature review, factors that influence employee creativity identified from previous studies include intrinsic motivation, self-efficacy, XML exchange, work engagement, creative self-efficacy, goal clarity, process clarity, creative cognitive style, openness to experience, and cultural norms for diversity (Tierney et al. 1999; Jaskyte and Kisieliene 2006; Elder and Sawyer 2008; Bakker and Demerouti 2008; Li et al. 2017; Putra et al. 2017). The research questions are as follows: What factors do affect employee creativity in the context of Vietnam automobile businesses? Is there any difference between previous research findings?

A study had been conducted in the Vietnam automobile businesses with a survey of 315 employees. The research results found that intrinsic motivation had the strongest influence on employee creativity than work engagement, goal clarity,

self-efficacy, LMX exchange, creative self-efficacy, and process clarity. Besides, LMX exchange, intrinsic motivation, and self-efficacy also had indirect effect on employee creativity through work engagement. The findings showed that the employee creativity in the Vietnam automobile businesses is rather different from previous studies. It was because the special context of Vietnam, an emerging economy, is different from other developing economies.

This article is structured as follows: Section 2 contains the theory and hypotheses, i.e., the concept of employee creativity and its relationships between intrinsic motivation, self-efficacy, LMX exchange, goal clarity, process clarity, creative self-efficacy, and work engagement. Then, in Sect. 3, it presents the method used in the research, followed by Sect. 4 which covers the data analysis. After that, discussion with theoretical implications and practical implications are in Sect. 5. Conclusion is in Sect. 6.

2 Theory and Hypotheses

2.1 *Employee Creativity*

According to Amabile (2012), creativity was the process of creating a new, appropriate outcome, product, or solution for an open-ended task. The result, or a new product considered to be innovative, must be relevant to the task to be accomplished or the problem to be solved, meaning that it must be valuable, accurate, feasible, and relevant to a specific goal. A result, product, or solution that was considered creative must receive the recognition of experts or those familiar with the field in which it was created. This definition was the basis of most of later creativity research.

According to Cumming and Oldham (1997), employees showed creativity when they create a product, service, or process that was both new and useful to the company. Contribution was considered new when it provided something original or unique regarding the company's list of products, services, or processes. Besides, this contribution also needed to be helpful. It must be directly related to the goals that the business had set, and it must be something that the business could expect to extract some value in the short term or in the long term.

The interactive views of Woodman et al. (1993) on creativity were based on the idea that creativity was an individual-level phenomenon that could be affected by both personal and situational variables. In fact, it was the interaction between individual characteristics and specific situation variables that more fully anticipates creative performance. The model of Amabile (2012) all emphasized the role of contextual factors at the individual, group, and organizational levels. The model of Woodman et al. (1993) clearly emphasized the importance of interaction between personal characteristics and situations and was based on interactive psychology theory (Schneider and Reichers 1983). The researchers argued that peer effects were essential in identifying and understanding organizational characteristics that could enhance or limit creative behavior.

In this paper, employee creativity was defined on the basis of a combination of theories of Cumming and Oldham (1997) and Amabile (2012). Accordingly, creativity was the process of creating a new product, process, or solution. In addition, creativity also includes finding new uses for a material or solution and improving existing processes. In addition, these new products, processes, and solutions must be appropriate, useful, and practically applicable to organizations and businesses to gain value in the short or long term.

2.2 Factors Affecting Employee Creativity

In the last few decades, the topic of creativity has been studied by many researchers. These studies have analyzed the factors that influence creativity from different aspects as can be seen in Table 1.

According to Bakker and Demerouti (2008), Li et al. (2017), and Putra et al. (2017), intrinsic motivation, self-efficacy, and LMX exchange also affect work engagement.

Based on Table 1 and Table 2, intrinsic motivation, self-efficacy, LMX exchange, goal clarity, process clarity, creative self-efficacy, and work engagement were chosen to test as factors affecting employee creativity. Work engagement also was

Table 1 Factors affecting employee creativity

Factors	Jaskyte and Kisieliene (2006)	Elder and Sawyer (2008)	Tierney et al. (1999)	Bakker and Demerouti (2008)	Li et al. (2017)	Putra et al. (2017)
Intrinsic motivation	x	x	x			x
Self-efficacy		x		x		
LMX exchange			x			
Work engagement					x	
Creative self-efficacy		x				
Goal clarity		x				
Process clarity		x				
Creative cognitive style	x	x	x			
Openness to experience		x				
Cultural norms for diversity	x					

Source: author's own study

Table 2 Factors affecting work engagement

Factors	Bakker and Demerouti (2008)	Li et al. (2017)	Putra et al. (2017)
Intrinsic motivation		x	x
Self-efficacy	x		
LMX exchange		x	

Source: author’s own study

a mediator of the effect of intrinsic motivation, self-efficacy, and LMX exchange on employee creativity.

2.2.1 Intrinsic Motivation

Intrinsic motivation was studied in the early 1950s and became prominent, thanks to the work of Deci (1975) and Deci and Ryan (1985). Accordingly, intrinsic motivation referred to the motivational state in which an individual paid attention to his or her work, not to any external results that might occur as a result of the task (Deci 1975; Deci and Ryan 1985). And studies had shown job performance was very different when the internal motivation of employees was different (Deci and Ryan 2000).

Amabile (1983) argued that an individual’s intrinsic motivation plays an important role in identifying behaviors that could lead to creative results. This was because intrinsic motivation made the difference between what an individual could do and what an individual would do (Amabile 1983). Simon (1967) pointed out that the main function of intrinsic motivation was attention control. When employees actually engaged in the work, they were more likely to devote all their attention to solving the problems encountered at work. Such attention directed people to a creative process through self-adjustment (Kanfer 1990). Therefore, intrinsic motivation affected the extent to which an individual would participate in the creative process (Shalley et al. 2004). Therefore, hypothesis H1a was proposed as follows:

H1a: Intrinsic motivation could have a positive effect on employee creativity.

Highly motivated employees would maximize their efforts at work because of the interesting, challenging, and engaging tasks for them (Deci and Ryan 2000). Studies also showed that motivated employees tended to be more engaged in physical, emotional, and cognitive work in challenging and meaningful tasks (Van Beek 2012). Therefore, hypothesis H1b was proposed as follows:

H1b: Intrinsic motivation could have a positive effect on work engagement.

2.2.2 Self-Efficacy

Self-efficacy referred to an employee’s assessment of their ability to organize and implement an action process to achieve specific types of performance (Bandura

1986). When the self-efficacy of each employee's work increases, they made more efforts, became more persistent, and learned to cope with task-related obstacles (Bandura 1986). Methods for stimulating self-efficacy, self-esteem, or confidence had been identified as effective predictors for creativity (Mumford and Gustafson 1988). Therefore, hypothesis H2a was proposed as follows:

H2a: Self-efficacy could have a positive effect on employee creativity.

Research had also shown that people with a high degree of self-efficacy see problems as challenges, had a higher commitment to the activities they performed, and invested more time and effort for their daily activities (Bandura 2001). Therefore, hypothesis H2b was proposed as follows:

H2b: Self-efficacy could have a positive effect on work engagement.

2.2.3 LMX Exchange

The LMX exchange theory was built on the basis of social exchange theory (Blau 1964) and assumed that the relationship between managers and each employee was different (Graen and Uhl-Bien 1995) and this relationship was adjusted over time as a result of expected and fulfilling roles between leaders and members. Creativity was closely related to trial and error and success and failure so that workers needed to try new ways in the face of failure. However, individuals could not try new ways to do their jobs without the freedom and encouragement of their leaders. In addition, employees were empowered, were equipped with more information and resources, and felt confident and more effective on their mission activities. Therefore, they were willing to change and create (Spreitzer 1995). Therefore, hypothesis H3a was proposed as follows:

H3a: LMX exchange could have a positive effect on employee creativity.

Employees with a high LMX exchange would be more empowered. Employees would have easier access to information, assistance, and participation in decision-making (Wang et al. 2005). When leader-member exchange (LMX) quality is translated into employee job outcomes (Fatima et al. 2020), they worked harder, were more committed to mission goals, shared more administrative tasks, and were expected to be loyal to their leaders. Besides, it also identified the influence of individual personality traits, leadership styles, and organizational culture on employees' level of duty orientation (Frolova and Mahmood 2019). Therefore, hypothesis H3b was proposed as follows:

H3b: LMX exchange could have a positive effect on work engagement.

2.2.4 Goal and Process Clarity

Clarity of goals was important in organizations because it allowed employees to devote more time to fulfilling their expectations (Elder and Sawyer 2008). Studies of goal and process clarity had shown that employees could focus more on their work after their goals and processes were specified by managers (Kahn et al. 1964). This showed the clarity of goals and processes that would allow employees to put more effort into their work, thus positively impacting creativity. Therefore, hypotheses H4 and H5 were proposed as follows:

H4: Goal clarity could have a positive effect on employee creativity.

H5: Process clarity could have a positive effect on employee creativity.

2.2.5 Creative Self-Efficacy

The creative self-efficacy was extended from self-efficacy and was defined as a belief that reflects an employee's confidence in their ability to perform a creative task Tierney et al. (1999). Individuals with high creative self-efficacy could mobilize the motivation, cognitive resources, and action sequences necessary to meet the situation needs. They spent more time on creative cognitive processes in problem awareness as well as generating ideas or solutions, and they made more efforts to seek support for ideas and produce raw materials template for creativity. Creative self-efficacy was confirmed as a variable affecting a person's creativity Tierney et al. (1999). The creative self-efficacy had been described as allowing individuals to persistently face obstacles and face challenges in creative participation Tierney et al. (1999). Therefore, hypotheses H6 was proposed as follows:

H6: Creative self-efficacy could have a positive effect on employee creativity.

2.2.6 Work Engagement

Bakker and Leiter (2010) suggested that work engagement, as a positive experience, created an impetus to expand oneself through learning and accomplishing goals. Employees who were energetic, dedicated, and passionate about their work would tend to use their skills or acquire new skills to create. A positive mood seems to be important for creativity. According to Li et al. (2017), job engagement had a positive influence on employee creativity. Therefore, hypothesis H7 was proposed as follows:

H7: Work engagement could have a positive effect on employee creativity.

3 Methodology

Qualitative and quantitative mixed research methods were used. Qualitative research aimed to adjust the scale of constructs to suit the Vietnamese market through discussions with 15 executives of car dealers in Vietnam. Convenient sampling method had been used in the study. The survey was conducted in May 2019. There were 350 questionnaires sent with the structure as follows: 130 questionnaires were sent to employees working in automobile businesses in the South of Vietnam; 100 questionnaires were sent to employees working in automobile businesses in the Central of Vietnam; and 120 questionnaires were sent to employees working in automobile businesses in the North of Vietnam. As the result, there were 315 valid questionnaires used in the research with the ratio of 90% (South of Vietnam: 122/130, 93.8%; Central of Vietnam: 87/100, 87%; North of Vietnam: 106/120, 88.3%). Data collected was processed by using the Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software version 3.0. The measurement model was evaluated through internal consistent reliability indicators (Cronbach's alpha is higher than 0.7; composite reliability factor is higher than 0.5), evaluation of convergent validity (outer reliability is higher than 0.7; AVE is higher than 0.5), and evaluation of discriminant validity (the Fornell and Larcker (1981) criterion and cross-loadings). Next, the structural model was evaluated with as follows: examined the structural model for collinearity; assessed the path coefficients in the structural model; evaluated the coefficients of determination (R^2 values); evaluated the f^2 effect size; and used the blindfolding procedure to assess the predictive relevance (Q^2 value) of the path model (Hair Jr et al. 2016).

4 Results

4.1 The Demography Analysis of the Respondents

The demography of 315 respondents (Table 3) can be described as follows. The responders with gender of male are mainly in the sample with a ratio of 60.6% (191 respondents), while female is 39.4% (121 respondents). There are 85 employees with age under 25 years old (27%) and 127 employees with age from 25 to 35 years old (40.3%), while employees with age above 35 years old are 103 respondents (32.7%). Employees who have income under \$800 per month are majority in the sample (137 respondents, 43.5%), followed by people with income from \$800 to \$1200 per month (116 respondents, 36.8%) and finally employees with income more than \$1200 per month (62 respondents, 19.7%). Most responders have experience of working in their company from 2 years and more (266 respondents, 84.5%), and

Table 3 The demography analysis of the respondents

Items		Quantity	Ratio (%)
Gender	Male	191	60.6
	Female	124	39.4
Age	Under 25 ages	85	27.0
	From 25 to 35 ages	127	40.3
	More than 35 ages	103	32.7
Income per month	Under \$800	137	43.5
	From \$800 to \$1200	116	36.8
	More than \$1200	62	19.7
Experience	From 1 to under 2 years	49	15.6
	From 2 to 5 years	137	43.5
	More than 5 years	129	41.0

Source: author’s own study

only 15.6% of respondents have working experience in their company from 1 to under 2 years (49 respondents). The demography shows that this sample is suitable to conduct the data analysis in the study.

4.2 Testing of Reliability and Validity of the Measurement Model

The result of testing of reliability and validity of the measurement model can be seen in Table 4.

The outer loadings of all variables were greater than 0.7 so they were valid (Hair Jr et al. 2016). All t-statistics of observed variables were also valid because they were greater than 1.96. *Assessment of internal consistency reliability*: All variables had Cronbach’s alpha greater than 0.7 and composite reliability greater than 0.7. Thus, it could be concluded that latent variables all achieved consistent internal reliability (Hair Jr et al. 2016). *Evaluation of convergent validity*: All variables had outer loading greater than 0.7 and all AVEs greater than 0.5. So, it could be concluded that all latent variables were convergently valid (Hair Jr et al. 2016). *Evaluation of discriminant validity*: The first criterion is the Fornell-Larcker criterion, which demands that the root square of AVE (Table 5) for each latent variable should be greater than the correlation with any other latent variable (Fornell and Larcker 1981). In Table 5, we see that these criteria are achieved. The second criterion is that the loading of each indicator is expected to be greater than all of its cross-loadings. This was also analyzed, and each construct has loadings with higher values than their cross-loadings; this result is available from the author upon request. The heterotrait-monotrait ratio (HTMT) table (Table 6) is available upon request, and all values are below the threshold of 0.9 (Hair Jr et al. 2016).

Table 4 Reliability and validity of the constructs

Latent constructs and questions	Source	Item	Outer loading	T value
Intrinsic motivation ($\alpha = 0.881$; CR = 0.918; AVE = 0.737)				
I like to find solutions to complex problems	Tierney et al. (1999)	InM1	0.856	41.852
I like to come up with new ideas for the product		InM2	0.851	50.918
I like to engage in analytical thinking		InM3	0.842	37.281
I like to create new processes to do the job		InM4	0.884	53.176
Self-efficacy ($\alpha = 0.889$; CR = 0.923; AVE = 0.751)				
I can achieve most of the goals that I have set for myself	Elder and Sawyer (2008)	Aut1	0.884	54.290
I am confident that I can work effectively with many different jobs		Aut3	0.848	39.374
Compared to others, I can get most of the job done better		Aut1	0.864	45.789
Even when things are tough, I can get things done well		Aut1	0.870	53.981
LMX exchange ($\alpha = 0.885$; CR = 0.916; AVE = 0.685)				
You often know the level of leadership satisfaction with what you do	Tierney et al. (1999)	LMX1	0.847	48.244
Your leadership understands your issues and needs at work		LMX2	0.814	37.488
Your leadership understands your potential		LMX3	0.821	37.763
Your leadership often uses the authority within their scope to assist you in solving problems		LMX4	0.843	45.644
You trust the leadership enough to defend and justify their decision in their absence		LMX6	0.814	26.849
Goal clarity ($\alpha = 0.864$; CR = 0.908; AVE = 0.711)				
I understand my duties and responsibilities at work	Elder and Sawyer (2008)	UnG1	0.826	36.528
I understand the goals that I need to achieve at work		UnG2	0.815	33.342
I understand the connection between my work and my common goals		UnG3	0.851	50.444
I understand which aspects of my job will yield positive reviews		UnG4	0.880	50.087
Process clarity ($\alpha = 0.787$; CR = 0.857; AVE = 0.600)				
I understand how my time should be allocated to the tasks necessary for my work	Elder and Sawyer (2008)	UnP1	0.811	8.389
I know how to determine the right process for each of my parts		UnP2	0.796	6.596
The process I use to do my job is accurate and reasonable		UnP3	0.717	5.165
I know the best way to do my job		UnP4	0.772	5.449

(continued)

Table 4 (continued)

Latent constructs and questions	Source	Item	Outer loading	T value
Creative self-efficacy ($\alpha = 0.868$; CR = 0.910; AVE = 0.716)				
I feel I'm good at creating new ideas	Elder and Sawyer (2008)	AuC1	0.853	48.134
I am confident with my ability to solve problems creatively		AuC2	0.854	48.770
I have a knack for developing other people's ideas		AuC 3	0.828	37.538
I have the talent and skills to handle my job well		AuC4	0.851	43.314
Work engagement ($\alpha = 0.867$; CR = 0.904; AVE = 0.654)				
At work, I feel energetic	Bakker and Demerouti (2008)	Com1	0.769	26.450
I am enthusiastic about my work		Com2	0.801	34.850
I immersed myself in my work		Com4	0.866	52.471
When I work, I feel lost in another world		Com5	0.785	33.926
I am proud of what I am doing		Com6	0.818	33.338
Employee creativity ($\alpha = 0.892$; CR = 0.920; AVE = 0.698)				
I accept the risks of proposing new ideas to do the job	Tierney et al. (1999)	Cre1	0.865	53.407
I have found new effects for existing methods or devices		Cre2	0.854	43.592
I have tried to approach the problem with new ideas		Cre3	0.816	38.917
I create something new, but it can be used for work-related ideas		Cre5	0.840	50.181
I have identified opportunities for new products/ processes		Cre6	0.801	33.611

Source: author's own study

Table 5 Fornell-Larcker criterion

	1	2	3	4	5	6	7	8
1. Creative self-efficacy	0.846							
2. Employee creativity	0.406	0.836						
3. Goal clarity	0.256	0.490	0.843					
4. Intrinsic motivation	0.191	0.489	0.345	0.859				
5. LMX exchange	0.224	0.436	0.319	0.223	0.828			
6. Process clarity	0.088	0.171	0.010	0.114	0.157	0.774		
7. Self-efficacy	0.323	0.462	0.348	0.257	0.339	0.112	0.867	
8. Work engagement	0.362	0.497	0.443	0.261	0.357	0.058	0.329	0.808

Source: author's own study

4.3 Testing of the Structural Equation Model

The measurement model is satisfactory. Therefore, it is possible to test the structural model. This article used a bootstrapping of 500 resamples to estimate the statistical significance of path coefficients.

Table 6 Heterotrait-monotrait ratio (HTMT)

	Original sample	P values
Employee creativity → creative self-efficacy	0.458	0.000
Goal clarity → creative self-efficacy	0.293	0.000
Goal clarity → employee creativity	0.555	0.000
Intrinsic motivation → creative self-efficacy	0.214	0.001
Intrinsic motivation → employee creativity	0.545	0.000
Intrinsic motivation → goal clarity	0.397	0.000
LMX exchange → creative self-efficacy	0.253	0.000
LMX exchange → employee creativity	0.489	0.000
LMX exchange → goal clarity	0.363	0.000
LMX exchange → intrinsic motivation	0.249	0.000
Process clarity → creative self-efficacy	0.097	0.023
Process clarity → employee creativity	0.192	0.001
Process clarity → goal clarity	0.056	0.046
Process clarity → intrinsic motivation	0.137	0.013
Process clarity → LMX exchange	0.197	0.001
Self-efficacy → creative self-efficacy	0.365	0.000
Self-efficacy → employee creativity	0.515	0.000
Self-efficacy → goal clarity	0.398	0.000
Self-efficacy → intrinsic motivation	0.290	0.000
Self-efficacy → LMX exchange	0.379	0.000
Self-efficacy → process clarity	0.125	0.010
Work engagement → creative self-efficacy	0.414	0.000
Work engagement → employee creativity	0.566	0.000
Work engagement → goal clarity	0.510	0.000
Work engagement → intrinsic motivation	0.296	0.000
Work engagement → LMX exchange	0.407	0.000
Work engagement → process clarity	0.082	0.021
Work engagement → self-efficacy	0.373	0.000

Source: author's own study

The results of the hypotheses of structural model are illustrated in Fig. 1 and Table 7. First, the research explains 52.3% of variation in employee creativity in the conceptual model. The hypotheses of intrinsic motivation ($\beta = 0.268$; $p < 0.01$), work engagement ($\beta = 0.184$; $p < 0.01$), goal clarity ($\beta = 0.170$; $p < 0.01$), self-efficacy ($\beta = 0.163$; $p < 0.01$), LMX exchange ($\beta = 0.156$; $p < 0.01$), creative self-efficacy ($\beta = 0.153$; $p < 0.01$), and process clarity ($\beta = 0.070$; $p < 0.10$) are statistically significant. Therefore, hypotheses H1a, H2a, H3a, H4, H5, H6, and H7 are supported.

Second, work engagement explained 19.8% of variation in the conceptual model. The hypotheses of LMX exchange ($\beta = 0.254$; $p < 0.01$), intrinsic motivation ($\beta = 0.152$; $p < 0.01$), and self-efficacy ($\beta = 0.204$; $p < 0.01$) are statistically significant. Therefore, hypotheses H1b, H2b, H3b, H5b, and H6 are supported.

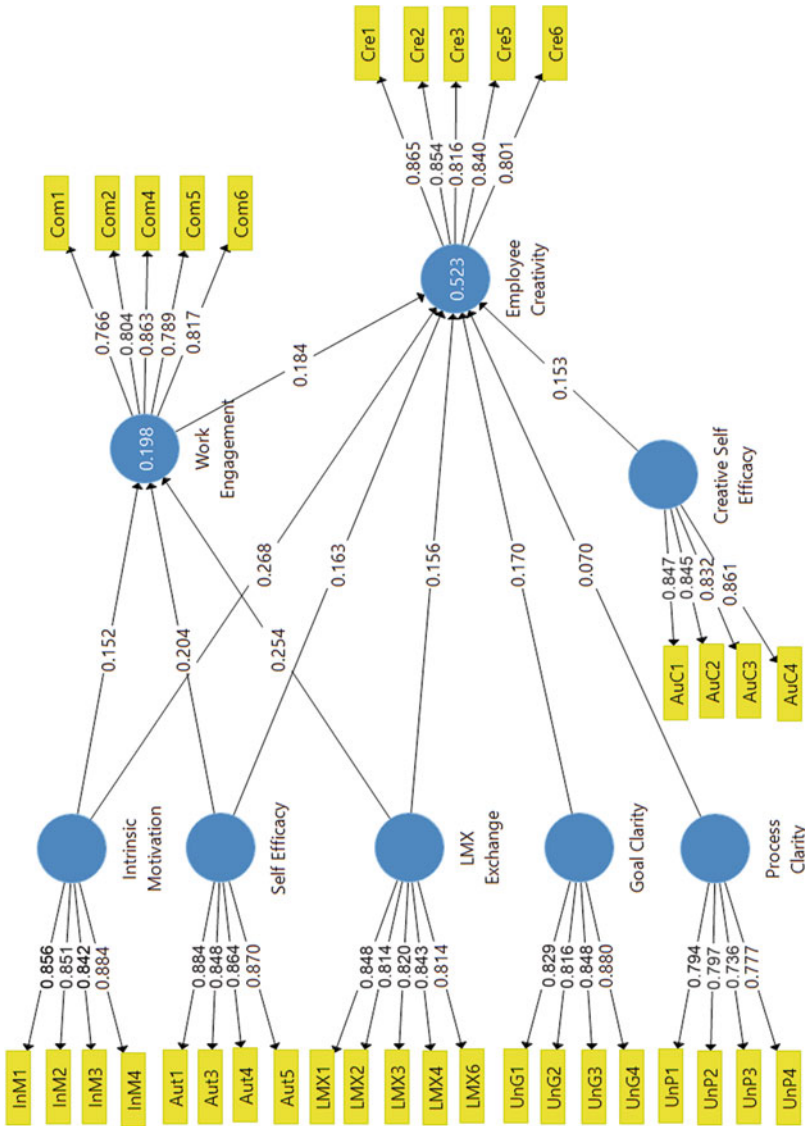


Fig. 1 Structural equation model. Source: author's own study

Table 7 Path coefficients' testing results

	β	P values	VIF	Hypotheses test
Creative self-efficacy → employee creativity	0.153	0.004	1.226	Accept H6
Goal clarity → employee creativity	0.170	0.002	1.427	Accept H4
Intrinsic motivation → employee creativity	0.268	0.000	1.194	Accept H1a
Intrinsic motivation → work engagement	0.152	0.007	1.095	Accept H1b
LMX exchange → employee creativity	0.156	0.003	1.277	Accept H3a
LMX exchange → work engagement	0.254	0.000	1.155	Accept H3b
Process clarity → employee creativity	0.070	0.074	1.045	Accept H5
Self-efficacy → employee creativity	0.163	0.001	1.315	Accept H2a
Self-efficacy → work engagement	0.204	0.001	1.176	Accept H2b
Work engagement → employee creativity	0.184	0.000	1.444	Accept H7

Source: author's own study

Table 8 Impact factor f^2

	f^2	Level of impact
Creative self-efficacy → employee creativity	0.040	Weak
Goal clarity → employee creativity	0.042	Weak
Intrinsic motivation → employee creativity	0.126	Average
Intrinsic motivation → work engagement	0.026	Weak
LMX exchange → employee creativity	0.040	Weak
LMX exchange → work engagement	0.070	Weak
Process clarity → employee creativity	0.010	Weak
Self-efficacy → employee creativity	0.042	Weak
Self-efficacy → work engagement	0.044	Weak
Work engagement → employee creativity	0.049	Weak

Source: author's own study

All VIF coefficients (Table 7) are below 2. It shows that there is no collinearity phenomenon (Hair Jr et al. 2016).

According to Table 8, it could be said that only intrinsic motivation had an average impact on the employee creativity with an impact factor f^2 of 0.126. Other factors had a weak impact on employee creativity and/or work engagement with an impact factor f^2 from 0.04 to 0.07 (Hair Jr et al. 2016). The values of Q^2 were 0.322 and 0.117 (significantly larger than zero). This result showed a relevant forecast of the model of endogenous potential variables (Hair Jr et al. 2016).

5 Discussion

5.1 Theoretical Implications

This research has two theoretical implications. Firstly, employee creativity is positively affected by intrinsic motivation, work engagement, goal clarity, self-efficacy,

LMX exchange, creative self-efficacy, and process clarity. Most of the results are consistent with previous findings (Elder and Sawyer 2008; Bakker and Demerouti 2008; Li et al. 2017; Putra et al. 2017). There are two differences. First, this study shows intrinsic motivation has the strongest impact on employee creativity, while other researches emphasized self-efficacy (Bakker and Demerouti 2008). Second, excluding the research of Elder and Sawyer (2008), most of the previous studies did not find out the effect of goal clarity, self-efficacy, and process clarity on employee creativity.

Secondly, employee creativity is also indirectly positively affected by LMX exchange, intrinsic motivation, and self-efficacy through work engagement. These results are consistent with previous findings of Elder and Sawyer (2008). There is a difference from other research findings (Bakker and Demerouti 2008; Li et al. 2017; Putra et al. 2017).

5.2 Practical Implications

There are some practical implications from this study. First, to make the employee creativity, automobile businesses in Vietnam should focus on factors such as “intrinsic motivation,” “work engagement,” “goal clarity,” “self-efficacy,” “LMX exchange,” “creative self-efficacy,” and “process clarity.” To increase intrinsic motivation, managers of automobile businesses should provide policies to make their employees like to find solutions to complex problems, engage in analytical thinking, come up with new ideas for the product, and create new processes to do the job.

Second, automobile businesses in Vietnam also could make their employees have more work engagement by making them feel energetic, enthusiastic about work, proud of what they do, and lost in another world when they work.

Third, goal clarity could be made by helping employees understand their duties and responsibilities at work, the goals that they need to achieve at work, the connection between their work and their common goals, and which aspects of their job will yield positive reviews. Automobile businesses in Vietnam could create self-efficacy to their employees by helping them achieve most of the goals that they have set for themselves, feel confident that they can work effectively with many different jobs, and get most of the job done better and well. For increasing LMX exchange, managers of automobile businesses in Vietnam should understand their employees’ issues and needs at work and their potential, show the level of their satisfaction with what their employees do, often use the authority within their scope to assist their employees in solving problems, and trust the leadership enough to defend and justify their decision in their absence. Automobile businesses in Vietnam should recruit employees who have creative self-efficacy characteristics such as feel good at creating new ideas, confident with their ability to solve problems creatively, have a knack for developing other people’s ideas, and have the talent and skills to handle their job well. Finally, the process clarity factor could be increased by helping

employees to understand how their time should be allocated to the tasks necessary for their work, know how to determine the right process for each of their parts, think the process they use to do their job is accurate and reasonable, and know the best way to do their job.

5.3 Limitations and Future Research

This research has some limitations. First, this study was just conducted in Vietnam. Therefore, future researches should be conducted in other countries which have an emerging economy like Vietnam so that we can clearly understand factors affecting employee creativity in emerging economies compared to developed economies. Second, LMX exchange, intrinsic motivation, and self-efficacy only explain 19.8% of the variation of work engagement. Therefore, future research should be conducted with more factors such as work environment, income, job, and so on. Third, intrinsic motivation, work engagement, goal clarity, self-efficacy, LMX exchange, creative self-efficacy, and process clarity only explain 52.3% of the variation of employee creativity. Thus, future studies should investigate more factors and their antecedents. Fourth, there may be more mediators beside work engagement so future research can explore them.

6 Conclusion

There are several contributions of this research. First, the research shows that the creativity of employees in automobile businesses in Vietnam is affected by intrinsic motivation, work engagement, goal clarity, self-efficacy, LMX exchange, creative self-efficacy, and process clarity. Second, the findings of this study also show that LMX exchange, intrinsic motivation, and self-efficacy have an indirect effect on employee creativity through work engagement. Third, it shows that intrinsic motivation has the strongest impact on employee creativity so managers of automobile businesses in Vietnam should pay more attention on this factor to make their employees more creative. Fourth, beside intrinsic motivation, managers of automobile businesses in Vietnam should care more about LMX exchange, intrinsic motivation, and self-efficacy because they not only have direct impact but also have indirect effect on employee creativity through work engagement.

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Part II

Management

Investigating the Quality of Psychometric Properties Via Rasch Model



Amal Hayati Ishak, Siti Khadijah Ab Manan, and Rafeah Saidon

Abstract The Rasch model is beneficial for validating psychometric properties via a series of indicators. This article elaborates on these indicators, based on the results of a newly developed measurement scale: the Islamic Quality Management Scale (IQMS). The IQMS targets to measure the application of Islamic values in the context of quality management. IQMS is proposed to overcome the weakness of existing scales, which merely focus on material aspects of quality management, disregarding the innate value content of quality management. Based on systematic literature review, a list of good values in the context of quality management is extracted and subsequently conceptualized based on the relevant Quranic verses and prophetic traditions. A list of psychometric properties was developed and validated via the Rasch model. This article elaborates on the empirical evidences of the IQMS reliability via three measures: item polarity analysis, fit statistics, and local item dependency. As these analyses prompt on item scrutiny rather than direct removal, this article discusses the interpretation of the analyses, the appropriate decision taken, and its effectiveness. Based on the results, 11 items are suggested for removal, in order to have a robust measurement scale, which later can be used to evaluate the application of values in quality management context.

Keywords Item fitness · IQMS · Psychometric properties · Reliability · Rasch model

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1 Introduction

The Rasch model is an appropriate tool to measure latent variables (DeVellis 2012). It has been increasingly used especially in scale development studies (DeVellis 2012) in various branches of social sciences. For instance, the research conducted by Bechtel (1985) used Rasch for a consumer rating scale, while Albano (2009) used Rasch for the measurement of individual happiness, and Salzberger and Koller (2013) used Rasch in their marketing study. For the purpose of evaluating the quality of measurement items, the Rasch model offers several analyses. Among them are the item polarity analysis, fit statistics, and local item dependency.

Latent variables can be measured by two common theories: the classical test theory and the item response theory. The Rasch measurement model belongs to the family of item response theory which explains latent variables' measurement (DeVellis 2012). It contains methods to link observed elements with latent constructs and how to analyze them for a meaningful result.

The Rasch model has been tested on the Islamic Quality Management Scale (IQMS) which has been developed systematically via a design and development approach. The IQMS is significant in order to serve as a standard measurement scale to assess the application of Islamic values in organizations. A review in the discipline of quality management has informed on the inexistence of a standard measurement scale to assess the application of values in organizations. Moreover, there is no empirical data on the influence of Islamic values to quality management practice as the existing scale has scarcely referred to Islamic values (Ishak 2016). Therefore, a list of psychometric properties is developed and validated via the Rasch model. This article reports on the validation results based on three measures of item quality, the interpretation, as well as the sensible decision appropriate to be taken by the researcher. Additionally, this article also evaluates the decision's effectiveness.

2 The Methodology

Rasch is a probabilistic model which uses logit as measurement units (Bond and Fox 2007). Interestingly, the data can be mapped into a linear scale, which facilitates data reporting. Ironically, interval data is actually a requirement to perform factor analysis, but existing studies mainly used ordinal data (Simblett and Bateman 2011; Hobart and Cano 2009; Muller and Roddy 2009). However, Rasch provides a solution as it transforms the ordinal response into interval scale using probabilistic functions (Linacre 2002; Bond and Fox 2007; Azrillah et al. 2013). Scholars including Bond and Fox (2007), Tennant and Conaghan (2007), and Azrillah et al. (2013) have agreed that the Rasch model provides sufficient parameters for a good measurement with the advantage of, among others, providing a linear scale, transforming ordinal data into interval data, proposing suggestion for missing data, and assessing

items' quality. Thus, it is commonly suitable for validating the reliability of a newly developed measurement scale.

The Islamic Quality Management Scale (IQMS), tested in this article, is an instrument meant for measuring the application of Islamic values in quality management context. Based on an extensive literature review of previous researchers (Ishak and Osman (2016); Ishak and Osman (2019)), this article reports on the validity of 60 items vested under 8 dimensions. The IQMS is proposed as a new measurement since the existing tools marginally refer to Islamic substances and are found to be narrowed down to physical or hardcores of quality management. Moreover, the existing empirical studies have narrowly analyzed values based on the general framework of Hofstede's cultural dimensions (Baird et al. 2011), Competing Values Framework (CVF) of O'Reilly (Prajogo and McDermott 2011; Prajogo and McDermott 2005; Gambi et al. 2013), organizational culture profile (OCP) of Quinn and Rohrbaugh (Denison and Spritzer 1991), and Detert's framework (Detert et al. 2000; Detert et al. 2003).

However, at the advent of the twenty-first century, there is consistent inclination among contemporary scholars to elaborate quality management based on Islamic perspectives. These are referred to the writings of Khaliq (Khaliq 1996), Abulhasan and Khaliq (1996), Al-Buraey (2005), Sany et al. (2011), Siti and Azmi (2011), and Ishak and Osman (2016). The major similarity in their works is the conceptual elaboration on a list of values embedded in the practice of quality management. Only few empirical data on that matter are reported, and the appropriate instrument could not be located, which translate the gap to introduce IQMS.

This study employed organizations as the unit of analysis. In tandem with the use of the Rasch model as the method of analyses, the determination of adequate sample size followed the recommendation by Linacre (1994). Table 1 explains the minimum and best determined number of sample size.

For each organization, the targeted respondents were individuals who understand and have knowledge on quality management implementation in their organizations. Thus, for well-targeted respondents, this study administered the IQMS among participants of ISO9001 training session, organized by a national-level certification body. The training session was participated by individuals who were directly involved in quality management such as the management representatives, the document controller, or the quality department staff to represent their organizations. Out of 200 questionnaires, 59 were returned, with a response rate of 29.5%. The number of respondents is considered as sufficient in the Rasch model analysis, at the 99% confidence interval (Linacre 1994).

Table 1 Item point-measure correlation for pilot test

Code	Item point-measure correlation	Code	Item point-measure correlation	Code	Item point-measure correlation
TF01	0.57	DIL12	0.59	Com04	0.56
TF02	0.61	DIL13	0.74	Com05	0.21
TF03	0.54	BoT01	0.70	Com06	0.33
TF04	0.38	BoT02	0.68	Coo01	0.64
TF05	0.57	BoT03	0.71	Coo02	0.65
TF06	0.64	BoT04	0.56	Coo03	0.64
TF07	0.53	BoT05	0.57	Coo04	0.66
TF08	0.44	OtC01	0.65	Coo05	0.55
TF09	0.46	OtC02	0.70	Con01	0.39
DIL01	0.55	OtC03	0.65	Con02	0.57
DIL02	0.60	OtC04	0.73	Con03	0.69
DIL03	0.70	OtC05	0.54	Con04	0.69
DIL04	0.67	VT01	0.59	Con05	0.48
DIL05	0.72	VT02	0.63	Con06	0.65
DIL06	0.70	VT03	0.61	Con07	0.69
DIL07	0.74	VT04	0.45	Con08	0.54
DIL08	0.63	VT05	0.41	Con09	0.53
DIL09	0.65	Com01	0.70	Con10	0.67
DIL10	0.56	Com02	0.72	Con11	0.69
DIL11	0.55	Com03	0.60	Con12	0.43

Source: Data collection by the researcher

3 Analyses and Discussion

3.1 Item Polarity Analysis

In the Rasch model, information on response validity is provided by analysis of item polarity, which can be detected from the value of item point-measure correlation. Table 1 presents the value of point-measure correlation for 61 items. The positive values show that the responses were valid. Any negative value is undesirable as it signals that the item is measuring in the wrong direction. Thus, it is a sign of distortion and required further scrutiny, to either remove the item or retain it. Based on Table 1, all responses were valid with a maximum value of point-measure correlation of 0.74 and a minimum value of 0.33.

3.2 Item Fit Analysis

An item is considered as misfit if it simultaneously falls outside the acceptable ranges of mean square ($0.5 < \chi < 1.5$), z-standard ($-2.0 < \chi < 2.0$), and

Table 2 Summary of misfit items for pilot test

	Code	Summary of item	Measure	MNSQ	Z-STD	PMC
1.	Com05	Separate work station	1.59	2.7	8.3	0.21
2.	Com06	Separate prayer room	-0.58	2.34	5.2	0.32

Source: Data collection by the researcher

Table 3 Analysis on the effectiveness of misfit items’ removal

	Com05		Com06	
	Before removal	After removal	Before removal	After removal
Item reliability	0.87	0.88	0.87	0.90
Item separation	2.57	2.93	2.57	2.90
Person separation	4.86	4.86	4.86	4.86
Item infit MNSQ SD	0.40	0.36	0.40	0.33
Person infit MNSQ SD	0.45	0.45	0.45	0.45

Source: Data collection by the researcher

point-measure correlation or PMC ($0.4 < \times < 0.8$). Based on the analysis, there are only two items (Com05 and Com06) which did not fit the model. This shows that both items do not measure similar trait or are not unidimensional with other items (Bond and Fox 2007). In such case, Rasch suggests on the items’ removal. Table 2 reports on these items. The values for MNSQ and z-standard are far beyond the acceptable ranges, while the PMC are slightly lower than the desired value.

According to Bond and Fox (2007), Rasch provides several rationales for problematic items and prompts the researcher to scrutinize these items prior to removal. As postulated by Azrillah et al. (2013), the effectiveness of item removal can be detected from five indicators: item reliability, item separation, person separation, item infit MNSQ SD, and person infit MNSQ SD. An effective item removal should be reflected in increased item reliability, item separation, and person separation, but decreased item and person infit MNSQ SD. In the current study, these indicators are presented in Table 3. The removal of Com05 and Com06 was found effective as it satisfies the effectiveness indicators. Com05 and Com06 reported slight increase in item and person reliability and slight decrease in item infit MNSQ SD. In Rasch, the fit statistics inform on the fitness of data to the model.

3.3 Local Item Dependency Analysis

Local item dependency can be detected via the value of the largest residual correlation, with a cut-off value of 0.7 (Yen 1993; Linacre 2011). Above that value, the paired items may have some duplicative features of each other, or they might be redundant. It also indicates that the respondents may perceive them as similar, thus should be considered to be combined, rephrased, or removed for better understanding among respondents.

Table 4 Summary of items with largest residual correlation in pilot test

	Correlation	Item code	MNSQ	Z-STD	PMC	Decision
1.	0.95	Con06	1.03	0.2	0.48	Retain
		Con07	0.94	-0.2	0.52	Remove
2.	0.88	DIL11	1.18	0.9	0.53	Remove
		DIL12	1.09	0.5	0.56	Retain
3.	0.87	Con07	0.94	-0.2	0.52	Retain
		Con08	1.21	1.0	0.52	Remove
4.	0.85	Con06	1.03	0.2	0.48	Retain
		Con08	1.21	1.0	0.52	Remove
5.	0.77	Con08	1.21	1.0	0.52	Remove
		Con09	1.11	0.6	0.51	Retain
6.	0.71	Con06	1.03	0.2	0.48	Retain
		Con09	1.11	0.6	0.51	Remove
7.	0.68	DIL02	0.92	-0.4	0.56	Retain
		Con05	0.81	-1.1	0.61	Retain

Source: Data collection by the researcher

Based on the results, there are six paired items which correlate above 0.7, as reported in Table 4. Thus, for each pair, one of the items should be retained, while another should be removed. Selection of retained items should be made based on their values of mean square and z-standard. Items with mean square and z-standard values approaching their ideal values of 1 and 0, respectively, should be retained (Azrillah et al. 2013; Bond and Fox 2007). Therefore, items Con06 and DIL 12 were retained, whereas Con07, Con08, Con09, and DIL11 were removed. Items Con06 and Con08 had thrice correlation beyond 0.7. Thus, the results were consistent to retain Con06 and remove Con08. As for DIL02 and Con06, the correlation is 0.68, very close to the cut-off value of 0.7. It was a sign that more than 50% of the respondents answered both questions similarly. However, both were retained as they measured different dimensions. Table 4 summarizes the results.

Another indicator for local item dependency is the logit values. Items with similar logit values mean that the items are measuring similar ability. In the Rasch model, each item should ideally measure different levels of abilities, and then the scale will not be lengthy (Azrillah et al. 2013). However, if the items originated from different dimensions, they should be retained. On the other hand, if the items originated from similar dimensions, selection should be made based on the values of mean square and z-standard. The closest to the expected values of mean square and z-standard should be retained (Linacre 2002). Table 5 shows the items with similar logit values and the decisions.

Based on Table 5, there are two pairs of items with 0.0 logit values: BoT02 and BoT05. BoT05 was suggested to be removed as the mean square and z-standard values were far from their ideal values of 1 and 0, respectively. Similarly, based on the mean square and z-standard, Con07 was also suggested to be retained as compared to Con08 though both had 0.0 logit values. However, Con07 had been

Table 5 Summary of items with similar logit values in pilot test

	Logit	Item code	MNSQ	z-standard	PMC	Decision
1.	0.0	BoT02	0.91	-0.4	0.52	Retain
		BoT05	0.85	-0.4	0.54	Remove
2.	0.0	Con07	0.94	-0.2	0.52	Retain
		Con08	1.21	1.0	0.52	Remove
3.	-0.1	DIL04	0.99	0.0	0.50	Retain
		DIL06	0.89	-0.5	0.52	Remove
4.	-0.17	Coo01	0.78	-0.1	0.51	Remove
		Coo03	0.88	-0.5	0.52	Retain
5.	-0.7	DIL03	0.65	-1.9	0.59	Remove
		DIL07	0.69	-1.6	0.58	Remove
		DIL12	1.09	0.5	0.56	Retain

Source: Data collection by the researcher

previously suggested for removal due to high correlation, above the cut-off value of 0.7 (Table 5). Thus, both Con07 and Con08 were suggested to be removed. Items DIL04 and DIL06 also had similar -0.10 logit values. However, DIL04 was retained because its values of mean square and z-standard were approaching the ideal values of 1 and 0. Meanwhile, three items, DIL03, DIL07, and DIL12, shared the logit value of -0.7. Based on the comparison of mean squares and z-standards, items DIL03 and DIL07 were removed. Only item DIL12 was retained. Finally, item Coo03 was suggested to be retained as compared to Coo01, though both shared the logit value of -0.17.

Prior to removal, Rasch prompts problematic items to be scrutinized (Bond and Fox 2007). As postulated by Azrilah et al. (2013), the effectiveness of item removal can be detected from five indicators: item reliability, item separation, person separation, item infit MNSQ SD, and person infit MNSQ SD. An effective item removal should be reflected in increased item reliability and person separation, but decreased item and person infit MNSQ SD. In the current study, as several indicators were found constant, Table 6 only reports on the item separation and item reliability. Based on the table, all items reported increased item reliability, which reflect the items' removal effectiveness.

4 Results and Discussion

Based on the results, there are 11 problematic items. Two items, Com05 and Com06, were considered misfit as they fall outside the acceptable ranges of point-measure correlation, mean square, and z-standard. Another four items, Con08, Con09, Con10, and DIL11, were suggested for removal as they produced high correlation which reflect on item redundancy. Apart from that, another seven items were suggested for removal due to similar logit values which depict that the items are

Table 6 Analysis on the effectiveness of removing dependent items

	Before removal		After removal	
	Item reliability	Item separation	Item reliability	Item separation
Con07			0.89	2.91
Con08			0.89	2.91
Con09			0.89	2.91
DIL03			0.89	2.91
DIL06	0.87	2.57	0.89	2.91
DIL07			0.89	2.91
DIL11			0.90	2.93
BoT05			0.89	2.91
Coo01			0.89	2.91

Source: Data collection by the researcher

measuring similar ability, which undesirably prolong the list of items. In the Rasch model, each item should ideally measure one ability (Azrilah et al. 2013). However, two items were consistently suggested for removal based on correlation analysis and item dependency analysis. Thus, a total number of 11 items were suggested for removal. Fortunately, Rasch is also capable of indicating the removal effectiveness. As postulated by Azrilah et al. (2013), the effectiveness of removal can be reflected from the increase in item separation and item reliability, as explained in Table 6.

Based on this study, the IQMS is proven as a reliable measurement scale to assess the application of Islamic values in the context of quality management. The scale can be used by the organizations to diagnose the level of value application, which can contribute to empirical evidence of the standard's effectiveness. Furthermore, policy makers can utilize the results to further design or formulate appropriate reforms to nurture the inculcation of values. As for the management of organizations, they can improve the application of values or plan toward it, as good values have been articulated as the push factor toward economic reconstruction. This can be evidenced from the success story of the Japanese recovery from the aftermath of World War II, which can be traced back from their innate positive cultural values topped up with the quality management knowledge transferred from the Western quality gurus during the 1950s and 1960s (Ishikawa 1985; Kehoe 1996). During the early 1980s, several books on management and organizations were published and turned out to be best sellers, disseminating the idea of cultural values' importance. Among them was *The Art of Japanese Management* by Pascal and Athos in 1981, *Corporate Cultures* by Deal and Kennedy in 1982, and *In Search of Excellence* by Peters and Waterman in 1982. These books have concluded on the importance of cultural values to determine the success of organizations, which had been approved by the Japanese success (Naceur 2005).

5 Conclusion

The article demonstrated an analysis on quality of the proposed psychometric properties via indicators of items' fitness as offered in the Rasch model. The psychometric properties are specifically developed for the purpose of measuring the application of Islamic values in organizations. The Rasch model provides empirical evidence which reflect on item quality, via three measures, item polarity analysis, fit statistics, and local item dependency, as discussed earlier in the article. Based on item polarity analysis, all items are valid. However, based on the fit statistics, two items were considered as misfit. Another four items were considered as redundant as they produced correlation above the maximum threshold. Meanwhile, seven items were considered as measuring similar ability. However, two items were found consistently problematic in the local item dependency analysis and similar logit values. Based on these interpretations, 11 items were found problematic and suggested for removal, as summarized in the Appendix. The removal was found effective in all items as the removal increases the item reliability and item separation.

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Appendix: Summary of Items and the Results

Code	Summary	Problem and indicator	Decision and justification
TF01	Advertisement matches actual specifications	–	Retain
TF02	Decisions consider public interest	–	Retain
TF03	Meet terms of contract	–	Retain
TF04	Permission to perform religious obligation	–	Retain
TF05	Recognition of quality enhancement	–	Retain
TF06	Allows staff to propose ideas	–	Retain
TF07	Equal training opportunity	–	Retain
TF08	Best worker awards	–	Retain
TF09	Prayer room for staff	–	Retain
DIL01	Prepare room for customer feedback	–	Retain
DIL02	Analyze customer feedback	–	Retain

(continued)

Code	Summary	Problem and indicator	Decision and justification
DIL03	Investigate non-compliance	Similar logit values indicating redundancy with DIL07 and DIL12	Remove; it increases item reliability
DIL04	Record non-compliance	–	Retain
DIL05	Implement PDCA (plan-do-check-action)	–	Retain
DIL06	Preventive measures	Similar logit values indicating redundancy with DIL04	Remove; it increases item reliability
DIL07	Corrective action plan	Similar logit values indicating redundancy with DIL03 and DIL12	Remove; it increases item reliability
DIL08	Risk management procedures	–	Retain
DIL09	Management review meetings	–	Retain
DIL10	Evaluate performance	–	Retain
DIL11	Design follow-up plans	Correlation above 0.7 indicating redundant items with DIL 12	Remove; it increases item reliability
DIL12	Implement follow-up plans	–	Retain
DIL13	Review work processes	–	Retain
BoT01	Factual-based decision-making	–	Retain
BoT02	Considers current capability	–	Retain
BoT03	Official info channel	–	Retain
BoT04	Transparent auditing	–	Retain
BoT05	Transparent audit report	Similar logit values indicating redundancy with BoT02	Remove; it increases item reliability
OtC01	Adoption of improved ways	–	Retain
OtC02	Adoption of new ways	–	Retain
OtC03	Training of new knowledge	–	Retain
OtC04	Benchmark for best practice	–	Retain
OtC05	Use customers' feedback to improve	–	Retain
VT01	Immediate response to complaints	–	Retain
VT02	Corrects non-compliance immediately	–	Retain

(continued)

Code	Summary	Problem and indicator	Decision and justification
VT03	Accomplishes work on time	–	Retain
VT04	Meetings start on time	–	Retain
VT05	Meetings end on time	–	Retain
Com01	Activities match documented procedures	–	Retain
Com02	Corrective measures of auditing	–	Retain
Com03	Dress code	–	Retain
Com04	Activities follow plans	–	Retain
Com05	Separate room prayers	Misfit items indicating it does not measure the similar trait	Remove; it increases item reliability
Com06	Separate work station	Misfit items indicating it does not measure the similar trait	Remove; it increases item reliability
Coo01	Work together	Similar logit values indicating redundancy with Coo03	Remove; it increases item reliability
Coo02	Superior-subordinate coop	–	Retain
Coo03	Treat each other well	–	Retain
Coo04	Prepares audit together	–	Retain
Coo05	Cooperate across department	–	Retain
Con01	Open day	–	Retain
Con02	Special promotion	–	Retain
Con03	Review of strategic planning	–	Retain
Con04	Regular training	–	Retain
Con05	Customer satisfaction survey	–	Retain
Con06	Internal audit	–	Retain
Con07	Internal audit report	Correlation above 0.7 indicating redundancy with item Con06	Remove; it increases item reliability
Con08	External audit	Correlation above 0.7 indicating redundancy with item Con06	Remove; it increases item reliability
Con09	External audit report	Correlation above 0.7 indicating redundancy with Con06	Remove; it increases item reliability
Con10	TNA	–	Retain
Con11	Performance appraisal	–	Retain
Con12	Doa (<i>Supplication</i>)	–	Retain

Source: Author's data collection

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Coordination of Market Behaviour by Joint Venture Parent Companies and the Presumption of Restriction of Competition



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Abstract The article deals with the problem of coordination of market behaviour between the joint venture and its parent companies from the point of view of antitrust rules. The purpose of the article is to examine whether it can be assumed that the presence of joint venture (JV) parents on the same product and geographic relevant market distorts competition on that market. Using the example of rolled asphalt market in Germany, the article indicates that this approach is not appropriate because it focuses solely on the problem of the market structure, though the coordination of market behaviour is not a structural problem. The analysis of coordination of market behaviour between the joint venture and its parent companies should be based on the provisions on anticompetitive agreements. The article shows that the expected coordination between the JV and its parent companies or between the parents themselves cannot be considered as an axiom and it cannot be the basis for prohibiting the creation of JV or for forcing structural changes in the companies.

Keywords Antitrust · Competition policy · Coordination · Joint venture

1 Introduction

The German Competition Authority (Bundeskartellamt—BKA) has published a Report on the functioning of joint ventures on the asphalt rolling market (BKA 2012, 2015). It was based on the study of the structure of the entire rolled asphalt industry and the structure of relationships between various companies (mainly joint ventures and their parent companies on the German market). BKA formulated the presumption that the parent company's activities on the joint venture's market generate a risk of distortion of competition (BKA 2015). The results of the sector

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inquiry showed that the rolled asphalt market has a significant number of joint ventures. Of the 130 JVs operating on the relevant market, as many as 104 were qualified as companies that could infringe competition law. The main reason for the potential infringement was the ownership relationship between the parent companies and joint ventures (JV). In order to eliminate corporate relations, these companies were subjected to unbundling procedures. Such a procedure is a tool to eliminate the risk of distortion of competition. It was initiated on the basis of the Act against Restraints of Competition 2013 (32), which allows to oblige undertakings or associations of undertakings to terminate an infringement of this provision or of Articles 101 or 102 of the Treaty of the Functioning of the European Union 2007 (TFEU). This provision provides for the possibility of structural and behavioural measures to cease distortion of competition. Structural measures modify the allocation of property rights and include the sale of an enterprise in whole or in part. All measures other than divestiture may be considered unstructural, but impose restrictions on the property rights of the merging parties, and their purpose is to guarantee a level playing field for all competitors (Paas 2006). The structural measures used by BKA based on the JV ownership division were to ensure the creation of conditions for more effective competition on the relevant market.

Structural measures applied on the rolled asphalt market in Germany included transfer of shares to partners or third parties, merger of a former joint venture with a subsidiary of a shareholder, continuation of the activities of former JV as a 100% subsidiary, transfer of assets from JV to their partner companies or their sale to third parties and more often the commencement of liquidation of JV (BKA 2015). In addition to the JV, numerous contractual and personal relationships have been eliminated. This has had an impact on the relationship between the JV and its partners, between partners and between partners and third parties (BKA 2015). As a result of the division of over 40 JVs, personal ties were eliminated, and for over 70 JVs, the information flow between competitors, mainly between JV and their partners, was completely cut off (BKA 2015). Structural measures applied have limited the flow of information from the JV to individual competing shareholders (BKA 2015).

Often, parent companies of a JV were involved in several other JVs which increased the risk of coordination. Each of the JVs was so important to the shareholders (their income and profits) that it was economically viable for the JVs to eliminate competition, as well as feasible due to their presence in the market. This was due to the actual market presence of the participating companies and the amount of competing partners in the JV (BKA 2015). Often, JV partners operating on the JV market have further minority interests in other competing JVs. For the sake of simplicity, only those partner companies operating on the relevant JV market that were at least indirectly controlled by them are included. BKA showed that even JVs subject to the sole control of a shareholder holding shares in other JVs were a problem. It is often the case that JVs are indeed a kind of platform for agreeing market behaviour by parent companies, regardless of whether they are full-function (concentrative) or non-full-function (coordinative) JVs.

The purpose of this chapter is to investigate whether deconcentration is an appropriate antitrust tool as its economic effectiveness is questionable. There are no studies on antitrust problems of deconcentration of JVs in the literature. The available publications focus either on the general antitrust issues of JV operations (Morais 2015; Kokkoris and Shelansky 2014; Baas 2015) or on merger remedies (Paas 2006; Davies and Lyons 2007; Cook et al. 2017; Polemis and Oikonomou 2018). The study is based on the analysis of documents and case studies and is an attempt to show the essence of the deconcentration of companies from the antitrust point of view. It is widely accepted that the presence of the JV's shareholders in the same relevant product and geographic market will distort competition. This assumption was made by BKA (2015) on the rolled asphalt market in Germany. However, it raises legitimate doubts as it focuses only on the problem of the market structure and, meanwhile, the coordination of market behaviour is not a structural problem and is examined on the basis of the provisions on anticompetitive agreements. The chapter shows that the expected coordination between the JV and its shareholders or between the shareholders themselves cannot be the basis for prohibiting the creation of JVs or forcing unbundling of companies. The study is divided into six parts. The first part discusses the division of JVs into concentrative and coordinative and then the different legal regime to which they are subject. Based on the decisional practice of antitrust authorities (European Commission and BKA), the risk of agreeing market strategies from competition authorities' point of view was presented. The final part of the study provides a critical analysis of the assessment of potential anticompetitive behaviour by the parent companies of the JV.

2 Dichotomy of JV in Antitrust Law

Joint venture is a kind of agreement in which at least two parties undertake jointly defined economic activities they would not be able to carry out individually. A joint venture can also be characterized as a commercial agreement between two or more enterprises, aimed at creating a new enterprise by contributing shares and then distributing profits (losses), costs and control (Skoczny 2005; Kokkoris and Shelansky 2014; Morais 2015).

It can therefore be assumed that the joint venture is a form of economic cooperation, the construction of which is based on elements of cooperation (coordination) and concentration. On the one hand, it is shaped like an agreement defining the terms of cooperation, and on the other it can be a form of concentration. In the USA, a joint venture is understood as a relationship between two or more people who, as co-owners of a joint venture, enter into various transactions on the market. Generally, the term joint venture is used to refer to a company controlled by at least two parent companies (FTC Antitrust Guidelines for Collaborations Among Competitors 2000).

The European Commission (EC) has already set up a concentrative and cooperative joint venture in the first Regulation on the control of concentrations. A joint

venture whose object or effect was to coordinate the competitive behaviour of parent companies was defined as coordinative and assessed on the same provisions as an anticompetitive agreement. This is applied to all cooperative joint enterprises regardless of their legal and organizational structure, in particular regardless of their legal and economic independence (case *Air France/KLM/Alitalia/Delta* 2015). In turn, concentration processes causing changes in the market structure and in the structure of companies control were subject to the merger legal regime. Such a joint venture within the meaning of the Council Regulation (1989) was understood as a merger if it was jointly controlled by at least two independent parent companies (Kostecka-Jurczyk 2017).

The division of a concentrative and cooperative joint venture was replaced by a distinction between a full-function and non-full-function joint venture in connection with the merger control reform in 1997. In the Council Regulation (EC) on the control of concentrations between undertakings, 2004 (Regulation 139/2004), there is a division of JV into those that are a form of concentration between enterprises and those that are a form of cooperation. The creation of a joint venture performing on a lasting basis all the functions of an autonomous economic entity is a concentration within the meaning of Article 3(4) Regulation 139/2004. A full-function joint venture is a form of concentration, as is a merger or acquisition. The non-full-function joint venture is currently outside the scope of Regulation 139/2004 and is controlled on the basis of Article 101(1) TFEU concerning the prohibition of concluding restrictive agreements. To be considered as a full-function JV, it must have permanently adequate resources and itself must perform the same functions as other companies operating on the same relevant market.

Determining the full range of functions is mainly based on the following criteria, which must be met cumulatively: operational autonomy, resources, functions it performs and the degree to which the joint venture is dependent on parent companies (Commission Consolidated Jurisdictional Notice, 2008). A full-function joint venture that is a form of concentration is assessed not only in the light of merger provisions but also in the light of Article 101(1) TFEU if its purpose or effect is to coordinate the competitive behaviour of independent companies. The criterion of 'purpose or effect' should be understood as in the case of Art. 101 TFEU (case *T-Mobile Netherlands BV v Raad van bestuur van de Nederlandse Mededingingsautoriteit*, 2009). Coordination will be the goal of setting up a joint venture if parent companies tend to agree market behaviour outside the joint venture. Coordination as an effect will occur if the creation of a joint venture is not intended to coordinate between parent companies, but this effect is likely. Determining whether coordination will be an object or effect requires to answer the question whether, through a joint venture, parent companies will coordinate their future competitive behaviour outside the joint venture market (Schulte 2010).

Establishment of a joint venture whose aim or effect is to coordinate competitive behaviour within the meaning of Article 2(4) Regulation 139/04 results in a restriction of competition. In some decisions, the Commission explicitly indicated that the term 'object' means the subjective intention of the parties to the concentration to

create a joint venture to coordinate market strategies (Case Vodafone, Vivendi, Canal+ 2000). A joint venture can serve as a platform for coordination between parent companies. Even if this is not the case, concentration in the form of a joint venture may still result in coordinating the behaviour of parent companies. Therefore, if the purpose of the joint venture is not to coordinate the competitive behaviour of parent companies on the relevant market, then it cannot be excluded that such coordination will ultimately occur. However, there must be some causality between the creation and coordination of competitive behaviour of parent companies, in the absence of which the joint venture cannot be considered to have anticompetitive effects. For example, in the case @Home Benelux B.V. (1998), the EU Commission stated that in all the markets examined, despite the existence of a likelihood of coordination, there was no significant restriction of competition. JV is by nature conducive to coordination, and therefore it is subject to double control a) based on regulations on control of concentration between undertakings and b) based on provisions regarding the conclusion of anticompetitive agreements.

3 Coordination between JV and its Parents in the European Commission Decisions

In the EU Commission's opinion, restrictions of competition in the relations between the parent companies and the joint venture always affect the mutual relations between the parent companies themselves (case LSG Lufthansa Service Holding/ Gate Gourmet Switzerland 2006). Agreements between parent companies and a joint venture have a specific meaning when the joint venture is a full-function company, and between them and at least one parent company, there are competitive relationships or connections in the area of purchasing or distribution. Restrictions within the meaning of Article 101(1) TFEU in relation between parent companies and the joint venture most often manifest in the geographical and product division of the market or in the division of customers (Pohlmann 1999; Pohlmann 2003).

The likelihood of coordination will be examined from the point of view of the possibilities for parent companies to coordinate using the joint venture. The purpose of coordination will then be to eliminate competition between these companies. Such a possibility exists if on the market of the joint venture or at a higher (lower) level, or on the neighbouring market, two (or more) mother companies are present in a considerable extend. Firstly, it is therefore necessary to examine the structure of the market, and, secondly, it must be ascertained whether the presence of parent companies on the market of the joint venture is significant and whether it is simultaneous (occurring at the same time).

The creation of a joint venture generates changes in the structure of the market that can encourage mother companies to take up competition-restricting practices and cause spillover effects. These effects are a manifestation of oligopolistic behaviour on the market. The oligopolistic structure implies strategic actions between a

small group of enterprises which in their commercial practices take into account competitors' strategies. These companies generally do not take effective competitive strategies without taking into account the behaviour of competitors. The spillover effects are a key problem in assessing concentration in the light of Article 2(3) and 2(4) Regulation 139/04 and were the premise for the construction of these provisions.

In practice, two types of such spillover effects are distinguished: coordinated and uncoordinated (unilateral). Both types of these effects differ as to how competitors' behaviour in the relevant market is taken into account. With uncoordinated effects (individual shaping of market behaviour), enterprises recognize competitors' behaviours as data that they cannot influence. However, the structure of the market may be conducive to raising prices above the level set by the market.

On the other hand, coordinated effects mean that companies operate with the intention of influencing competitors' strategies. They include the impact of the creation of a joint venture on the competitive strategies of the parent companies, which refers to the fact that, through the joint venture, parent companies will harmonize their market strategies (they will behave in the same way).

Among coordinated effects, direct and indirect effects can be distinguished. The first arise when the parent companies of a joint venture operate in the same market as the joint venture. The second ones are created at a higher or lower level of the relevant market. Horizontal concentrations may change the structure of the market in such a way that the intensity of competition between transaction participants will be reduced. There is then a risk that companies will be able to behave in a coordinated manner without concluding an agreement contrary to Article 101(1) TFEU. Such coordination may relate, for example, to price levels, production volumes, productivity, market sharing or contracts resulting from tenders (Ivaldi et al. 2003). In the guidelines on horizontal concentrations, the Commission indicates that the structure of certain markets may foster price coordination. Enterprises will consider it possible, economically justified and even preferred to increase prices. Coordinated effects arise in particular as a result of the creation or strengthening of a collective dominant position after concentration (Dethmers 2005). They may also occur in connection with the inclusion of an explicit clause in the founding agreement of the joint venture (which is unlikely) or may result from links that arise between the parents and the joint venture conducive to the coordination of their market behaviour. They are a consequence of the impact of the joint venture's activities on its parent companies. Thus, coordinated effects can be understood as the spectrum of interaction between parent companies and joint venture.

In a market in which two parent companies of a joint venture offer the same products or services as a joint venture, each of them is willing to adapt its pricing policy to the joint venture policy in order to maximize its benefits. This effect is a rational and predictable strategy for each parent company of the joint venture. It coordinates their competitive behaviour, although there is no communication between them (Massey and McDowell 2010). In this situation, the joint venture almost inevitably leads to a reduction in price competition between parent companies. However, this is not the same as oligopolistic interdependence, which results from the structure of the market and not from the creation of a joint venture (Temple

Lang Temple 1999). The creation of a joint venture may foster the coordination of market behaviour by parent companies. Such coordination also occurs in the absence of communication between them. However, it is necessary to check whether the mere presence of a joint venture on the market affects the behaviour of one (or more) parent companies. If the answer is in the affirmative, you should check whether this behaviour creates a risk of restricting competition. It should not be forgotten that coordinated effects do not have to be based on agreements related to the creation of a joint company within the cartel, but as in an oligopoly, they can be based only on adaptation of strategies that do not require mutual communication (Eiβler 2010; Staniec 2020). They are manifested in mutual adjustment of prices and other trading strategies.

4 Market for Coordination of Commercial Behaviour

From the point of view of coordination, only those markets where at least two parent companies which are competitors are present are of the key importance. In addition, it must be a joint venture market, a lower or higher level of that market or the neighbouring market closely related to it (case Talia/Telenor/Schibsted 1998). Markets where only one parent company and joint venture are present and coordination between them does not infringe Article 101(1) TFEU are not of interest to the Commission. If the parent company withdraws from the market due to entrusting his activities to a joint venture, then such a market is not considered a coordination market. In addition, companies withdrawing from the market will not be considered as potential competitors. Thus, the coordination market includes a market in which at least two parent companies are current or potential competitors.

Particular incentives for coordination are emerging in markets that represent a higher or lower level in relation to the joint venture market. The presence of parent companies in the upstream market relative to the joint venture market increases the likelihood of coordinating behaviour between parent companies because they can agree (coordinate) their offers on that market. However, if the offer is directed to clients other than the joint venture, there is no risk of coordination. The same applies if the joint venture is not in any way connected to the parent company on a market where it has the component it needs, there are independent distribution channels on that market and the parents' activities involve a different production process and different goal or are on the other geographical area (case Bertelsmann/Planeta/Boll Spain 1999; Bertelsmann/Planeta/NEB 2000).

If the parent companies operate on a downstream market in relation to the joint venture market, they may use the prices of intermediates (obtained from the joint venture) to coordinate the prices of the final products (case Ericsson/Nokia/Psion 1998). First of all, this applies when they are able to adjust a significant part of the cost of the products they offer. Even in this case, however, the risk of coordination is small if the parent companies, regardless of the joint venture, are vertically integrated. This applies when the share of the costs of intermediates in the total costs of

products of parent companies is small, especially when raising prices for intermediates would not be economically justified, as the demand for them would be limited.

5 The Concept of ‘Expected’ Coordination of Parent Companies through JV

A causal link must be established to confirm the distortion of competition resulting from the creation of the JV. It is necessary to check the possibilities of agreement for the parent companies of the joint venture after its creation (Schulte 2010). To assess the ability of parent companies to coordinate market behaviour under Article 101 (1) TFEU, the Commission would have to prove the causal link between the creation of the joint venture and the coordination of the competitive behaviour of the parent companies. However, BKA’s concept of expecting anticompetitive behaviour ignores the causal link between anticompetitive behaviour by partners and the creation of a JV (BKA 2015). Based on this concept, companies in the rolled asphalt market were forced to implement structural measures to eliminate potential distortions of competition.

The belief in the need to unbundling JVs operating on the rolled asphalt market resulted from BKA’s concept of expecting that the parent company would agree market behaviour in its product and geographic market. However, this concept raises significant doubts. It was already used in the *Ostfleisch* judgment by the German Federal Court of Justice (2001), in which he considered that the continuation of the parent company’s business as a competitor of JV allows to make a presumption of cooperation of parent companies, since they generally seek to agree a commercial policy or refrain from mutual competition (case *Ostfleisch* 2001). Due to the continuation of business activity by the parent companies, a restriction of competition in the markets in which they conduct business activity is highly probable (it can even be expected). However, no causal link was found between the creation of the JV and coordination. The ban on the creation of the JV was based only on the presumption of coordination.

The discussed concept is based on the assumption that the proprietary and economic links between parent companies and their daughter company alone allow the presumption of coordination of market behaviour of parents. The problem is that the assumption of coordination that is the basis for the use of structural measures is not understood as a circumstantial evidence but as an axiom. The principle of legal certainty and trust in public authorities requires that the ‘expectation’ of certain behaviours be confirmed in the course of proceedings by assessment of the economic relationships between companies and their effects (case *Nord-KS/Xella* 2008).

In the rolled asphalt sector inquiry, BKA pointed out that a violation of competition law may occur if a parent company and another parent are active in the joint venture market (product and geographic), even if they do not have a dominant

position. In such a case, a broad analysis of the legal and actual possibilities of coordinate market strategies should be undertaken to make a distinction between the possibility of minority shareholders being able to exert influence over other parents in order to achieve their economic goals (BKA 2012).

BKA also included the cases where there was a risk of distortion of competition when the parents operate in a close geographical market in relation to the joint venture. The admissibility of such a situation should be determined by the strength of potential competitive relationships between the competitor and the joint venture. If a parent is able to supply his goods on the geographical market of a joint venture, at best it can be assumed that he voluntarily or by agreement refrains from doing so. However, if it has entered into an agreement with another parent or JV not to sell its products on the joint venture's market, then the agreement constitutes a restriction of competition. The presumption of coordination principle which is the basis for interference in the ownership structure of companies by competition authorities cannot be used here (BKA 2015).

The presumption of coordination of market behaviour has also been extended to minority shareholders. It is assumed that minority shareholders may weaken competition because the JV may take into account the interests of minority shareholders. However, this depends on the size of the market share and market power of the companies participating in the JV.

A joint venture that does not own shares of its own shareholder has no incentive to take into account the interests of shareholders. However, if the joint venture takes into account guidelines regarding the interests of parents, it will not violate competition law if such guidelines are the result of corporate governance. If such opportunities to influence the JV arise solely from the fact of holding shares, there may be growing concerns that the parent company dominates the company in which it holds shares and thereby itself undertakes the activities of minority shareholders in the joint venture market. In this case, the actual influence on the situation of the company participating in the JV must be proven, which allows the company with a minority share to determine the commercial policy of the participating companies.

Undoubtedly, companies on the oligopolistic market collectively are interested in coordinating their activities to reduce the volume of supply and raise prices to a level ensuring expected profits. The economic literature well discusses the reasons why companies may find such coordination difficult. The most common reason is that companies have strong incentives to increase their own (individual) profits, if the competitors' behaviour allows it (Albaeck et al. 2010). Therefore, it cannot be assumed that incentives for coordination always exist. However, such actions must be proved.

6 The Nord-KS Case and ‘Expected’ Anticompetitive Behaviour

The Nord-KS case is interesting because in this case the commercial policy of Hansa and Xella was discussed at intervals of 2 weeks in the presence of a representative of each of them. In this regard, BKA stated that the partners implemented their own commercial policy and agreed it with the other companies present on the joint venture market.

BKA expressed concerns that Xella and Hansa (the parent company of the joint venture) coordinated their market behaviour but was unable to prove them. For this reason, he decided to examine the coordination of behaviour of parent companies including the structure of companies, strategic interests of Xella to ensure the market position of Xella, the economic importance of Nord-KS for Xella and the scope of agreements already practised. Ultimately, however, he stated that the organizational structure of the companies and the exchange of information in the company’s governing bodies could have favoured the reconciliation of market behaviour by parent companies. A distinction must be made between the agreement entered into by the parent companies and the structural aspects of the joint venture’s infringement of competition law. Interference in the structure of the company or parents is possible, however, only if the violation of competition law results from this structure.

BKA found that the agreement of the joint venture’s pricing strategies by parents as in the Nord-KS case resulted in the reconciliation of the market behaviour of parent companies. However, this approach raises doubts because Xella, as a minority shareholder of Nord-KS, pursued her own economic goals not only in relation to the joint venture but also to parents. Prediction of coordination under merger control rules should be supported by an appropriate analysis of the economic conditions prevailing on the relevant market. It must also be proved that the purpose or effect of the joint venture which is to distort competition. Coordination that has not been proven cannot be penalized (Apostolakis 2017). The very fact that market conditions favour anticompetitive behaviour cannot conclude that such opportunities will be used by those participating in the JV. The incentives to conclude agreements between the parent companies of the joint venture do not depend only on the size of the mother company’s shares but on its individual situation. For example, companies that belong to a joint consortium or have a common market information system are more at risk of coordination.

Such coordination may apply to both future behaviour, which is mainly aimed at reducing strategic uncertainty, and current behaviour, which is particularly important for the implementation of the coordination agreement at a given moment and in the future. The expectation of a restriction of competition is only a circumstantial indication of the restriction of competition and must be proven. In the Nord-KS judgment, the court pointed out that the very purpose and the fact that the parent company was operating on the JV market indicate that it is expected to limit rivalry. Competition law requires gathering evidence, but in the Ostfleisch case (2001), the

full evidence could not be provided. The intention of parent companies was to set up a joint venture; however, the court prohibited establishing it based only on the presumption (expectation) that competition would be distorted after the creation of the JV. In this case, the mere likelihood of coordination led to the decision prohibiting the creation of the joint venture.

It should be noted that the antitrust authorities also bear the burden of proof in the event of a potential breach of competition law in the future. If the existing JV has not infringed competition law in the past, the mere prognosis that it may do so in the future cannot lead to negative effects for the company. Circumstances that only facilitate the violation of competition law do not allow us to forecast (assume) that there will be a violation of competition law in the future. This approach does not serve the legal certainty of enterprises. Antitrust authorities must show that there is coordination and cannot base their decisions solely on the presumption of potential coordination.

7 Conclusion

Joint ventures are a form of cooperation in many sectors of the economy. They also favour the coordination of market behaviour of parent companies and thus may distort effective competition on the market. Ownership relationships are very complex in many markets. The shareholders of a given JV may have shares in other companies operating on the same product and geographic relevant market or on a higher (or lower) market level. JV may also own shares of their shareholders. Such complex relationships can contribute to anticompetitive behaviour, e.g. price agreements, or distort other parameters of competition. In the case of JVs that are a form of concentration, the risk of restriction of competition must be examined *ex ante* in the course of the concentration procedure, and, possibly, the creation of a JV should be prohibited. However, in the case of a JV which is not a form of concentration but which is a form of cooperation agreement, the risk of distortion of competition is examined *ex post*. In none of these cases, structural measures are not applied because either the JV is not created or it is prosecuted as an anticompetitive agreement. On the rolled asphalt market in Germany, already operating JVs have been subjected to unbundling procedures due to the risk of coordination of market behaviour between companies operating on this market. The purpose of this was to break down complicated ownership links between companies that are favourable to agree trading strategies (prices, supply volumes, etc.). The assumption about the risk of such arrangements was based on potential coordination possibilities, which, however, has not been proven. The unbundling of companies was preventive, although it should be emphasized that the use of structural measures must be justified. One cannot block the development of companies based solely on the forecast of their possible market behaviour. There must be a causal link between the coordination and the creation of the JV. The expectation that companies will coordinate their market strategies can in no way justify the application of structural measures, including the

division of companies. Potential coordination options should be investigated in the course of concentration proceedings or demonstrated in other proceedings based on the provisions on anticompetitive agreements. There are therefore grounds to consider that the structural measures applied in the presented cases are a manifestation of too far-reaching interference by the antitrust authority in the activities of JV.

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Management Control as an Effective Instrument in Implementation of the Social Program



Venelin Terziev

Abstract Programmes are combination of actions, specification by time-terms and executors and are directed towards achieving one or several goals. Thus, from program-targeting management's point of view, programming is to define the expedience with the choice of one or another approach for maintaining the directions. It ensures the mechanism that allows finding the combination of circumstances for the complete satisfaction of social needs within the frame of the limited budget resources. In this sense, programming makes possible the elaboration of alternative options for taking optimal decision managing the social processes and resources for building and maintaining of expedient social policies and their carrying to the social environment factors dynamic changes. The article focuses and analyses management control as an effective instrument in implementation of the social program.

Keywords Control · Management · Social program · Social programming · Functions of management

1 Introduction

The programming, as grounds of management in the public sector, and in particular of the management of the state resources, is an intermediate stage between planning and budgeting at implementing the state's social policy. The reason for social programming is set in the very nature of planning as type of prognosis. It, the

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planning, includes in itself the activities of distribution of resources, adaptation to the external environment, the internal coordination and the organization strategic cooperation. Namely, on the grounds of the continuous planning horizon approach, the future actions connected with the state social policy are prognosticated, and balance between the long-term priorities and the short-term requirements and expectations of society from state social policy is ensured. In other words, planning is directly connected with drawing programmes. More, the programmes appear to be the connecting section between the mission, the goals and the plans. Through them, the goals are bound to the resources, reflecting the whole potential for achieving the set goals (material, financial, human, information resources).

The result of the planning process is the programme directions of the separate ministries and administrations that annually give the criteria, goals, priorities and the medium-long financial frame that are base for the programmes' effective management. All elaborated plans, financially bound by programmes and guaranteeing the programme goals' implementation in the social field, are synthesized in the ministries' and administrations' programme directions (Kyriakopoulos et al. 2020; Terziev and Kanev 2019). This means that the programme directions are grounds for realizing the budgeting as manifestation of one of the most distributed methods of coordinating the social plan implementation and the resources.

2 The Place of Programming in the State's Social Policy

Programmes are combination of actions, specification by time-terms and executors and are directed towards achieving one or several goals (Terziev 2020a). Thus, from program-targeting management's point of view, programming is to define the expedience with the choice of one or another approach for maintaining the directions. It ensures the mechanism that allows finding the combination of circumstances for the complete satisfaction of social needs within the frame of the limited budget resources. In this sense, programming makes possible the elaboration of alternative options for taking optimal decision managing the social processes and resources for building and maintaining of expedient social policies and their carrying to the social environment factors dynamic changes. And this is in the base of the so-called designed management, which plays the connecting role between the resource potential and the goals and tasks of social policy. On one hand, design management is connected with the concrete factors and conditions for achieving the final goals, giving answer to the questions what is. On the other, it is a model synthesizing in itself the various sides of social processes' management, while this way it makes it possible to get a summarized view for the social policy. Thus elaborating programmes through design, various connections and subordinations of social processes' management are embraced, which wouldn't be defined at other circumstances. Each part of the projects is bound to the budget limitations. From here, the programmes are reviewed as an integrated plan of using the resources for social activities, conformed to the occurred changes in the social environment. This, and

the circumstance that alternative programmes' elaboration is based on the variable costs, without their precision being necessary, makes programming a necessary phase of the social processes' programme-targeted management. System analysis of the missions, goals and tasks of social policy is accepted as advantage at this intermediate stage between planning and budgeting. The alternative approach at choosing methods for implementing the social policies is in the base of the effective distribution of the resources for the execution of various assignments and the related time and expenses (Terziev 2020a, b).

The terminological polysemy with the defining of the programmes makes impression, which leads to difficulties in the political and management activity (Terziev 2020b). The attempts to get out of that situation at legislative level, to give a precise meaning/definition of the term programme legally speaking, are well known. In one of the first attempts like that undertaken by the US congress in 1975, in the law For the State Economy and the Reform of Expenses, the programme is defined as grounds for the budgetary direction of the state authorities' activity. In other words, the established in practice type (aspect) interpretation of the term is legally shaped. While scientists debate, the lawmakers, using their works, give interpretation of the terms for particular circumstances. Despite that, the issue with the term programme requires further review and general solution. Said in other words, the answer is to be looked for not in the sequence of terms placed in a row, but in the summary of aspect interpretations, in the logic of common essence qualities.

Taking into consideration the expressed interpretations, without pretending for final editing, the programme could be defined as dynamic, structured image and way of acting (fixed in certain symbolic systems), created for coordinated interaction by the subjects of activity for purposeful impact upon a subject of that activity with the help of bound resources, executors and time-terms for realization of a complex of tasks and actions. From social processes' point of view, social programmes might be defined as dynamic structured image and way of acting (fixed in the programme's text), created for coordinated interaction by the subjects of power, directed towards solving of socially significant problems with the help of bound resources, executors and time-terms for realization of a complex of tasks and actions. The way of action and the connected defined approach appear to be of key significance in the given definition. Before undertaking one or another practice action, the subject mentally constructs their image *modus vivendi*. This complicated mental process is based on the necessity and the possibility for satisfying a necessity that has significant importance for the subject, for solving problems and for result of the undertaken actions that could be suggested (Terziev 2020a).

In its shape regarding the current activities, the programme answers the question "What to be done?", but the answer of the question is inevitably connected with the other one "How to do it?". Defining the way of the forthcoming activity "*modus operandi*", the choice and the order of use are kind of complex of means for getting the desired result. These means might already actually exist or their creating to be forthcoming. In any case, they are preliminary selected and arranged in a certain structure and sequence (logical and temporal). Here, also the structure and sequence of operations of use of these means are to be made, and, respectively, the program's

authors' and executors' efforts. In the process of implementation, of single elements as well as the whole structure of the programme, an action within the given property might be reviewed, corrected, modified and terminated. More, integral programmes that realize goals, which are not within the intentions of the initial participants, might be drawn from the programme for behaviour and interaction among the single subjects.

And not the least, the term programme expresses one of the most important characteristics of human activity, namely, being ahead of any actions by their mental form. The programme appears to be a special product of individual and/or collective mental activity directed towards practice and manifests as family category for very special/private constructions. A particular model for purposeful actions or a concept for social development of the region (district or municipality), target programmes for population's social protection, and complex employment programme are created. Depending on the priorities decomposition's phase, the following stages of elaborating programmes could be defined (Terziev 2020a, b):

- At the first level, basic programmes that reflect the goals and tasks in social policies in compliance with the long-term development goals are elaborated. Each basic programme contains the programme goals, the organizational structures that participate in the programme, the responsibility for the programme's implementation, the external factors that could influence the programme's goals' achievement, the necessary information sources and the 3-year budget prognosis by departmental and administering paragraphs of the programme.
- At the second level, the programmes, where the corresponding components are identified by types of social policies, are elaborated.
- At the third level, the definition of the sub-programmes as specification of the programmes by structures is done.
- At the fourth level, the programme elements that possess relative autonomy and allow giving value, assessing and separating distribution of resources and reflecting on the social potential are defined.
- At the fifth level, the programme sub-elements are differentiated, as detailing the programme elements by priority operations.

The programmes' practical realization at each of the pointed levels is not deprived of some disadvantages. Quite often, programmes' elaboration is accompanied by conflict of interests between the bodies of programming and budgeting. The lack of coordination between them, the lack of clear rules and procedures for defining the financial quotas by programmes, could bring in question the objectiveness and transparency of programmes' financial bond within the financial limitations. More, this might deprive them of reality and threaten their feasibility because of resource insecurity. This is the reason for looking and giving meaning to the approaches for defining criteria and indicators for effective programme activity and management impact on society through programming (Terziev 2020a).

3 Management Control in the Social Programme Implementation

The evolution of human society accepts the objective need of control. Its eventful history proves its significance as necessary attribute of social environment. The occurrence of control is connected with the first days of human consciousness. Its development and improvement are engaged with the human genius's achievements in social progress. Because of that fact, it is scientifically grounded the essence of control to be given meaning to and be displayed within the natural environment of social surrounding, which develops and enriches certain forms of manifestation. The essence of control is expression of the most important and significant side that defines the interior relative sustainability and depth of processes, phenomena and relations, manifested through the forms and methods of impact.

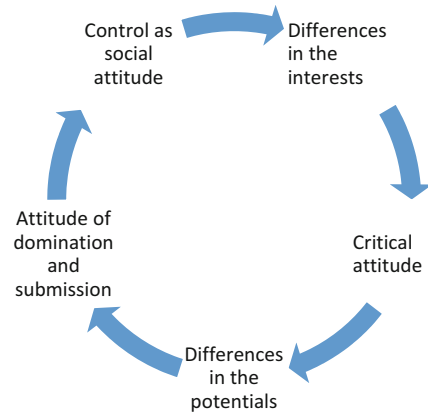
The inside side, logics of ongoing processes, the sustainable characteristics of social attitude are missing in the exposed other opinions, because control reveals before the institution of the state and its forms of governing, before the formed structures, systems and functions in them.

Two statements about control that express its possibility to be form of social attitude and as function of management are chosen for the most complete and thorough clearing of the studied topic (Terziev et al. 2020c) and, from there, for satisfying the preset goals. Human society accepts the objective need of control since the very beginning of its conscious progress. It introduces it and expresses it as attitude of the collective body, of the group of people towards the behaviour and individual capabilities of the single members of society to exactly meet the requirements of the adopted rules for equal participation at creating and using material wealth. Yet in this authentic and primitive expression of social attitude, two sides outline—subject in the person of the collective body and object—the attitude of single individuals towards the method of production and distribution. Control preserves its essential characteristics as form of social attitude bound to a particularly grounded criticism in the next phases of social development. Regarding giving meaning to and positioning control as special form that reflects social attitude, we accept as most complete the statement that control is a critical social attitude grounded on the socially significant subordination-domination-submission, purposely engaged with limiting the freedom of a group of social subjects, with view to realizing the interests of another one or of another group of social subjects.

Complicating control as social attitude with certain criticism (Terziev et al. 2020c) is connected with quality changes in the process of changing the method of production and distribution of public wealth. In the complicating social relations in the later phases of human society development, sharper and sharper the trend of individualization of the subject of control and its turning into function of the specially established institutions expresses. The ruling system forms its own apparatus and specifies its functionality depending on the interests for domination.

Control as socially balanced form that expresses the attitude of domination and submission predetermines the possibilities of the controlling one to limit the

Fig. 1 Control as social attitude. Source: Author



behaviour of the controlled one and to force him to observe certain norms. In that sense, the controlling one dominates over the controlled one, limiting his freedom in the name of realizing his own interest. The objective differences in the social subjects' potential found in their basic characteristics contain preconditions for establishing that power (Morgenthau 1960) (Fig. 1).

Each economic system could be reviewed as combination of interrelated production processes that comprise separate operations, where certain subjects of labour are transformed into utility values (Terziev et al. 2020c). The unity of processes and the operations forming them is organized in production technological expedience of proved necessity and logical sequence of the connections between them. The fact that the economic system is modelled by processes and operations—a particular expression of premeditated human activity, given meaning to by relations of personalities and their formations—defines it as social organizational structure with production-functional purpose. The central problem of the social organization's analysis is to what extent its structure and functioning effectively serve its production-functional purpose. For solving it, the economic systems' management should keep an eye on the production technological expedience of the processes and operations included in the system as well as on their social side, the effective structuring of social relations, including the relations of control.

As a specific form of social attitude, the purpose of control is ensuring effective presence of human factor in the production technological process. Control could be reviewed as an original, function-defined instrument for domination, objectively conditioned by the necessities of cooperated production in the conditions of division of labour (Marks 1955). The objective necessity is set in the interests of the ones whose monopoly is the conduction of organization and managerial functions.

Organized control neutralizes the possibilities for autonomy of executors, who serve the production processes. The compulsory nature of the control exercised upon the oppressed ones provokes dissatisfaction. This is natural reaction as expression of disagreement with the purposeful activity of organizations to devour and subordinate them according to their goals (Etzioni 1967). In this sense, although certain

resistance is registered, objectively it is accepted by necessity social impact as major circumstance for progress and improvement. Exercising control in each economic system, the possibility for registering and analysing the level of certain factors are quite speaking for the effectiveness of the process: (1) The actual extent of real interest of the participating individuals and groups in the strict execution of the delegated functions and tasks. (2) The quality of execution at the lack of control. (3) The quality of execution at forced conduction of control actions.

Forming the view for the consequences of control, one should always consider that the production technological expedience realization is a result of disciplined behaviour of individuals and their groups as well as of the creativity, their activeness and initiative while realizing their functions in the organization. Control's content is defined by the immediate connection and the continuous interaction between the object and the subject, by their manifestation in the various forms of social management. The behaviour of the subject towards the object, the inside mechanisms of impact and interaction is defined by the development of the social environment, by its perfection. There is no doubt society and its structures (Terziev et al. 2020c) need control. This is control that helps the improvement of social relations, focusing the power of impact upon the behaviour of the individual or the group of individuals united at achieving particular goal.

Social resonance of control and the feeling of dissatisfaction from it are historically objective and particularly defined by the cultural differences (Nakata and Sivakumar 1996) of organizations, formed by the national cultural peculiarities and the organization identity. The control that is exercised on the behalf of society regarding the individuals, who compose it, the social groups and organizations, is known as social control (Ross 1969). It rests on the authority of the whole society and is realized through the apparatus it has, including the possibilities for domination and submission by the state.

Observing the social norms that ensure the entirety and sustainability of society, integrate the individuals, the groups and the social organizations, and ensure the solving of socially accepted goals and tasks are defined as subject of social control. These norms, goals and tasks acquire the meaning of social order or social contract. The fact of commonness itself is a result of a compromise with view to avoiding conflicts and preserving the society. In this context, social control is called upon ignoring and regulating the confrontation of individuals and social formations. It is product of the social consensus, which is achieved in order to avoid conflicts. Social control's task is to regulate deviating behaviour (Durkheim 1966; Merton 1957), which is in contrast with the dominating way of life and breaks legal, moral, political, religious, ethnic and other social norms. At some stage in its development, society creates a structure and organization of government as its own internal mechanism for action.

The differences in the various social economic formations are a result of changed correlations in the method of production and consumption, of contradictions expressed by the form of power and governing. Human evolution is a result of building and improvement of a particular structure of society, based on a definite way of objective, useful, personal participation to a particular stage of public

Table 1 Functions of management

Functions of management			
Organization resources Human, financial, material, technological, information, etc.			
Planning Selection of goals and defining a way for achieving them	Control Observation for conducting actions and corrections	Motivating Exercising impact for motivating the executors	Organizing Distribution of responsibilities regarding execution of work tasks
Results from the activity: Achieved goals, stock, services, productivity, effectiveness, etc.			

Source: Author

production. The structure fixes the dynamics, the movable side of social development, and preconditions its possibilities for achieving certain goal. In the management theory, there are a lot of definitions of the term management, but there is no one satisfying all points of view. Certain theorists give meaning to the term management by binding it to social transformations and accept that management is a special type of activity that turns unorganized crowd into effective productive group (Drucker 1974).

Another group of experts, reviewing the human society evolution, connecting it with the development and improvement of certain public organizations and structures, suggest the definition: management is a purposeful and effective process for achieving the organization’s goals through planning, organizing, motivating and control upon organization’s resources. An essential moment in this statement is the combining of the basic management functions—planning, organizing, motivating and control, with the effective and rational achieving of organization’s actual goals (Table 1).

The purpose of control, as function of management, is to ensure the realization and the update of the given target function of the managed system on the grounds of the principle of feedback. According to that principle, management could be exercised only when the governing ones receive information about the course of reaching the given status. The discrepancy of the actual status to the given one is that correcting signal that provokes change in the management and finds expression through several forms (Terziev et al. 2020d):

- Improvement of execution, undertaking regulative measures for a stricter observation of the specified standards for activities of execution.
- Changes in the standards for the activities with view to their complete adequacy to the set goals.
- Correcting the given meanings of the manageable variables included in the target function; changes in the structure of the given target function.

The process of realizing controlling function passes through two main stages, and several substantial phases are registered within them (Terziev et al. 2020d):

Table 2 Theoretic model of the control process

Theoretic model of standard of control process		
Evaluation of the standard for planning and prognosticating of the plan's execution	Elaboration of variants for admissible deviations and evaluation regarding the selection of variants	Measuring the meaning of variables
Evaluation of the planned status; defining standards for admissible deviations; measuring of factual status		
Regulation		
Elaboration of alternative variants for measures and their direct application		
Comparing the factual and the planned status		
Measuring of connections and dependences between the variables		

Source: Author

- Preparatory stage.
- Evaluation of the planned status.
- Defining standards for admissible deviations.
- Real stage.
- Measuring the factual status.
- Comparing the factual with the planned status and diagnostics of deviations; regulation.

The flowing of the control process in the organization is regulated through internal standard for control. The standard embraces the technological procedures of implementing the control activities as well as the responsibilities of the various hierarchical sections and time horizons of the control effects (Table 2).

The analysis of control as function of management wouldn't be complete if it does not include its perimeter of action and its connections with the other types of control that function and regulate the activity of each organization are not given meaning to. The roots of control as function of management could be found yet in early samples of managerial thought (Worthy 1950), and each next sample enriches and develops further the meaning of control in content and functional aspect. Its essence and organized nature, as range of its forming stages and their placement and going within time, define it as process through which the governing ones make sure the resources are acquired and used effectively and efficiently for achieving the organization's goals. The combination of activities in control's development, as function of managing, going in the form of a process, is logically organized as sequence. The algorithm of carrying out rests on the grounds of rationalized reasonability and certain regularity, which form the process as specific organizational system. In the organizational theory development, complicating the social and political environment is the main precondition for the improvement and the complicating of nowadays organizational forms and types of control, realized in them. The differentiation of particular types in compliance with the fields of manifestation of the controlling function is of a particular interest in classifying the forms of control. Each field of manifestation, as a rule, supposes different circumstances that reflect upon the necessary characteristics of controlling activity and—from here—upon the

used forms of control (Terziev et al. 2020e). The approach for the economic systems in such a classification is considered in regard to the time horizon of controlled activity, with the scope of activity and with the specialization of the activity.

Gradually, necessity of structural and subject differentiation of the strategic, tactic and operation aspects of controlling activity appears with the deepening necessity of improvement of strategic management in the development of economic systems. An expression of the trend in strategic plan is the differentiation of special subjects within the big systems that deal with strategic control. Although the process of such concrete differentiation hasn't yet gained serious dimensions, the specific task differentiation in the various time horizons of control is held actively within the frame of the hierarchical structure of the various control subjects (Terziev et al. 2020e). The positioning of the three types of control reflects upon their content and nature, methods and forms of realization, goals and significance of the end product. Although these forms of control are mutually supplementary, each one of them registers definitive differences.

Despite the theoretic formulating of substantial characteristics of the three types of control, it is quite difficult to specify and dose the application in a strictly defined form for control impact. Considering the dynamic internal and external environment, where systems develop, the complicated market conditions and the high clients' requirements, growing technical and technological security, the necessity of control deepens and provokes the composing of a more adequate format that combines the characteristics of more than one type of control that satisfies provocations in regard to duration and scope of activity.

At a certain stage of development of managerial thinking, the revised theoretic elaborations on grounded on suggested by practice ideas form new in content and parameter of activity form of control—managerial control. The differentiated managerial control summarizes the tasks in operative and tactic control while widening the scope of action and significantly increasing the time horizon. This convergent form of control is a summarising category, loaded with realizing the control functions between the control of execution and the strategic control (Table 3).

Certain group of scientists engaged in the development of the idea for managerial control in content as well as in structural improvement impose their standpoint for managerial control: organizational system for searching and accumulating of information, for accountancy and feedback, established to be in contrast with so that the organization adapts to its environment change, the work behaviour of cadres

Table 3 Positioning of managerial control

Positioning of managerial control in the system	
Managerial control	
Higher echelon of the subjects of management and control	Strategic control
Medium echelon of the subjects of management and control	Tactic control
Lower echelon of the subjects of management and control	Operative control

Source: Author

measures according to criteria connected with certain sub-goals so that the difference among them could be removed or corrected.

The process of realizing managerial control is carried out on the grounds of analysis of the results of the realization of the daily tasks given to all executive cadres from the organization. The system for managerial control collects information and coordinates the combination of all activities, where these lead to the realization of particular goals. The content of the whole of this process of exercising managerial control proves also a certain change regarding combining the two interconnected activities of realizing all hierarchical levels of control, namely, planning and control, while reasonable balance is realized in the managerial control system that is connected with realization of goals for a more significant as duration period.

The updating and enrichment of modern managerial process are connected to several substantial characteristics, presented at managerial control introduction and realization (Terziev 2019; Terziev and Georgiev 2017):

- The value in the process, the collected and analysed information that provokes registered necessity of actions on behaviour change realized at working feedback, is considered.
- The status of the connection between control and regulating is considered, where regulating influences are exercised at given by the control data for occurred undesired changes. The essence of regulating is engaged with minimizing the differences between found and desired status of results. Realizing feedback would appear useless without regulating actions' realization, and the controlling process would acquire analytic-cognitive nature.
- Certain attention is paid at the realization of managerial control as a coordinated combination of the managing team's logically reckoned activities.

The role of behaviour and standardizing of particular process and procedure criteria are promoted as direction at acquiring actions, as regulator of relations and as a factor for development and improvement of self-control in realizing the organization's goals (Solovev et al. 2020).

4 Conclusion

The carried out review of the existing concepts for the status and the development of managerial control in modern organizations gives grounds for drawing the following summarizing conclusions and assessments (Terziev and Stoyanov 2017a, b, c, d):

- Within the frame of managerial science development towards the end of the twentieth century, high level of maturity of theoretic understanding about control as function of management is achieved. This level of maturity has allowed the differentiation of theory of control as a significant independent branch of scientific knowledge on management.

- Modern world puts managerial control realization in new circumstances, which change the stresses, the extent of significance and priority at integrating the elements of control process. These new circumstances find their expression mainly in the dynamic, radical and unexpected changes in organizations' environment. The new condition of environment leads to giving a new meaning to the understanding about managerial control as manifestation and realization of the feedback principle. Without losing its role of negative feedback that ensures the realization of the standards for executing the activities in the organizations, the managerial control increases more and more its role of positive feedback leading to change in setting goals and planning the activities. In this sense, the stress on studying control's sanction functions within the frame of the views for the controlled organization towards the end of the twentieth century moves radically towards the study of its turning into factor for generating ideas for change within the frame of the views for innovative organization. This trend might be reviewed as "first basic pillar" in the further development of the understandings about managerial control.
- Penetrating into the foothills of new economy based on knowledge and information, it changes the main factors of organizations' success. In the last years of the previous and the first years of the new century, the understanding that the growing role of immaterial assets is in the base of these factors established itself explicitly. This put the managerial control in a situation that requires theoretical rationalization at methodological and methodical level of new directions and methods for measuring the norm of systems, their factual and expected status as well as the diagnostics of deviations. A clear trend for widening the scope of controllable predominantly financial parameters outlines in the direction towards immaterial ones and for the originating from there deepening of the interdisciplinary nature of the theory of control. This trend might be reviewed as second basic pillar in the nowadays development of the managerial control theory.
- The study of strategic control problems towards the end of the twentieth century started turning into a central problem of enriching the knowledge about managerial control. Various ways and means are searched for strategic control systems to be integrated in the theoretic systems of control on the execution and of the operative-tactic control. This trend might be reviewed as third basic pillar in the further progress of scientific knowledge about managerial control.

Managerial control structuring as element of the social programme would generally increase its effectiveness and on the other would contribute to finding exact and clear mechanisms as well as criteria of assessment at all levels and stages of its implementation. Defining certain mechanisms for the application of managerial control in the process of social programming is a challenge that needs complex of empiric and theoretic studies in various concrete fields.

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How the Organization of Medical Record Keeping in a Hospital Ward Affects the Level of Direct and Indirect Costs: Model Approach



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Abstract Keeping medical records is the process that is necessary for the functioning of healthcare due to legal and epidemiological requirements. The aim of this paper is to assess the impact of the way the process of keeping medical records in a hospital ward is organized on the level of direct costs of this ward related to administrative processes and indirect (social) costs in healthcare resulting from the involvement of medical staff in administrative processes. We have created a model of a hospital ward functioning in conditions of limited human resources and assumed medical demand for health services. We examined the initial level of direct costs of the medical records process and the level of indirect costs associated with patients waiting to be admitted to the ward. Reorganization of the process and allocation of part of the activities to non-medical staff will increase the availability of medical personnel, which will allow more patients to be admitted. Assuming there is no bottleneck in other parts of the treatment process, this results in a decrease in direct costs of the process of keeping medical records and indirect costs related to waiting in the queue for treatment.

Keywords Medical records · Medical documentation · Recourse-based costing · Direct costs · Indirect costs · Social costs

1 Introduction

Medical records in the format currently available appeared at the beginning of the twentieth century. In this standard, based on personal data, all information gathered in a healthcare center about a specific patient could be found. It is significant for

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many reasons—clinical, educational, administrative, managerial, and legal. The process of preparing medical records largely rests on medical staff—doctors and nurses—supported by dedicated administrative staff. Medical records are usually filled in manually, hand- or computer-written (Gillum 2013).

This process is time-consuming and involves resources that are scarce and which cost is high—medical staff. From the point of view of the effectiveness of healthcare, involving medical personnel in keeping medical records should be analyzed from two dimensions. Firstly, keeping medical records is a process with certain costs for a healthcare center. These are called direct costs and result from the costs of resources involved in the process of keeping medical records and the time they spend on it. Secondly, human resources have certain capacity (working time). Involving them in one process results in the lack of implementation of other processes at that time, for example, the medical treatment. Patients' delay in accessing healthcare generates social costs, known as indirect costs (Lorkowski and Raulinajtys-Grzybek 2017).

Standard budget impact analyses take into consideration direct costs only incurred by the payer. It is reasonable if only impact of public or private payer's budget is concerned. Organization of health technologies can be also analyzed from the process-based point of view, which brings it closer to management studies. From such point of view, it is more coherent to take the company's perspective—in this case the hospital perspective. Additionally, from the social perspective, it is crucial to include the waiting time for the treatment. This study combines the perspective of healthcare institution (microeconomic approach) with the social perspective (indirect costs), which is relatively new in this type of analyses but consistent with the research held so far that organization of healthcare can be analyzed throughout project management methodology (Grzeszczyk and Zawada 2020).

The aim of this paper is to assess how the way the medical records are kept in a hospital ward affects the level of direct and indirect (social) costs. We created a costing model using financial and nonfinancial data for orthopedic wards in Poland. The model compares the total direct of keeping medical records and indirect (social) costs incurred as a result of devoting medical personnel's time to activities other than treatment. We analyzed different scenarios, assuming increasing amount of medical records and substitution of production factors (medical and non-medical personnel). The main contribution is the development of a methodology for cost assessment of various technologies, taking into account the management and social perspective.

2 Theoretical Background

At the end of the nineteenth century, medical records were kept on an ongoing basis during the treatment of the patient and became full medical records, according to our understanding of the word, and not loose notes for didactic and scientific purposes. Documentation began to be combined in a structured manner over time. At the beginning of the twentieth century, St. Mary's Hospital and Mayo Clinic introduced one record assigned to each patient. They based it on the business and industrial

practice. The introduction of standard disease history forms and vital signs diagrams proved to be common at the beginning of the twentieth century. This was a consequence of the application of new technologies and trends taken from the economy to the management process in medicine (Camp et al. 2008; Gillum 2013).

Major changes in the process of keeping medical records occurred with its digitization. About 50% of doctors reported keeping electronic medical records in the United States in 2011. However, it is still often entered manually by filling out individual computer files. Currently, artificial intelligence is mainly used to modify and improve the techniques of detecting and obtaining data from the digitized text, as well as to personalize therapeutic recommendations (Hahn et al. 2011; Kellermann and Jones 2013; Lau et al. 2012). Studies show that successful implementation of electronic medical records has positive effect on the quality of patient data (Lambooj et al. 2017; Lium et al. 2008). Some studies also show a positive effect of electronic medical records on the organization of the treatment process (Xue et al. 2012; Buntin et al. 2011).

The legal standards in force in each country form the basis for creating medical records in its current form. The decisions of national and international scientific societies also oblige to create some attachments to medical documentation in some cases (Lorkowski and Wilk 2017). The volume of medical records is systematically increasing, as shown by conducted research. Medical personnel declares that the volume of medical records is too large and that they need to devote a significant part of working time to administrative activities. According to the research, this is a source of frustration and professional burnout of the staff (Lorkowski 2019). Earlier studies of one of the authors of this article conducted in Poland indicate that doctors spend at least 1.25–1.75 hours a day on completing medical records, which is 16–24% of their total work time (Lorkowski and Wilk 2017).

3 Methodology

We created a costing model of a 20-bed orthopedic hospital ward. Nonfinancial and financial data describing the process were obtained from official databases of orthopedic wards in Poland and through interviews with staff working in orthopedic wards. Firstly, we examined the initial level of costs, namely, direct costs of the medical records process and indirect costs associated with patients waiting to be admitted to the ward. Secondly, we simulated how a change in the organization of the process of keeping medical records will affect the level of direct and indirect costs if the burden of the process is transferred more to non-medical staff.

3.1 Direct Costs

Direct costs of the medical records process have been estimated using the resource-based approach of process calculation. This approach assumes that unit costs are calculated for individual resources and allocated to processes proportionally to the consumption of resources. Costs of economic resources are calculated by adding all costs related to that resource, directly or with the use of cost drivers. The allocation of resources is performed on the basis of predefined activity cost drivers that show the consumption of resources. In the case of keeping medical resources, the cost has been estimated by adding unit costs of three main human resources—doctors, nurses, and secretaries—proportionally to the time spent on that process (see Fig. 1).

3.2 Indirect Costs

Indirect (social) costs are costs incurred by the society, mainly due to the absenteeism, e.g., the fact that people who are sick do not work and do not produce value. There are multiple methods of estimating indirect costs. In our model, they have been estimated using human capital approach, i.e., based on the value of the GDP lost in consequence of sick leave.

3.3 Input Data

- We built a 20-bed hospital ward model with 6 full-time equivalents (FTEs) of doctors and 12 FTEs of nurses plus 2 FTEs of non-medical staff involved in keeping medical records (secretaries). We assumed that both doctors and nurses are scarce resources and their total capacity cannot change.

Fig. 1 Resource-based approach to process costing.
Source: authors own study

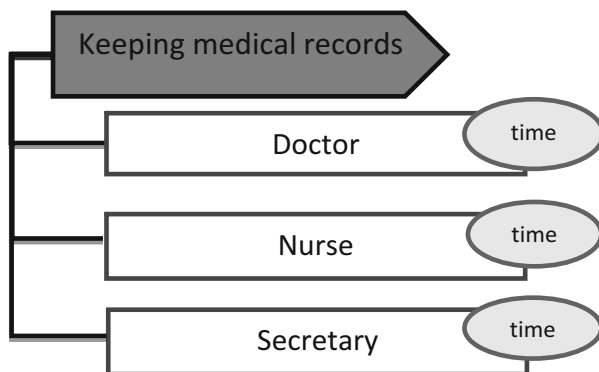


Table 1 Involvement of resources

Resource	Treatment (hour/patient)	Keeping medical records (hour/patient)	Total
Doctor	4.5	1.5	6.0
Nurse	10.0	2.0	12.0
Secretary	0.0	2.0	2.0

Source: (authors own study)

Table 2 Number of patients treated: initial model

Resource	Monthly capacity (hours)	Total time per patient (hours)	Maximum monthly number of patients
(A)	(B)	(C)	(D) = (B)/(C)
Doctor	806.4	6.0	134
Nurse	1612.8	12.0	134
Secretary	No constraint	2.0	No constraint

Source: (authors own study)

- We estimated the total productive capacity of the resources assuming they work 168 hours/month and 80% of their total time is spent on productive activities (the correction is due to vacations and breaks at work).
- The hourly wages of personnel have been taken from the official remuneration data of the Agency for Health Technology Assessment and Tariff System and are average wages at the orthopedic wards.
- At the initial scenario, we assumed that healthcare in case of each patient involves certain amount of doctor’s, nurse’s, and secretary’s time (see Table 1).
- We assumed that 20% of the people waiting for the treatment are professionally active and that they do not work for 10% of the total waiting time.
- According to official data, monthly GDP per capita in Poland was \$1295 in 2019 (GUS, 2019).
- We assumed that at the starting point, the medical demand is 1608 patients waiting to get to the hospital ward.
- We assumed that indirect costs are calculated for full months of waiting time.
- The substitution of production factors occurs in the model, and there are no other bottlenecks in the process.

4 Results

The total number of patients that get health service per month depends on the total capacity of personnel and their involvement in all processes. In the initial scenario, it is 134 patients per month (see Table 2).

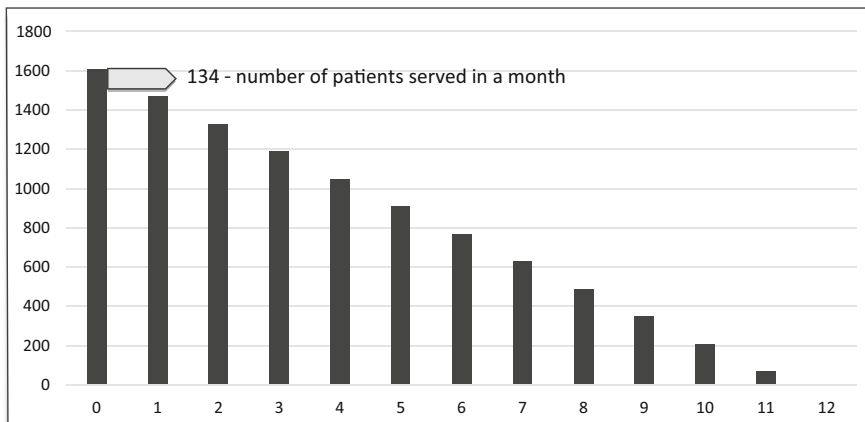


Fig. 2 Patients’ waiting time: initial model. Source: authors own study

Table 3 Direct costs: initial scenario

Resource	Wage(\$/hour)	Annual time of keeping medical records			Total annual cost
		Hour/patient	No of patients	Total time	
[A]	[B]	[C]	[D]	[E] = [C]x[D]	[F] = [B]x[E]
Doctor	22.60	1.50	1608	2412.00	54,511.20
Nurse	11.30	2.00	1608	3216.00	36,340.80
Secretary	7.10	2.00	1608	3216.00	22,833.60
TOTAL					113,685.60

Source: (authors own study)

With the initial queue of 1608 patients and the maximum output of 134 patients per month, the time needed to serve all patients is 12 months (see Fig. 2). This means that a group of 134 patients does not wait for the treatment, another (equal size) groups are waiting for 1 month, 2 months, etc., and the longest waiting time is 11 months.

Total annual direct hospital costs have been estimated (see Table 3). Their total value depends on several variables—the hourly wage of the personnel, the time spent on keeping medical records by each of the resource groups, and the total number of patients taken care of. In the initial scenario, it amounted to over \$113.5 k.

Total annual indirect (social) costs have been estimated (see Table 4). Their level is affected by several variables—the GDP lost per patient (calculated by multiplying the monthly GDP by the amount of time spent of the sick leave), the rate of professionally active among patients which is related to the epidemiology and type of sickness, and the total number of patients served monthly. In the initial scenario, it amounted to over \$229 k.

Table 4 Indirect (social) costs: initial scenario

Number of patients	Months in the queue	GDP lost per patient	Rate of professionally active	Total GDP lost
[A]	[B]	[C]	[D]	[E] = [A]x[C] x[D]
134	1	129.50	20%	3471.00
134	2	259.00	20%	6941.00
134	3	388.50	20%	10,412.00
134	4	518.00	20%	13,882.00
134	5	647.50	20%	17,353.00
134	6	777.00	20%	20,824.00
134	7	906.50	20%	24,294.00
134	8	1036.00	20%	27,765.00
134	9	1165.50	20%	31,235.00
134	10	1295.00	20%	34,706.00
134	11	1424.50	20%	38,177.00
Total				229,060.00

Source: (authors own study)

Table 5 Number of patients treated: Scenario 1

Resource	Monthly capacity (hours)	Treatment (hour/patient)	Keeping medical records (hour/patient)	Total time per patient (hours)	Maximum monthly number of patients
(A)	(B)			(C)	(D) = (B)/(C)
Doctor	806.4	4.5	1.0	5.5	146
Nurse	1612.8	10.0	1.5	11.5	140
Secretary	No constraint	0.0	3.25	3.25	No constraint

Source: (authors own study)

5 Discussion

We made a scenario analysis. The following scenarios have been analyzed:

- Scenario 1: The amount of medical records remains unchanged, and there is substitution of production factors—a doctor and a nurse are partly substituted with a secretary in keeping medical records.
- Scenario 2: The amount of medical records is increasing with no other changes to the model.
- Scenario 3: The amount of medical records is increasing, and there is substitution of production factors—a doctor and a nurse are partly substituted with a secretary in keeping medical records.

In Scenario 1, both a doctor and a nurse spent 0.5 hour less on keeping medical records, whereas a secretary spends 1.25 hour more on this process (see Table 5). We

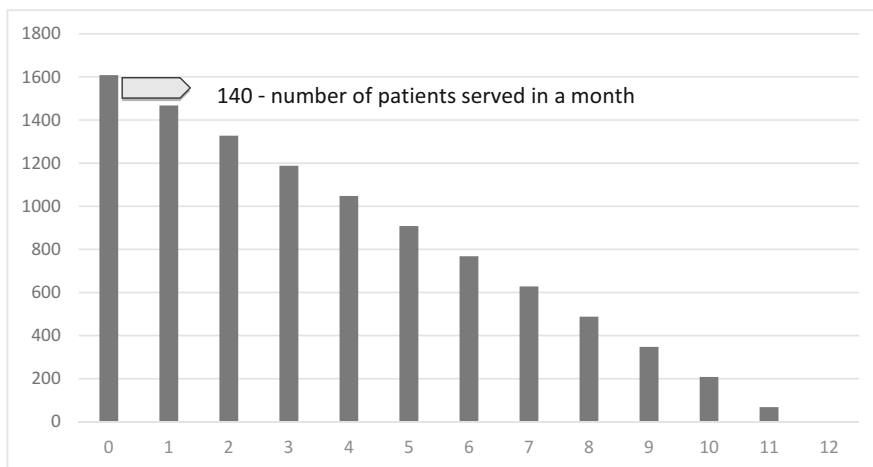


Fig. 3 Patients' waiting time: Scenario 1. Source: authors own study

assumed that a secretary is less productive than the medical personnel and thus the total time spent by all resources on keeping medical records increased.

At the same time, the scarce resources have been partly released, and more patients can be served as more of their capacity can be devoted to the treatment process. The maximum number of patients that can be served by a doctor is 146, and for a nurse, it is 140 per month. As a doctor and a nurse are complementary resources, both needed for the treatment, the actual maximum number of patients in Scenario 1 is 140 per month. The total direct cost has been estimated (see Table 8). It is lower than in the initial scenario as the total time of involving the more expensive resources (a doctor and a nurse) has been reduced which caused a reduction in the total direct cost stronger than its increased caused by the increased involvement of the least expensive resource (a secretary). The total indirect cost in Scenario 1 has also been reduced as the total queue has been shortened (see Fig. 3). The total number of patients waiting in the last, 12th month, has been reduced to 68 people.

In Scenario 2, all resources spend 0.5 hour more on keeping medical records. As a result, the maximum number of patients is reduced to 124 per month—which is the lower number of the maximum number of patients that can be served by a doctor or by a nurse (see Table 6).

The total cost—both direct and indirect—has been estimated (see Table 8). It is higher than in the initial scenario as the total time of involving all resources in keeping medical records has increased, which reduced the maximum number of patients and lengthened the queue to 13 months. The total number of patients waiting in the last month is 120 people (Fig. 4).

In Scenario 3, the substitution of production factors has been simulated, identical as in Scenario 1. Both a doctor and a nurse spent 0.5 hour less on keeping medical records than in Scenario 2, whereas a secretary spends 1.25 hour more on this

Table 6 Number of patients treated: Scenario 2

Resource	Monthly capacity (hours)	Treatment (hour/patient)	Keeping medical records (hour/patient)	Total time per patient (hours)	Maximum monthly number of patients
(A)	(B)			(C)	(D) = (B)/(C)
Doctor	806.4	4.5	2.0	6.5	124
Nurse	1612.8	10.0	2.5	12.5	129
Secretary	No constraint	0.0	2.5	2.5	No constraint

Source: (authors own study)

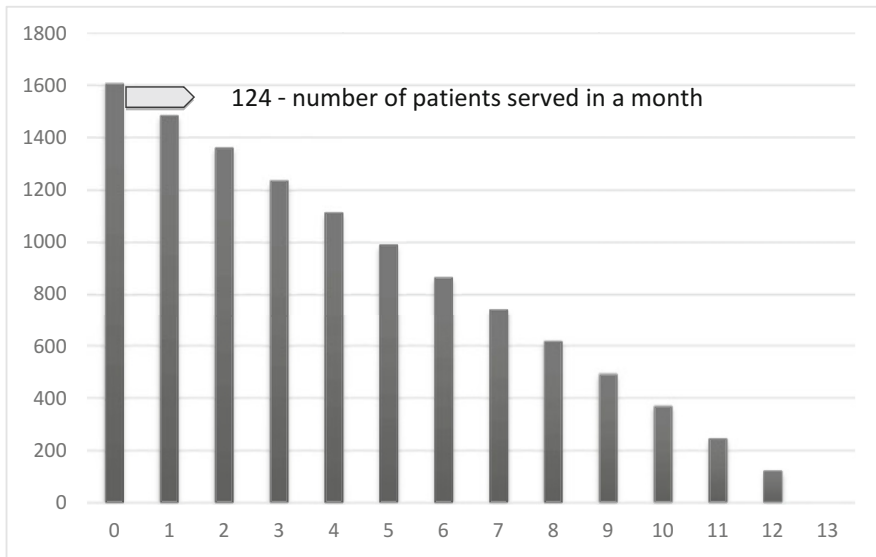


Fig. 4 Patients' waiting time: Scenario 2. Source: authors own study

process (see Table 7). As a result, the maximum number of patients is 134 per month—which is the same level as in the initial scenario.

The total cost—both direct and indirect—has been estimated (see Table 8). The direct cost is higher compared to the initial scenario as more time of a secretary is needed to address the increased amount of medical records. The indirect cost remained at the same level as in the initial scenario.

6 Conclusion

The objective of the study was to create a model for calculation of the direct and indirect (social) costs of keeping medical records as well as to assess how the organization of this process affects the final values. Initial model was created taking

Table 7 Number of patients treated: Scenario 3

Resource	Monthly capacity (hours)	Treatment (hour/patient)	Keeping medical records (hour/patient)	Total time per patient (hours)	Maximum monthly number of patients
(A)	(B)			(C)	(D) = (B)/(C)
Doctor	806.4	4.5	1.5	6.0	134
Nurse	1612.8	10.0	2.0	12.0	134
Secretary	No constraint	0.0	3.75	3.75	No constraint

Source: (authors own study)

Table 8 Summary of direct and indirect costs

Scenarios	Description	No of patients/month	Direct costs	Indirect costs	Total cost
Initial model		134	113,685.60	229,060.00	342,745.20
Scenario 1	Substitution of production factors	140	100,701.00	218,803.00	319,504.20
Scenario 2	More medical records	124	146,469.60	249,262.00	395,911.20
Scenario 3	More medical records + substitution of production factors	134	133,665.00	229,060.00	362,724.60

Source: (authors own study)

assumptions regarding financial and nonfinancial data for orthopedic wards in Poland. Annual costs for a 20-bed ward serving over 1,6 k patients per year amounted to over \$340 k. Reorganization of the process and allocation of part of the activities to non-medical staff will increase the availability of medical personnel, which will allow more patients to be admitted. Substitution of scarce human resources (doctors and nurses) with more available resources (secretaries) in non-value adding processes such as keeping medical records leads to the decrease in both direct and indirect costs.

Both literature and practical experience shows that the amount of medical records is increasing which leads to the increase of the total costs related to it. Most significantly, if the organization of the process remains unchanged, additional time spent on filling the documents by the medical personnel leads to lower number of patients served and longer waiting times. The model shows that indirect (social) costs can stay unchanged even if the amount of medical records is increasing, provided that this burden will be taken by the non-medical personnel. Shifting medical personnel to activities adding value to patients can increase the effectiveness of the process while reducing the total cost of bringing value. Assuming there is no bottleneck in other parts of the treatment process, this results in a decrease in direct

costs of the process of keeping medical records and indirect costs related to waiting in the queue for treatment.

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Part III

Marketing

The Effect of Perceived Usefulness, Perceived Ease of Use, Reward, and Perceived Risk toward E-Wallet Usage Intention



Akmal Nashren Abd Malik and Sharifah Nurafizah Syed Annuar

Abstract Entering the era of technology modernization, E-wallet can be considered as a leading method of payment that is continuously being used by the worldwide consumers. However, this type of services is still in the early stages and unfamiliar among Malaysian consumers. Until now, only few research papers were discovered toward the measurement of E-wallet usage intention in Malaysia. The factors affecting consumers' intention toward the usage of E-wallet specifically among youth with range of age of 18–30 years old need to be examined in this paper. Perceived usefulness, perceived ease of use, perceived risk, and reward are the variables that are being used to identify the relationships with E-wallet usage intention by the consumers in Malaysia. To construct the conceptual framework, technology acceptance model (TAM) is selected for this research. The results show that perceived usefulness, perceived ease of use, and reward have a direct effect toward intention to use E-wallet. However, perceived risk has no direct effect toward intention to use E-wallet. There were 251 respondents, and an online questionnaire was used for data collection. This research paper expected to contribute to the literature particularly on E-wallet by finding causes that influence consumer usage intention toward E-wallet.

Keywords E-wallet · Technology acceptance model · Youth · Technology · Malaysia

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1 Introduction

Information and communication technology (ICT) improvement had change the life span of one person as well as the responsibilities of the company supportively. Advancement in technology gives massive effect and also offers a lot of enhancements in terms of financial, economic, and working expenses (Slozko and Pelo 2015) as well as reinforcing the organizational accomplishment (Ali 2010). Nowadays, the technological era transformation has brought new exchange into world business environment, whereby the business trades without fail have shifting from cash to electronic payment (Mohamad, Haroon, and Najiran 2009). Furthermore, the boost of network usage from worldwide have contribute in smoothing the global e-commerce businesses (Fernandes 2013).

There are numerous types of cash that are being applied by using new technology payment, and most of them are combined together with electronic method such as funds transfer, business trades process of payment on business consumptions, postpaid gadget, and electronic wallet (Misra et al. 2004). In addition, evolution of payment starts from the barter system and then change to money, after that change to cheque, and then change to credit card and currently process of settlement are concentrating towards the ebusiness and m-commerce which also recognized as electronic wallet. Furthermore, there are a lot of m-payment programs, which are already invented to make it easier for the consumer to do settlement, transfer cash, and also handle financial affairs (Dahlberg et al. 2008, Thakur and Srivastava 2014, Tam and Oliveira 2017). So far, in Malaysia there are more than 30 E-wallet licenses that have been approved by the Central Bank of Malaysia. However, 80 percent of the transactions is still in cash, while another 20 percent is from online banking and credit cards. It shows that Malaysian still do not embrace on the usage of E-wallet. There are limited studies that can be found in the literature which discussed on the intention to use E-wallet by youth in Malaysia. Therefore, the purpose of conducting this research is to examine the effect of perceived usefulness, perceived ease of use, perceived risk, and reward toward E-wallet usage intention. This study is focusing more in Malaysia because of the limited usage of E-wallet in the country.

In Malaysia, the technology keeps on advancing and improving, but still exploitation of E-wallet by the consumer is still low, and most business trades in Malaysia are in cash. It demonstrates that electronic wallet usage is currently in the infancy stage and also the society is not well prepared to adapt and practice this new method of payment. Based on the above consideration, this research examines the E-wallet usage intention among youth in Malaysia and complete the literatures which currently exist with regard to perceived usefulness, perceived ease of use, reward, and perceived risk among Malaysian youth.

2 Literature Review

2.1 *E-Wallet*

E-wallet can be considered as the most valuable tools of smartphones by utilizing the NFC technology chip, which function is to let the consumers perform quick and safe payment without using any cash or debit card (Pal et al. 2015). As mentioned by Qasim et al. (2012), E-wallet is specified as an application which is being installed by smartphones users and allows consumers make different types of financial transaction. Husson (2015) adds that by utilizing the new technology payment such as E-wallet, QR code, and cloud computing, it could help the consumer to perform more effective and efficient payment in the future.

Recent study conducted by Al-Amri et al. (2018) on customers of a bank institution which have an intention to use mobile wallet using a smartphone. The result shows that perceived ease of use, perceived risk, perceived usefulness, and trust have positive effect toward the intention to adopt near field communication (NFC) mobile wallet proximity payment among smartphone user. Moreover, a study conducted by Madan and Yadav (2016) stated that perceived risk has no significant effect toward the intention to accept mobile wallet. The results explained that the service workers on telecommunication sector and companies that take part on designing a payment activity and also the business associations should develop a multilayer security system so as to reduce any consequence that is suffered by mobile wallet users.

Studies on electronic wallet in Malaysia is very limited. In addition, numerous research paper was conducted by the developed countries due to the advancement in term of technology (Shaw 2014; Shin 2009). E-wallet in Malaysia is in a grow-up phase, and because of its limited information, the consumers had no opportunity to go through the process of using the E-wallet when making a payment. Therefore, as a result of the mix findings and limited literature specifically on E-wallet, a resolution to perform a research toward the usage intention on E-wallet must be done in Malaysia.

2.2 *Technology Acceptance Model (TAM)*

Technology acceptance model (TAM) is invented by Davis (1986). It is a modification from the Theory of Reasonable Action. The purpose of it being designed was to measure the acceptance by the consumer toward information system and technology. This theory consists of two specific elements which are recommended by the scholar where it can give a good understanding in terms of technology recognition. The first elements were perceived usefulness, and the second elements were perceived ease of use.

Technology acceptance model has become one of the best tools that is being used in order to understand the acceptance toward the technology in many fields, for instance, commerce (Ha and Stoel 2009), learning sector (Huang et al. 2007), and manufacture (Davies and Harty 2013). The objective of the TAM was to have a better understanding and to improve acceptance by the user and also serve as guide on the theory part.

TAM was already well acknowledged and was cited in many studies mostly on the topics of the acceptance of technology (Lee and Kozar 2013). Slade et al. (2015) add more that TAM has turn out to be the framework that often is being used for the evaluation of technology information research. Technology acceptance model helps scholars and experts to identify the acceptance and rejection of technology or system together with better explanation and valuation (Lai 2017). There are a number of factors in choosing technology acceptance for the supporting theory: first of all, straightforwardness and accurate estimation toward different types of data from the system itself (Guriting and Ndubisi 2006; Pikkarainen et al. 2004; Kleijnen et al. 2004; and Venkatesh and Morris 2000) and, second, a significant percentage of research paper using TAM particularly in the context of mobile wallet (Slade et al. 2015).

Despite the fact that technology acceptance model (TAM) is often applied in order to determine the information system acceptance and usage (Mathieson 1991; Davis and Venkatesh 1996), there may a possibility of adding an extension of variables on this model and it was already been confirm and tested (Lai and Zainal 2014, 2015 and Lai 2016). Therefore, several variables will be added in this study as an extension of this model which will help to clarify usage intention on E-wallet among youth in Malaysia.

2.3 Perceived Usefulness

Perceived usefulness can be explained as ones' views toward the use of specific system to enhance the given task performance (Agrebi and Jallais 2015). According to Pham and Ho (2014), people beliefs that using a specific system which have a new features and easy to be used can enhance one's job performance enhancement. When the consumers perceived the technology is very convenient, it will lead the them have the intention of using a specific technology system (Venkatesh and Davis 2000).

Shaw (2014) suggests that perceived usefulness affects the decision to use a mobile wallet substantially. The results clarified the expectation that a desired outcome would result in individuals using the systems. Because mobile phones are ready at hand, fast transaction can be performed easily as this was mentioned by the participants in the mobile payment circumstance. Smartphones, on the other side, often give special offer of collecting bonuses and receipt which turn into more convenient to use.

Most research used perceived usefulness as variable, and many results indicate that there is a significant impact between perceived usefulness and an adoption of technologies. It illustrates that perceived usefulness has a vital role in verifying the technology acceptance where it will give a better outcome for the upcoming studies. Therefore, examining perceived usefulness from the perspective of mobile payment is essential for this study.

2.4 Perceived Ease of Use

As stated by Saadé and Bahli (2005), perceived ease of use can be clarified by way of ones' viewpoints of a smaller amount of effort that needs to be used when operating a particular system. As said by Al-Amri et al. (2018), consumer trust can be earned if there is a user-friendly combination and impressive guide on how to use mobile payment practices and also by showing the capability and kindness from the service providers' side. Perceived ease of use is also defined as view on operating a technology by using least attempts (Pham and Ho 2015). Consumer acceptance toward a system can be measured by the easiness when using it.

In study by Mun et al. (2017), the result shows a positive impact of perceived ease of use toward the usage intention on service that uses mobile phone to make a payment. One more study conducted by Guriting and Ndubisi (2006) demonstrates that there is a positive effect of perceived ease of use toward consumer's behavioral intentions on e-payment usage. Abrazhevich (2001) clarifies that e-payment system with an effective design will attract more consumer and if the new payment method is easy to understand and use, the consumer tends to be attracted to adopt and try to use e-payment in Malaysia (Abrazhevich 2001).

From all of the findings above, perceived ease of use and the technology usage intention were discovered to have a significant relationship from other cultures and also response from users (Natarajan et al. 2017; Kwon et al. 2020). Because of the different results from previous scholars, it is crucial for this research paper to explore the effect of perceived ease of use with respect to E-wallet usage intention.

2.5 Reward

Rewards can be referred as a benefit of expectations from the selected behaviors (Lee et al., 2008). Effort will be made by consumers in order for them to receive rewards or incentives (Kim and Han 2014; Varnali et al. 2012). According to study conducted by Saprikis (2018), reward shows a positive effect toward the social commerce behavioral intention. The findings clarify that reward can attract social network service users to conduct online buying purchases. In regard to its impacts, these types of actions can convince even more individuals to adopt social commerce (Saprikis 2018). Consumers treasure all of the possible rewards that are offered to

them. Similarly, according to Tavilla (2012), consumer will be attracted to use mobile payment if there are discounts or other incentives offered to them.

However, a study performed by Ahn and Park (2016) indicates that reward has no significant impact to behavioral intention toward organ donation. The findings state that the individuals who are aware to unmaterial reward did not have any plan to join the donation of organ. Rewards for material type are such a maximum of six million KRW including costs and interment costs, and nonmaterial rewards are honoring medal for a donation (Park 2016). The types of rewards offered can be a motivation for people to make a contribution of donating an organ (Ariely et al. 2009; Lacetera and Macis 2010a, b).

Investigation on reward had been conducted in many areas, including societal education, behavioral transformation progressions (Schunk et al. 2008; Lacetera and Macis 2010a, b, declaimed in Petri 2003; Weibel et al. 2010), office competence (Porter et al. 2003; Oluleye 2011), educational approach and performance (Eberts et al. 2002), and physical condition behaviors (Carlson and Tamm 2000; Volpp et al. 2006; Custers et al. 2008; Lacetera and Macis 2010a, b).

Even though some research has been conducted on reward as an independent variable in numerous areas, in regard to the lack of empirical research indication on young adults in the context of E-wallet, this has sparked an interest for this study to examine reward toward the intention to use E-wallet.

2.6 Perceived Risk

Perceived risk was clarified as “an observation on hesitation that made by users and also an unpleasant aftermaths of business deal done by a wholesaler” (Gupta and Kim 2010, p. 19). Risk can be considered as an important factor during the process of operating the latest technology of mobile wallet. Most of the consumers believe that wallet is more important than the mobile phone that is being used by them. Wu and Wang (2005) conducted a research in Taiwan between perceived risk and behavioral usage intention toward m-commerce and found out that there is a significant relationship between the two variables. The results clarified that having excellent knowledge and experiences in doing business through m-commerce can make consumer more aware toward the potential risk.

In addition to this, a study performed by Thakur and Srivastava (2014) confirmed that there is a negative relationship between perceived risk and behavioral intention to use of mobile payments. The findings clarified that legal and technological structures need to be adopted by mobile service providers such as certifications to guarantee the payment security and continuous mechanism improvement to ensure the personal information is safe. Some study pointed out that uneasiness on security and privacy risk can strengthen the consumer trust and intention to use specific services (Kumar et al. 2012; Sanayei et al. 2011).

Hence, it indicates that perceived risk is also an important factor that needs to be investigated in gaining the result on the acceptance of the consumer toward mobile

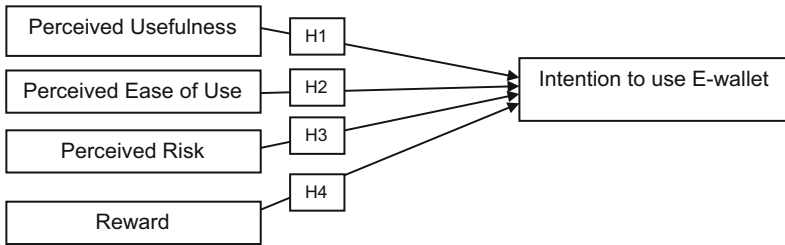


Fig. 1 Research framework. Source: Technology acceptance model (TAM) adapted by Davis (1986)

payment. Reliable and safe system will make more consumers use mobile payment. Therefore, due of the mix findings from numerous researches, perceived risk need to be examine particularly from the context of e-wallet. As a result, several hypotheses are developed (Fig. 1):

H1	: There is a positive relationship between perceived usefulness and E-wallet usage intention.
H2	: There is a positive relationship between perceived ease of use and E-wallet usage intention.
H3	: There is a negative relationship between perceived risk and E-wallet usage intention.
H4	: There is a positive relationship between reward and E-wallet usage intention.

3 Data and Methodology

Youth will be the targeted group for this research. The purpose of choosing youth as respondents is because youths tend to have a lot of information on advancement of technologies and also know how to use the latest technologies on the method of payment known as electronic wallet. According to Mun et al. (2017), stated that a better response able to be obtained by the youth regarding the technologies and can be considered as the mobile payment services potential user. Norizan Sharif (2003) states that the National Youth Development Policy 1997 range of age for youth is from 15 to 40 years old. However, Khairy Jamaluddin, the Ministry of Youth and Sports of Malaysia, stated that “The Malaysian Youth Policy (MYP) to be implemented in 2018 will replace the National Youth Development Policy (NYDP) 1997 and the MYP age limit is from 15 to 30 years compared to 15 to 40 years under the NYDP” (Borneo Post Online 2015). Mun et al. (2017) also conducted a study toward youth, and the range of age is from 18 to 39 years old. Therefore, the range of age that will be used in this study is from 18 to 30 years old. The range of age is applicable within that range. This study used purposive and convenience sampling techniques. The research instrument that used for this study is an online questionnaire. There are 251 respondents that will be examined in order to obtain an appropriate data. The least sample size that required in this research is

129 respondents ($f^2 = 0.15$, number of predictors = 4). IBM measurement SPSS Statistics Version 23 and Smart PLS 3.0 will be used to examine the end result. The items in questionnaire are measured by using five-point Likert scale which starts with “Strongly Disagree” (1) to “Strongly Agree” (5) (Table 1).

4 Results and Discussions

4.1 Profile of the Respondents

The demographic profile of the final sample consists of 251 respondents. The largest group of the sample was the age of 22–25 years old (57%), followed by 18–21 years old (22.3%) and 26–30 years old (20.7%). For demographic analysis, it revealed that most of respondents were female with (63.7%), while the male respondents were only 36.3%. The occupations part reveals that most of the respondents are student with the total of 51.8%, followed by 38.6% of employed, 4.8% of self-employed, and lastly with 4.4% of unemployed. Next, for the level of income part, it shows that (52.6%) of the respondents are fall under the category of none income, followed by (31.1%) which are in the category that the income range are between “RM1000–RM3000” (\$241–\$724), after that, (8.8%) of the respondents are under the category of income that the range are below “RM1000” (\$241), followed by (7.2%) of the of the respondents are under the category that the income level is between “RM3000–RM5000” (\$724–\$1207), and lastly, only (0.4%) of the respondents are from the category that the income level are more than “RM5000” (\$1207).

For the state of origin part, the most respondents participate in the study were from Sabah with 37.1%, followed by Johor (14.3%), Sarawak (10.8%), Selangor (8.4%), Kedah (5.6%), Kelantan (4.4%), Pulau Pinang (3.6%), Wilayah Persekutuan Kuala Lumpur (3.6%), Melaka (2.8%), Terengganu (2.0%), Perlis (2.0%), Negeri Sembilan (2.0%), Wilayah Persekutuan Labuan (1.6%), Perak (1.2%), and lastly Pahang with (0.8%).

4.2 Measurement Model Analysis

To assess superiority of the model measurement, the process of convergent and discriminant validities is used (Hair Jr et al. 2017). Table 2 shows that all of the constructs is discriminant toward one and another because the value of HTMT is not exceeding 0.90 (Hair Jr et al. 2017). In Table 3, the data analysis shows that all of the indicators exceed the convergent validity requirement. The value of all the loadings exceeds 0.70, and all of the indicators can be considered as significant. Apart from that, the value of average variance extracted (AVE) for all constructs was above 0.50. Moreover, composite reliability and Cronbach’s alpha of all constructs were more than 0.70. The use of heterotrait-monotrait (HTMT) method is to confirm the

Table 1 Measurement items

Variable	Code	Items	Adapted sources
Perceived Usefulness	PU1	I believe using E-wallet would be useful	
	PU2	I believe using E-wallet would be more convenient for me	Venkatesh et al. (2012)
	PU3	I believe using E-wallet would increase my payment efficiency	
	PU4	I believe using E-wallet would help me pay more quickly	
Perceived ease of use	PEOU1	Using E-wallet is easy as using an actual payment card	
	PEOU2	The usage on how to use the E-wallet is clear and understandable	Venkatesh et al. (2012)
	PEOU3	Using the E-wallet would be easy	
	PEOU4	Learning to use the E-wallet would be easy	
Perceived risk	PR1	E-wallet applications may not perform well	
	PR2	E-wallet applications may not able to process the payments correctly	Featherman and Pavlou (2003)
	PR3	Using E-wallet applications would cause hesitation to make payment	Nguyen and Huynh (2018)
	PR4	There may be caused fraud or lost money when using E-wallet	
	PR5	Unauthorized personal data may be accessed by hackers	
	PR6	The security systems built into E-wallet applications are not strong enough to protect my account	
	PR7	My decision to use E-wallet to perform payment involves higher risk	
Reward	RWR1	I think that special offers/rewards provided by E-wallet are important to me	Aydin and Burnaz (2016)
	RWR2	I think that the availability to e-coupons' redemption by E-wallet is important to me	Saprikis (2018)
	RWR3	I would like to gain benefit from any promotions offered by the E-wallet	
	RWR4	I would like to continue to use E-wallet as long as promotions are being offered	
Intention to use E-wallet	INT1	I'm expecting my usage of E-wallet to increase in the future	
	INT2	I intend to use the E-wallet in the future for payment purpose	Venkatesh et al. (2012)
	INT3	I will recommend the use of the E-wallet to others	
	INT4	I plan to use the E-wallet frequently	
	INT5	I will always try to use the E-wallet to make payment	

Note: All items were measured using 5-point Likert scale (1 = strongly disagree to 5 = strongly agree)

Note: *PU* perceived usefulness; *PEOU* perceived ease of use; *PR* perceived risk; *RWRD* reward; *INT* intention to use E-wallet

Source: Developed based on the literature

Table 2 HTMT discriminant analysis for measurement model

	INT	PEOU	PR	PU	RWRD
INT	–				
PEOU	0.654	–			
PR	0.101	0.098	–		
PU	0.68	0.843	0.142	–	
RWRD	0.724	0.596	0.001	0.614	–

Note: *PU* Perceived usefulness; *PEOU* Perceived ease of use; *PR* Perceived risk; *RWRD* Reward; *INT* Intention to use E-wallet
 Source: own study

Table 3 Internal consistency reliability and convergent validity

Construct	Item	Loadings	AVE	CR	Cronbach’s alpha
Perceived usefulness	PU1	0.846	0.724	0.913	0.873
	PU2	0.877			
	PU3	0.839			
	PU4	0.84			
Perceived ease of use	PEOU1	0.849	0.741	0.92	0.884
	PEOU2	0.889			
	PEOU3	0.868			
	PEOU4	0.836			
Perceived risk	PR1	0.658	0.585	0.907	0.903
	PR2	0.669			
	PR3	0.898			
	PR4	0.84			
	PR5	0.744			
	PR6	0.744			
	PR7	0.713			
Reward	RWRD1	0.868	0.729	0.931	0.907
	RWRD2	0.896			
	RWRD3	0.884			
	RWRD4	0.87			
Reward	RWRD1	0.868	0.729	0.931	0.907
Intention to use	IW1	0.811	0.728	0.931	0.906
E-wallet	IW2	0.871			
	IW3	0.88			
	IW4	0.848			
	IW5	0.855			
	Intention to use	IW1	0.811	0.728	0.931

Note: *PU* Perceived usefulness; *PEOU* Perceived ease of use; *PR* Perceived risk; *RWRD* Reward; *INT* Intention to use E-wallet
 Source: own study

discriminant validity. From the results, it shows that the measurement model has exceeded the least standard of the convergent and discriminant quality features; thus, evaluation of the structural model needs to be conducted.

4.3 Significance and Relevance of the Structural Model Relationships

There are four direct hypotheses that have been developed to test the significance level. SmartPLS 3.0 bootstrapping function is used to generate the t-statistic for all paths. Based on the evaluation of the path coefficient as shown in Table 4, only three of the relationship are found to have t-values ≥ 1.96 , hence significant at 0.05 level of significance. The first predictor is perceived usefulness ($\beta = 0.201, t = 2.942, p < 0.05$). Next, predictor of perceived ease of use with $\beta = 0.171, t = 2.485, p < 0.05$, and lastly, predictor of reward ($\beta = 0.489, t = 9.751, p < 0.05$); both are found to be positively related with intention to use. Thus, H1, H2, and H4 are supported. However, the assessment of other variables is found to be not significant. To be specific, the predictor of perceived risk ($\beta = -0.081, t = 0.683, p < 0.05$) is found to be negatively associated to intention to use E-wallet. Therefore, H3 is not supported. The R^2 for intention to use E-wallet is 0.565 exceeding the value of 0.26 which was suggested by Cohen (1988) which shows the considerable paradigm.

The next process will be assessing the effect size (f^2) of the variables. As stated by Sullivan and Feinn (2012), p-value tells the existence of an effect, but the size of effect does not be informed. In order to evaluate the effect size, this study follows the guideline by Cohen (1988). According to Cohen (1988), the amount of 0.02 is measured as small effects, and followed by 0.15 as medium effects and 0.35 as a large effect. Table 5 shows that the highest effect size is trust and can be considered as large effect.

Table 4 Hypothesis testing

	Relationship	STD beta	STD error	T-value	P-value	Decision
H1	PU \rightarrow INT	0.201	0.068	2.942**	0.003*	Supported
H2	PEOU \rightarrow INT	0.171	0.094	2.485**	0.013*	Supported
H3	PR \rightarrow INT	-0.081	0.094	0.863	0.389	Not supported
H4	RWRD \rightarrow INT	0.489	0.05	9.751**	0*	Supported

Note: PU Perceived usefulness; PEOU Perceived ease of use; PR Perceived risk; RWRD Reward; INT Intention to use E-wallet

Note: * $p < 0.05, t\text{-value} > 1.96$ **

Source: Authors' own calculation

Table 5 Level of effect sizes (f^2)

	INT	PEOU	PR	PU	TRUST
INT					
PEOU	0.029				
PR	0.015				
PU	0.039				
TRUST	0.368				

Note: PU Perceived usefulness; PEOU Perceived ease of use; PR Perceived risk; RWRD Reward; INT Intention to use E-wallet

Source: Authors' own calculation

5 Conclusion

The aim of this study is to evaluate the factors that affect youths' usage intention towards E-wallet and gives a review in the literature on the factors that effect youth usage intention which are the factors of perceived usefulness, perceived ease of use, perceive risk, and reward. The technology continuously transforming from one period to another period. Hence, for sure the advancement of payment method will be more unique and advance in the future. However, cash is still the top method of payment that is being used by Malaysian. New method or tactic is needed in order to overcome this issue. In fact, this research used TAM model as an underpinning theory and proved that perceived usefulness, perceived ease of use, and reward have a significance effects toward the usage intention of E-wallet among youth, while perceived risk has no significant effect toward E-wallet usage intention.

Consumers in Malaysia tend to use this new technology payment if they found it is easy to be used and useful to them. Risk will be the major factors that makes consumers to have no interest to use this new technology payment. From that, the service providers or the government should take a quick action to this matter and try to create more new ideas that can make the consumer attracted more and encourage them to use the updated technology method of payment in the future and also strengthen the security system of this E-wallet so that when the consumers used this method of payment, they will feel secure when using it. Moreover, the service provider also should provide more rewards so that the consumers are willing to use this new technology payment. This is because most of the consumers in Malaysia tend to be attracted to better rewards which can give more benefits to them.

This study also has a limitation where most of the study is focusing more on e-payment, e-banking, and e-commerce, and limited study was conducted in the context of E-wallet. As for recommendation for future research, researchers can extend the study by measuring other factors by adding new variable such as perceived enjoyment because there is limited study that uses this variable specifically in the context of E-wallet in Malaysia. This study only focuses on youths; therefore, future research can change the target respondents to older consumers. As for conclusion, this study hopes to provide some insight and complete the literature which currently exists with regard to perceived usefulness, perceived ease of use, perceive risk, and reward among Malaysian youth toward the E-wallet usage intention.

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Intention to Consume Functional Foods in Malaysia Among Older Consumers: Application of the Health Belief Model



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Abstract Food consumption pattern is changing toward healthy food due to numerous health threats which lead to product development in the functional food sector as market demand for healthy foods. The functional food is believed to help people with other chronic illnesses because of unhealthy eating habits. So far, there is only a little knowledge on factors influencing consumers' intention to consume toward functional food and what their perception toward functional foods in Malaysia. The Health Belief Model (HBM) is employed in this study. Hence, the purpose of this paper is to examine consumer intention to consume toward functional foods. Perceived susceptibility, perceived barriers, perceived benefits, and cue to action are expected to have an impact on the intention to consume toward functional foods. The results show that perceived barriers and perceived benefits have a direct effect on intention to consume toward functional foods. However, perceived susceptibility and cue to action have no direct effect on intention to consume functional foods. A survey of 250 older consumers was conducted in Malaysia using offline questionnaires. SPSS 24 and Smart PLS 3.0 were used to analyze the collected data. This study attempts to contribute to the consumer behavior literature by recognizing the factors that influence functional foods consumption among older consumers.

Keywords Functional Foods · Intention · Food consumption · Health Belief Model and Malaysia

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1 Introduction

Globally, the demand for functional foods is rising, new products are constantly being introduced, and competition is increasing (Menrad 2003). Similarly, Malaysian consumers are also experiencing this trend because of a rapid shift in consumer preference for food choice, consumer lifestyle, and food consumption habits (Rezai et al. 2012). As for Malaysian consumers, the recent changes in their food consumption habits reflect safer types of foods that have medicinal ingredients that can prevent or cure certain diseases due to the growing interest in functional foods. In Malaysia, tongkat ali and kacip fatimah are among the most popular types of functional food which have been promoted and commercialized since it is appealed that these products provide many health benefits for the body (Rezai et al. 2012).

Functional foods are foods that can improve the well-being in addition to basic nutrition (Bech-Larsen and Grunert 2003a, b). This simple definition also correlates with the broad proposal for a functional selling of foods, where functional foods allow consumers to lead a healthy life without changing their eating habits (Jonas and Beckmann 1998). Functional foods, however, contain bioactive or enhanced nutrient-friendly components, as well as being able to provide protection that can reduce the risk of chronic disease (Lau et al. 2013). In general, the definition of functional foods is not conclusive, as various countries have different definitions of functional foods (Alzamora et al. 2005).

Nowadays, according to National Diabetes Institute (NADI) in Asia, the highest rate of diabetes is Malaysia. In addition, 3.5 million Malaysians have diabetes, 6.1 million are suffering with hypertension, and 100,000 people suffer from cancer each year, and this indicates that Malaysia has a chronic health problem (Thavarajah 2016). Apart from that, consumers demand on foods that will provide nutrition as well as to prevent disease, enhance mental health, and develop the quality of life (Bech-Larsen and Grunert 2003a, b). The existence of functional food could help individuals from getting certain chronic diseases (Wells et al. 2017). This study aimed to investigate Health Belief Model (HBM) which the consumers have choices and are able to make suitable decisions regarding their health. In addition, the Health Belief Model has been acclaimed for its potential to predict healthy eating among adults (Barnett 2017). However, previous studies indicate that age, gender, education, presence of young children, and presence of sick family members emerge as sociodemographic determinants of functional food acceptance (Kaur and Singh 2017). The purpose of the present study is therefore to investigate the effect of the Health Belief Model (HBM) toward intention to consume functional foods.

The remainder of this paper is divided into five sections. The second section introduces literature review and hypothesis development. The third section describes methodology. The fourth section demonstrates result. The fifth section discusses the conclusion.

2 Literature Review and Hypothesis Development

2.1 *Functional Foods*

“Let food be your medicine, let medicine be your food” is the theory of Hippocrates, some 2500 years ago (Hasler 1998). Early evolutions, from Greek, Egypt, and India to China, recognized food as medicinal products. In this modern era, rising health issues have prompted increased interest in diet and proper nutrition to preserve health while preventing disease among humans. Titled “the role of food and food ingredients in self-medication and disease prevention,” the Food Technology Trend Report is the overall number one trend facing the food industry in the future (Sloan 1994).

Based on a customer surveys where tomatoes, broccoli, fish or fish oil, green leafy vegetables, orange or orange juice, carrots, onions, protein, milk, and oats or oatmeal also rank among the top ten in functional foods (Toner and Pitman 2004). Soy protein, cranberries, and flaxseed (IFT panelists 2005) and probiotic yogurt, nutritious cereals, and omega-3 eggs are a variety of unmentioned examples (Nor et al. 2016). Besides the known and related core nutrients to positive health benefits, each of these foods contains bioactive elements (IFT panelists 2005).

2.2 *Health Belief Model (HBM)*

The Health Belief Model (HBM) is used as a framework for modifying habits and rising diseases (Rosenstock and Kirscht 1974). The Health Belief Model (HBM) demonstrates the relationship between health beliefs and health behaviors based on the premise that preventive habits can be developed on the basis of personal beliefs (Janz et al. 2002). The Health Belief Model (HBM) also considers actions to be a feature of an individual’s experience and attitude (Davari et al. 2011).

The Health Belief Model emphasizes the following general rule where people respond well to the health message and seek to avoid disease only when they see a severe danger called perceived threat and perceive benefits that can be gained by modifying a specific behavior in a situation where they can easily resolve obstacles that could impede such changes (Heidarnia 2003). Moreover, the Health Belief Model (HBM) has been praised for its ability to predict balanced adult eating (Kloeblen and Batish 1999). The Health Belief Model constructs are perceived susceptibility, perceived barriers, perceived benefits, and cue to action.

2.3 Measuring the Health Belief Model (HBM)

2.3.1 Perceived Susceptibility

Disease susceptibility may influence the probability of disease incidence, but disease susceptibility does not automatically imply a high risk of disease (Brewer et al. 2007). According to Ng et al. (2009), the perceived vulnerability is critical in deciding individual computer security behaviors. In this context, perceived susceptibility refers to the probability that when applied to exercise caution with email attachments, a customer is a case of defense taking the role and influences of computer security actions of a client. In fact, if customers are aware of the possibility of risks (perceived susceptibility), they will make the right decision to behave the required preventive behavior. Conversely, in cases of tuberculosis, perceived vulnerability is not important (Llongo 2004). This research focuses on exploring disparities between stable and unstable for dysfunctional within the community based on housing. The findings suggest that those residing in insecure housing retained more positive general values and treated care with tuberculosis as more effective than those living in stable living arrangements.

According to McQueen et al. (2008), perceived susceptibility is expected to start the precautionary adoption process, and it is important to understand which factors predict or decide these perceptions of risk. Individual susceptibility is a strong belief that can lead to healthier habits being embraced by people (Rezai et al. 2017). Therefore, the higher the perceived susceptibility by the customer, the more likely it is that he or she will take preventive action to lower the risk, or eat functional foods as in this study (Rezai et al. 2017). According to Chen (2007), perceived susceptibility can influence individuals to get influenza vaccinated, eat healthy foods, and use sunscreen to prevent skin cancer. Hence, personal vulnerability is a powerful conviction which can lead people to adopt healthy behaviors.

2.3.2 Perceived Barriers

Perceived barriers refer to a person's appraisal of the possible difficulties like limited time that curtail him or her from appealing in a health behavior (Brown 2005). Perceived barriers to receiving mental health and behavioral care have been recognized as a main challenge in the delivery of such services, and the requirement for research in this area has often been expressed (Becker et al. 2014). Brown (2005) holds the view that these determinants have been counted in few models of health behavior, particularly the Health Belief Model as well as in a modified model.

According to Nagelkerk et al. (2006), perceived barriers are lack of awareness and comprehension of a particular diet plan, as well as treatment plan and self-management impotence. The detection of individual barriers is therefore one of the main strategies for promoting integration. Furthermore, perceived barriers to successful self-management that are frequently prevalent for depression, weight issues,

trouble exercising, exhaustion, and financial difficulties and lack of understanding, insurance coverage costs, as well as physical symptoms can be categorized under the most common difficulties to accessing self-management support services (Jerant et al. 2005).

2.3.3 Perceived Benefits

Perceived benefits that if an individual understands personal susceptibility to a vital health condition, this recognition will result in behavioral change may be influenced by the beliefs of the individual regarding perceived benefits from multiple open actions to minimize disease risk (Glanz et al. 2008). According to Chandon et al. (2000), in response to perceived threat, perceived benefits are perceptions about the positive effects associated with the behavior. Besides, perceived benefits can be seen from non-health-related perceptions, for instance, the influence of behavioral decisions where the monetary savings associated to quitting smoking by having mammogram. Therefore, individuals put on view ideal views in susceptibility as well as benefits are not predictable to agree any suggested health action except they also perceive the action which possibly favorable by decreasing the threat.

Lau et al. (2013) reported that the perceived benefits of price gain, convenience benefit, and recreational benefit have a positive impact on the attitudes of consumers toward group purchases. One transaction may include several buyers in group buying, most of whom are strangers to each other where they meet on the basis of a single, shared purpose. Nevertheless, the perceived benefits arising from pleasure and usefulness are not relevant to the purpose of adoption (Kim et al. 2007). This study is in the sense of the adoption from a value perspective of the mobile Internet (M-Internet) as a modern information and communication technology (ICT).

2.3.4 Cue to Action

According to Stawarz et al. (2015), cue to action is the assumption that a particular activity is accepted, endorsed, and approved by a critical person or group of people. Cue to action is motivated by perceived social pressure from other people to respond in some way, as well as their desire to follow one's own values (Stawarz et al. 2015). Conner, McEachan, Lawton, and Gardner (2017) mentioned that the opinion of the conceptualization in specific cue to action indicates that the consequence is a weak relationship between normative principles and intentions. In addition, if perceived risk and benefits are high, and perceived obstacles are low, there will be greater effect on signaling actions (Glanz et al. 2008).

According to Tarkiainen and Sundqvist (2005), the result on the relationship between cue to action and attitudes toward buying organic food is significant, and it can be seen that attitudes toward buying organic food and cue to action are not independent from each other. In contrast, according to Stawarz et al. (2015), the intention to purchase green food items was found to have a statistically significant

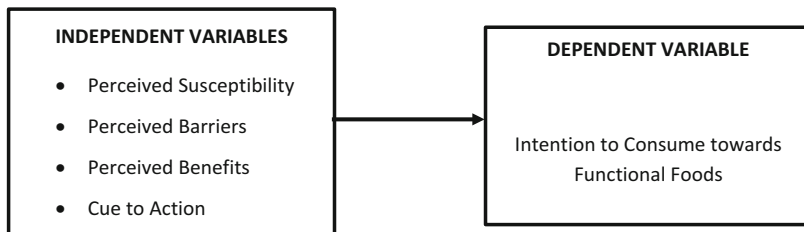


Fig. 1 Research framework. Source: Adapted by Hochbaum (1958)

correlation to cue to action. This is where cue to action is determined by beliefs about the degree to which significant others want them to act a behavior (Rivis and Sheeran 2003). Accordingly, the following hypotheses are suggested (Fig. 1):

H1	:	There is a positive relationship between perceived susceptibility and intention to consume toward functional foods.
H2	:	There is a negative relationship between perceived barriers and intention to consume toward functional foods.
H3	:	There is a positive relationship between perceived benefits and intention to consume toward functional foods.
H4	:	There is a positive relationship between cue to action and intention to consume toward functional foods.

3 Methodology

Offline questionnaire survey was conducted at the shopping malls to gather data for this study. The selected shopping malls are among Malaysia’s top shopping malls. The data was collected around 2 months from April to June. All elements used in the questionnaire are taken from previous research (Jung et al. (2018), which assess the intention on consumers to eat healthy foods. The questionnaire consists of 15 items on perceived susceptibility, perceived barriers, perceived benefits, and cue to action and 5 items on intent to eat functional foods in shopping malls using a five-point Likert scale ranging from 1–5 denoting strongly agree to strongly disagree.

For this study, the population is older consumers aged 55 to 75 years old. The researcher distributed questionnaires to 300 respondents. A total of 250 questionnaires were deemed suitable for further study after eliminating all unusable responses, showing a successful response rate of 83 percent.

4 Results

Using SPSS 24 and Smart PLS 3.0, the data collected were analyzed. Statistical Package for the Social Sciences (SPSS) version 24 was used for data entry and screening. An application of structural equation modeling (SEM) was used to verify the validity of the construct, and hypothesis testing (direct effect) for the measurement model and structural model and further analyzes the relationships between the constructs under investigation in this study.

The aim of a measurement model is to explain how well the observed indicators for the latent variables act as a measuring instrument. Hair Jr et al. (2016) found out that each element must explain at least 50 percent of the variance of the given measures in order to obtain reasonable convergent validity ($AVE \geq 0.50$). All items are kept in this study ($ACE \geq 0.50$). Table 1 shows the average extracted variance (AVE) scores for perceived susceptibility (0.700), perceived barriers (0.596), perceived benefits (0.651), cue to action (0.765), and intention to consume (0.673).

The purpose of performing the analysis of the structure was to test the impact of the Health Belief Model (perceived susceptibility, perceived barriers, perceived benefits, and cue to action) on intention to consume functional food. Perceived susceptibility was measured using six items and perceived barriers and

Table 1 Internal consistency reliability and convergent validity

Construct	Item	Loadings	AVE	CR	Cronbach’s alpha
Perceived susceptibility	PS1	0.570	0.916	0.932	0.700
	PS2	0.895			
	PS3	0.914			
	PS4	0.888			
	PS5	0.856			
	PS6	0.845			
Perceived barriers	PBR1	0.901	0.659	0.81	0.596
	PBR2	0.570			
	PBR3	0.806			
Perceived benefits	PBT1	0.914	0.712	0.842	0.651
	PBT2	0.906			
	PBT3	0.544			
Cue to action	CA1	0.931	0.846	0.906	0.765
	CA2	0.925			
	CA3	0.758			
Intention to consume	IC1	0.552	0.874	0.909	0.673
	IC2	0.729			
	IC3	0.914			
	IC4	0.935			
	IC5	0.905			

Note: AVE Average variance extracted; CR Composite reliability

Source: Developed by the authors based on Gold et al. (2001)

Table 2 Hypothesis testing (direct effect)

Hypothesis	Relationship	Std. Beta	Std. error	<i>P</i> value	Decision
H1	Perceived susceptibility Intention to consume	0.014	0.033	0.338	not supported
H2	Perceived barriers Intention to consume	-0.138**	0.047	0.002	supported
H3	Perceived benefits Intention to consume	0.643**	0.067	0.000	supported
H4	Cue to action Intention to consume	0.056	0.074	0.226	not supported

Note: *t*-value = 1.96 at $p < 0.05^*$, *t*-value = 2.58 at $p < 0.01^{**}$

Source: Authors' own calculation

perceived benefits were both measured using three items, while intention to consume was also measured using five items.

The structural model assesses the relationship between the independent variables and dependent variable according to the measurement model and validity in this analysis (Table 2). It has been confirmed that the relationship between perceived susceptibility and intention to consume has no direct effect (t value = 0.417, $p = 0.338$). Thus H1 is not supported. Perceived barriers demonstrated a direct impact on the intention to consume (t value = 2.951, $p = 0.002$), and hence H2 is assisted. It was confirmed that the relationship between perceived benefits and intention to consume had a direct effect (t value = 9.549, $p = 0$). Therefore, H3 is supported. The final hypothesis was related to the relationship between cue to action and intention to consume. The results indicate that there is no direct effect of cue to action over intention to consume (t value = 0.753, $p = 0.226$). Consequently, H4 is also supported. This was similar to the findings of another study conducted by Vassallo et al. (2009); the perceived benefits and barriers were good predictors of willingness to use functional breads, whereas perceived susceptibility and cue to action failed as predictors.

5 Conclusion

The purpose of this study was to analyze the relationship between intention to consume functional food and food consumption in the Malaysian context. The research gathered detailed information on functional foods and functional food concepts across various countries. The goal of the efforts is to provide strong perspective of functional foods and their definition and how they are viewed in other countries as compared to Malaysia. With previous findings, the findings of this empirical research have shown that perceived obstacles and perceived benefits have a direct impact on the decision to eat healthy foods. However, perceived

susceptibility and cue to action does not have direct impact on intention to consume functional foods.

It has also been found that older consumers have a higher propensity to eat nutritious food compared with younger consumers. Verbeke (2005) claimed that the health issues faced by older consumers explained the relationship. Nevertheless, according to Rezai et al. (2012), younger consumers are more aware of, and more interested in, nutritious food than older people. Other than that, older consumers were more health-conscious than younger ones, since they are more likely to be infected with a certain disease. Older people were also more attentive to food choice because of the perceived association with higher food risk aversion.

As a final note, this research was focused on the response of older consumers between the ages of 55 and 75; hence the findings reflect the population of Malaysia. Other groups should be examined, such as teens and students at the university, who may have specific intention of eating functional food. The need for accurate knowledge and communication activities exists due to inadequate understanding of functional ingredients and their health effects among consumers. Therefore, partnerships between academia and industry will be critical for future research and development and for the growth of local functional food (Tee 2011).

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The Effects of Experiential Values to Mall Repatronage Intention in Kota Kinabalu Context



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Abstract The aim of this study is to examine the effects of experiential values to mall repatronage intention in Kota Kinabalu context. Emotional value, social value, and sensory appeal value are classified as the experiential value effects, which are identified in the dimension of consumption values. This study is set as a quantitative study with sample size comprising 250 Kota Kinabalu patrons from the 4 major shopping malls with different characteristics in this city involving 1Borneo Hypermall, Suria Sabah, Karamunsing Complex, and Imago. Results of this study found that emotional value has a significant impact on mall repatronage intention. This indicates that positive emotional value predicts an increase in the patronage intention in the shopping mall. Apart from that, another important finding in this study is that sensory appeal value also has strong effect to the patrons attracted to repatronize the mall. These findings strengthen the three dimensions from consumption values theory and behavioral intention which hold that emotional value, social value, and sensory appeal value are important factors affecting mall repatronage intention. Lastly, this study provides essential understanding of the way contemporary Kota Kinabalu patrons can be effectively segmented and targeted by retailers and marketers among existing shopping malls with another soon to be developed around the city.

Keywords Shopping mall · Experiential values · Repatronage intention · Kota Kinabalu · Malaysia

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1 Introduction

According to Malaysia Retail Chain Association (2018) report, from the current 10% over the next 5 years, the accelerated growth of the Malaysian retail contribution to gross domestic product (GDP) could grow to 15%. The report also mentioned that in the second quarter of 2018, retail industry in Malaysia reported a 2.1% growth rate in retail revenue relative to the same time in 2017. As a result, some merchants reported the rise in sales of 30%, while others only enjoyed a 10% boost after the 0% Goods and Services Tax (GST). Retail products with high value added, such as athletic equipment, luxury goods, electrical appliances, mobile devices, electronics, and furniture, enjoyed higher sales relative to basic items, general fashion goods and household goods. There is tremendous potential for the local retail sector, amid concerns about a retail space surplus. The malls therefore have to be social and have new shopping trends to customers repatronize Lum (2018).

Mainly, in Kota Kinabalu, Sabah, East Malaysia, shopping malls have expanded exponentially in almost every neighborhood. Today, new malls have been built that compete with the existing ones. From only a few of the oldest malls, such as Wisma Merdeka, Karamuning Complex, Wawasan Plaza, KK Plaza, and Center Point, more operational malls are to be developed in Kota Kinabalu City (Daily Express Online 2015). The new malls created vary in size and architectural style and yet are conveniently located. Several of them are Suria Sabah, Grand Merdeka, City Mall, Oceanus, 1Borneo, and Imago. Since a number of malls rise, numerous consumers in developing countries have shown credibility to some of these malls that adequately meet their preferences.

Changing patterns of consumption have contributed to improvements in the way customers buy and also led to people visiting the shop. Hence, customer experiential value is one of the key factors in deciding the preference of a specific store. Sadachar and Fiore (2018) describe experiential values as a behavioral force that takes consumers to the store in order to satisfy their needs and wants.

By offering a larger range of product offerings and making it easy for consumers to handle access to multiple stores, retailers have acknowledged this advantage and are increasing shopping flexibility. Shopping becomes for some buyers, the possibility of purchasing bargains. This provides an opportunity for others to socialize with others or even a chance to be known from the boring everyday work (Reid and Brown 1996). For similar purposes, such as convenience, hospitality, lovely decor, and so on, two customers will shop inside the same store. Conversely, the customer's approach to shopping may be somewhat different from those of other consumers. One consumer may think like shopping is a hassle, one thing can be achieved easily with limited effort, while another consumer can love shopping and engage by having satisfied at a reasonable price with the purchase of the preferred item. The latter is not bothered to waste time searching for alternatives.

Previous scholars have applied service quality on repatronage intention, lesser research using the theory of consumption value to influence repatronage intention. This study examined how the consumption values impact on patron to repatronize

the mall. Sheth et al. (1991) developed consumption values theory and proposed three from the five factors known as sensory appeal value, social value, and emotional value. There are various studies as to the causal impact of the consumption values on intention of behavioral (e.g., Babin et al. 1994; Dagger et al. 2007; Sheth et al. 1991), but this paper complements the observations by analyzing each factors of the experiential value on the intention of mall repatronage, which is known to be an significant variable in the marketing literature.

The main goal of this research is to develop a deeper understanding of the determinants of the repatronage intention of the customer by reconfiguring the dimension structure of consumption value and empirically testing this development of a conceptual framework in the context of Kota Kinabalu malls. Mall developers or managers are supposed to have insights on how to maximize and boost the experiential value that will inevitably produce good repatronage behavior.

The content of this paper is arranged as follows. Continuing to follow the overview, a study of experiential value and repatronage literature lays the basis for a conceptual model of three influences of experiential value and repatronage intention. Next will be the research methodology, and three more last parts are findings of empirical study, discussion, and conclusion.

2 Why Shopping Mall in the Context of Malaysian Country in Sabah's City?

Several more malls have been established, and each stands between a new mall with an old mall, and some are worried about being a “ghost mall” in Kota Kinabalu (Sanjugtha 2017). Each mall varies according to the nature of the majority of the products or services provided and its design specialness, which symbolizes its prominent features and serves to reinforce the attention of its patrons. Even then, there seems to be a mall where the patrons become less interested to enter without understanding what reasons impact their decision to go to the mall, though products and services are readily accessible. This appears to be the problem because there is a disparity in one mall, which has far less patrons relative to other malls that are quite crowded (Daily Express Online 2015).

There is also no wonder that often actions were being designed from every mall for the patrons and retailers to connect, but limited extensive studies by Sadachar and Fiore (2018) have provided the information on the experience that the patron has gained from the value of the activity, whether someone has a favorable or unsatisfying impact that causes their emotional value and social value in order to intent to patronizing a mall or vice versa. These scholars have found out that poor retail and mall management plans have had an impact on the sensory appeal value of the patrons and also on their emotional and social values. Another research, written by Lum (2018), claimed that considering the numerous strategies and tactics that

marketers have embraced, the decline in the number of patrons visiting the mall was still substantial at an unpleasant level.

3 Literature Review and Theory Development

3.1 Experiential Value

Experiential values as a behavioral factor that takes a consumer to the market to satisfy their internal needs (Sadachar and Fiore 2018). The values are grouped into three broad categories, namely emotional value, social value, and sensory appeal value.

3.2 Emotional Value

In the research conducted by Sweeney and Soutar (2001), emotional value relates to the benefit obtained from the product's sentiment or emotional condition of the individual. Generally, market research is based on the functional benefits of products and services. Nevertheless, more literature have recently been undertaken on emotional or hedonic principles, indicating that consumers also buy items of emotional or enjoyable interest in response to task-related advantages (Holbrook and Hirschman 1982). Consumers should also consider the practical advantages of a product before making a buying decision, such as clothes (breathability, warmth) and vehicle (gasoline quality) and physiological advantages (aesthetic styling) as example. Holbrook and Hirschman (1982) believe that the multisensory, imaginative, and emotional element of consumer behavior is hedonic value. It derives from experiencing enjoyment, leisure, amusement, creativity, awakening, and enthusiasm (Dhar and Wertenbroch 2000). Contentment or emotional value applies not only to actual things but to shopping habits such as "it's fun" browsing (Bloch and Richins 1983). Shopping's emotional value can be related to a variety of psychological or emotional factors, including relaxation, enjoyment, arousal, high engagement, escapism, and imagination (Holbrook and Hirschman 1982).

One scholar, Mann (2012) added the concepts of Batra and Ahotla (1990) and Spangenberg et al. (1997), claimed that because both pleasure and utilitarianism affect use, the significance of these benefits may vary from product to product and situation. For instance, hedonic values may be significant in the use of a related product such as painting, while utilitarian benefit may be favored in the case of usable products such as toothpaste. In turn, consumers can make stronger trade-offs between the two benefits when selecting products with functional and technological benefits, such as armchairs. Chitturi et al. (2007) studied this trade-off process and discovered that where the preference set satisfies utilitarian or functional requirements, consumers give greater attention to determining the pleasure benefit of the

item, which is considered the dominant position of the hedonic phenomenon. Chitturi et al. (2007) finding also reveals that higher hedonic value is a major factor in deciding the ability to pay for the item. However, Okada (2005) suggests that it is paradoxical that the intrinsic nature of hedonic value-based consumption makes spending on hedonic products and functional products very challenging. In addition, Okada (2005) proceeds to argue that it is more difficult to measure the benefits of hedonic value and that there may be a feeling of guilt associated with hedonic goods. She also indicates that when it is determined that they can show this, people would be more likely to consume hedonic products, which is aligned with research by Chitturi et al. (2007). The results suggest that if utilitarian desires are met, consumers may pay more attention to the value of hedonism, which can result in more optimistic emotions than guilt.

According to Chitturi et al. (2008), the effects of hedonism improve customer satisfaction by evoking joy and happiness. It has also been decided that hedonic value-based consumption promotes greater involvement and engagement (Spangenberg et al. 1997). Okada (2005) has shown that consumers are more likely to invest energy and time on hedonic products, suggesting that hedonic consumption will lead to increased engagement and involvement.

Shopping experience often leads in these emotional responses, and in certain situations buying behavior may be a continuation of experience (Babin et al. 1994). In local customers in developing countries such as India, Kumar et al. (2008) have discovered that a healthy outlook toward American brands' emotional value is a significant indicator of purchasing intent. Similarly, Kumar et al. (2010) have found that the satisfaction of retail stores is a major indicator of local consumer patronage intentions. The expected emotional value being one of the results of experience value associated with retailers in the mall can therefore be a key indicator for Kota Kinabalu's patrons of the mall repatronage intention to be important to this study.

3.3 Social Value

Social value is also known as the usability obtained from the ability of the product to encourage social self-concepts (Sweeney and Soutar 2001). In addition to shopping or looking to buy with emotional value, product lovers also purchase products to improve their self-conception (Babin et al. 1994). In order to create a subjective perception named self-image or product-image consistency or self-consistency (Sirgy et al. 1997), self-concepts are theoretically designed to communicate with brand user representations. The theory of self-consistency also defines the view of self-consistency (Sirgy 1985), which suggests that the coherence of the image of the product user and the self-conceptual cognitive comparison of the customer (e.g., true self-image, desirable self-image, public self-image) can drive consumer behavior through self-conceptual motivation, such as self-consistency and self-esteem. Consumers experience greater level of self-consistency when they see a better fit among both product user image and self-image (Sirgy et al. 1997). Strong self-consistency

has been shown to produce a more optimistic attitude to products or brands (Sirgy et al. 2000).

Since the psychological contrast of the product images can be achieved by a real self-image (a self-image of one person), a desirable self-image (a self-image that one wants to hold) or a public self-image (a self-image of one person) that others intend to see, the social value of the product is linked to social self-consistency (Sirgy 1985). The degree to which social self-consistency is identified as the social self-image of the customer and the identity of the product gave importance to the ownership of the product (Sirgy et al. 2000). The expansion of social self-consistency is the perceived social self-consistency, which refers to the extent of correspondence between the proper social self-image of the patron (the self-image that everyone wants to see) and the image of the product (Sirgy 1985). The social value of the product may also be relevant in this context, allowing consumers to judge the product on the basis of the likelihood of receiving approval from others (Day and Crask 2000). Social value can be a key factor in the purchase of highly visible items, such as vehicles and clothing, for the benefit of others (Sheth et al. 1991). In addition to allowing others to promote social involvement, the act of seeking recognition can be a critical factor in influencing the social value of a product (Chaudhuri and Majumdar 2006).

Status-seeking behavior occurs when customers purchase wealth-promoting products and achieve higher social objectives (Bagwell and Bernheim 1996) or as contrary to conventional ones. Veblen's groundbreaking research on finding status (1922) distinguishes itself as an act of conscious experience, and its status concerns play a large role. The act of seeking status is also known as the act of seeking prestige, so that patrons give clear or ranked consumption reflecting identity and wealth (Cass and McEwen 2004; Sheth et al. 1991; Vigneron and Johnson 1999). Although rampant consumerism and status consumption are mostly used as one and the same in studies, Cass and McEwen (2004) differentiate between the two that consumers seek to achieve popularity through the purchase of reputation-based products and brands, while rampant consumerism focuses on the visual appearance or obvious use of goods rather than others.

3.4 Sensory Appeal Value

There is no specific meaning of the value of the sensory appeal in consumer value theory. However, a study by Sadachar and Fiore (2018) established a sensory appeal value derived from the elements of the retail environment. Senses of the patron (Smith and Colgate 2007) include retail ambient architecture, unique visual design, and aesthetics (Holbrook 1994; Mathwick et al. 2001). The layout of a retail store appears to require not only practical aim, such as simple movement in shops, but also item that is easy-to-find and has a unique structure (Singh 2006), as the glamorous view of the window shows. By making use of lavish creations, layouts, colors, and atmospheric conditions (such as smell, temperature, lighting, music), retailers are

developing an attractive atmosphere to choose patrons at the retail store (Singh 2006), which can only be relaxed and enjoyed by patrons. Restaurants and some retailers emphasize sensory value, which has to do more with aesthetic appeal (Smith and Colgate 2007). Consumers who believe that purchasing experience is more than just a practical task are actually responding to the sensory element of the retail environment (Singh 2006). The value of the sensory appeal is therefore considered to be crucial in this study.

3.5 Repatronage Intention

Define as an overall measure of the willingness and likelihood to shop, repurchase, and so others can be endorsed (Grewal et al. 2003). Providing superior value to local consumers is one of the most dependable ways of achieving the repatronage of a shopping mall (Ghosh et al. 2010) and considering the critical factor influencing consumer behavior as a perceived value (Gallarza and Saura 2006). Past studies (Keng et al. 2007) shows that having behavioral intent has a significant effect on perceived practical value. Meanwhile, Kumar et al. (2008) found that local consumers in India were gaining positive emotional value from American brands, which had a positive effect on their purchase intentions. Similarly, the emotional value of retail stores also gives local consumers the intention of patronage (Kumar et al. 2010). In addition, Mann (2012) found that when perceived behavioral influence (such as affordability) is introduced as a trigger, perceived emotional interest is a major predictor of local consumers' willingness to purchase Western store formats, such as shopping centers. Social values play an important role in the purchase of items such as jewellery and clothing (Sheth et al. 1991), and the social value of retail stores motivates local consumers to purchase from such retail stores.

Under the same roof, the mall has a number of exclusive domestic and foreign brands making it an exclusive destination (Varman and Belk 2012). Visiting these retail stores is interpreted as an act of looking prestige and has great social significance for local patrons (Mann 2012). Such access may eventually lead consumers to purchase state-of-the-art products from retail stores at the mall. Patrons react positively to the retail environment's sensory elements (Singh 2006). The importance of the sensory appeal may also have an impact on the consumer's intention to repatronize the store. The sensory appeal of retail stores and the non-store elements of the mall create an impression of enhanced purchase (Gallo 2012). A sensory shopping experience allows the brain to connect emotionally with goods or services and stimulates purchasing intentions (Gallo 2012). Therefore, this dependent study variable performed by Sadachar and Fiore (2018) is selected for this research.

3.6 Conceptual Framework Development and Hypotheses Tests

Based on prior research studies included in the literature review, the author developed a conceptual framework as shown in Fig. 1.

From the above discussion and framework, the following hypotheses were developed:

H₁: There is positive relationship between emotional value and mall repatronage intention in Kota Kinabalu context.

H₂: There is positive relationship between social value and mall repatronage intention in Kota Kinabalu context.

H₃: There is positive relationship between sensory appeal value and mall repatronage intention in Kota Kinabalu context.

4 Methodology

Approximately 250 patrons, as a sample, have obtained adequate information to be assembled and to be covered if any of the questionnaires obtained are invalid in the case of a mistake being made by the respondent. This survey was conducted in four major existing malls in Kota Kinabalu, such as Suria Sabah, Imago, Karamuning Complex, and 1Borneo Hypermall.

Both general conduct of the test framework and the additional data for the specific segment of the study have been adequately utilized by a very well-designed questionnaire. A questionnaire is a multistage procedure that has been carried out with a view to finalizing and analyzing the results of this research.

Subsequently, predictive interpretation criteria have also been addressed after the underlying evidence has been evaluated. All the information was analyzed using the program, i.e., IBM SPSS Statistics 24 and Smart PLS 3.0. The data analysis was performed in two phases: a quantitative study and a test of hypotheses. The Statistical Package for Social Sciences 24.0 used the frequency of demographic features of the respondents. Smart PLS 3.0 was used to run reliability and test hypothesized relationships.

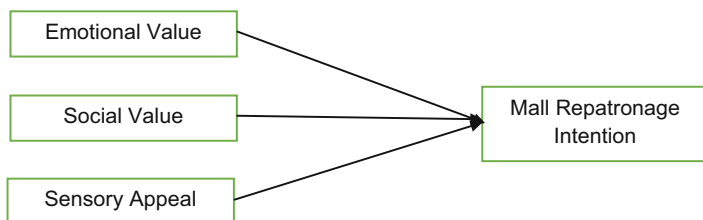


Fig. 1 Proposed research framework. Source: own study

Gefen et al. (2000) stated that the structural equation modeling (SEM) approach is an observable tool that lets researchers determine the overall approach and analyze the general model together. As a consequence, SEM has the benefit of quantifiable testing of conceptual hypotheses against experimental data. As shown by Barclay et al. (1995) and Chin et al. (2003), SEM can analyze the parameters or characteristics of the scales used to measure the dramatic changes and forecast the hypothesis of the relation between the frameworks. Other than that, SEM can answer at all times and address interrelated research enquiries either by estimate or by simple model.

As suggested by Hair Jr et al. (2014), it was reported that the demonstration of PLS-SEM results in the full use of the actual fluctuation of the needed causes. The minimum square approximation for multipart and single-segment models was used in this approach based on the expertise of the PLS-SEM method. The other expert boost and accepted PLS-SEM describe the basic model as a strong assumption (Henseler et al. 2009). A run of thumbs is proposed by Hair et al. (2011) when using CB-SEM or PLS-SEM research methods.

5 Results

A data collection duration of 6 weeks culminated 250 functional surveys (i.e., respondents) from 4 malls. Descriptive statistics were performed on the demographic features of the respondents. Table 1 provides the respondents with demographic characteristics. The majority of respondents were female (67.7%), were under the age of 25 (58%), and were single (68.4%). Many of the respondents earned a bachelor's degree (50%). About one-third of respondents (19.2%) had received an SPM. Approximately one-third (27.6) of the respondents were in full-time jobs. A majority of respondents (73.2%) registered more than RM5000 on a monthly household income.

Factor analysis was performed for experiential values (i.e., emotional, social, and sensory appeal) and mall repatronage intention-related items. The items per factor followed the structure suggested by the original scales (Grewal et al. 2003; Mathwick et al. 2001; Sweeney and Soutar 2001) and had an appropriate degree of internal consistency (Nunnally et al. 1967) with α -value greater than 0.70 for Cronbach. Correlations were important among all research variables and ranged between 0.896 and 0.911.

The results for internal consistency (CR) values with all variables are as follows: emotional value (0.954), social value (0.951), sensory appeal value (0.954), and mall repatronage intention (0.939) (Table 2). Composite reliability (CR) values for each constructs range from 0.939 to 0.954 and are therefore considered to be acceptable. According to Gefen et al. (2000), a value higher than 0.60 is acceptable in exploratory research. In relation, composite reliability (CR) values are expected to be higher than 0.70 (Hair et al. 2011). Moreover, the values of Cronbach's alpha (α) for each of the constructs were observed, and these values were found to be acceptable as they ranged from 0.748 to 0.936. According to Nunnally (1971),

Table 1 Demographic characteristics of the sample

Variable	Description	Frequency	Percent
Malls	1 Borneo	60	24
	Suria Sabah	60	24
	Karamunsing Shopping Complex	46	18.4
	Imago	84	33.6
Age	18 and 25 years old	145	58
	26 and 33 years old	53	21.2
	34 and 41 years old	23	9.2
	42 and 49 years old	24	9.6
	50 years old and above	5	2
Gender	Male	81	32.4
	Female	169	67.6
Marital	Single	171	68.4
	Married	66	26.4
	Divorce/widowed	13	5.2
Educational	SPM	48	19.2
	STPM	17	6.8
	Diploma	44	17.6
	Degree	125	50
	Master/PhD	10	4
	Others	6	2.4
Employment	Student	20	8
	Part-time	11	4.4
	Full-time	69	27.6
	Homemaker	12	4.8
	Self-employed	53	21.2
	Serving for government	37	14.8
	Serving for private	33	13.2
Income more than RM5000	Others	15	6
	Yes	183	73.2
	No	67	26.8

Source: own study

Cronbach's alpha (α) value of more than 0.70 is considered to be satisfactory. Indicator reliability seems to be the proportion of variance determined by latent variables. Loadings for all items were found to be greater than 0.50 which is considered acceptable (Byrne 1994; Sarstedt et al. 2014; Hulland 1999).

The degree to which all items join to represent a construct as measured by another construct is called convergent validity (Urbach and Ahlemann 2010). Hair et al. (2016) refer to this as the average variance extracted (AVE), which means the large mean value of the squared loadings of all items correlated to the construct. Hair Jr et al. (2014) pointed out that in order to achieve acceptable convergent validity, every item must explain a variance of at least 50% of the assigned indicators

Table 2 Confirmatory factor analysis results

Factor structure	Outer Loading	CR	AVE
<i>Emotional value</i>		0.954	0.94
I enjoy shopping in stores in this mall	0.902		
I feel relaxed shopping in stores inside this mall	0.911		
I feel good shopping in stores at this mall	0.917		
Visiting stores in this mall gives me pleasure	0.861		
Stores in this mall make me want to visit them	0.902		
<i>Social value</i>		0.951	0.931
Shopping in the stores in this mall helps me feel socially accepted	0.853		
Shopping in the stores in this mall helps me make a good impression on others	0.922		
Shopping in the stores in this mall gains my social approval	0.95		
Shopping in the stores in this mall enhances the way I am perceived by others	0.915		
<i>Sensory appeal value</i>		0.954	0.941
The way stores in this mall display their products is attractive	0.896		
Stores in this mall are aesthetically appealing (art, beauty, and taste)	0.911		
I like the way stores in this mall look	0.925		
I like the ambience (i.e., music played, nice smell, temperature) in this mall	0.861		
The mall setting has good design harmony	0.897		
<i>Mall repatronage intention</i>		0.939	0.918
The likelihood of my shopping in this mall again is very high	0.862		
I would be willing to purchase from this mall	0.837		
I like shopping in stores in this mall	0.909		
My priority to visit this mall was a wise one	0.875		
I frequently purchase merchandise from stores in this mall	0.857		

Note: CR composite reliability, AVE average variance extracted

Source: own study

(AVE > 0.50). All items are kept in this study since the result of AVE greater than 0.50 (AVE > 0.50). A score of average variance extracted (AVE) for emotional value, social value, sensory appeal value and mall repatronage intention is 0.808, 0.829, 0.807 and 0.754, respectively.

Although the structural model had a significant effect (emotional value and sensory appeal value, both $p < 0.05$), the social value was not significant ($p > 0.05$). Table 3 provides t-value, p-value, and significance levels for the hypothesized paths. All hypotheses were supported with the exception of H₂.

The previous study explored the nature of the patron’s intention to visit from mall patronage intention (Sadachar and Fiore 2018) to test relationships with the experiential values toward the mall. In present, this study results (see Table 3) indicate that almost all three of experiential values contributed significantly. Only social value is

Table 3 Hypothesis testing results (direct effect)

Hypothesis	Path	<i>t</i> -Value	<i>p</i> -Value	Path significance
<i>H1</i>	EV → MRPI	27.946	0	Supported
<i>H2</i>	SV → MRPI	0.483	0.315	Not Supported
<i>H3</i>	SAV → MRPI	4.545	0	Supported

Note: *EV* emotional value; *MRPI* mall repatronage intention; *SV* social value; *SAV* sensory appeal value

Source: own study

not supported on mall repatronage intention. While, the other two are positively related and have a high impact on mall repatronage intention ($p < 0.05$). Therefore, these results support Sadachar and Fiore (2018) findings that the experiential value positively influenced mall repatronage intentions.

The result showed that this effect was found to have a significant relationship with mall repatronage intention. So, if the patron does not have a passion, then the logical contradiction can provoke uninteresting and repulsive emotions. Here, emotional value is found to be important for increasing the emotional engagement of consumers in the repatronage intention of the mall.

Another strong relation has been tested in this study between the sensory appeal value and the mall repatronage intention. Together with this result, the sensory background of the shopping experience boosts the willingness to purchase, and sensory shopping experience helps the brain interact with products or services in an emotional level, stimulates the retention of information and the intention to repatronage, and is therefore identified as a direct path to these findings.

In contrast to the emotional and sensory appeal values, the effect of social value discovered that there was no positive influence of social value effect toward mall repatronage intention. This effect was not supported for this study regarding its impact that is insignificant for repatronage intention on shopping mall in Kota Kinabalu. It seems that patrons are not really patronizing shopping malls as a symbolic tool for acquiring and disseminating status and prestige.

6 Discussion

The interaction within the patrons, whether a spouse or a friend, showed an emotional value in shopping and in the goods that was not directly observable when patrons came to the shop on their own. Hollebeek (2011) in his another study about emotional value on product or brand consumption in the shopping mall reveals that situations of the patron. In another study by Hollebeek (2011) about the emotional value of product or brand consumption in the shopping mall reveals the patron's situations. The study can relate the ability of the product or the brand in an affectively positively charged manner. An active emotion of the patron will be bringing about the product in the right atmosphere. This effect is manifest in the skilled form in which patrons browsed either spontaneously or systematically. The

emotional value brought the character of the patron itself; it is being absorbed by the situation, thereby forgetting time, place, and one's own ordinary social role. Both the amount of time some patrons spent in the shop and the falling out of character noted above are factor of intention to repatronage the mall.

In examining the relationship between sensory appeal value and mall repatronage intention, it was found to be significant in Kota Kinabalu context. Common relationship between these two, patron's experiential value and mall repatronage intention, is their emphasis on the sensory responses generated at the moment in the mall experiencing. It is useful to know that the conditions under which stores may be remembered as sites where a transformative of patron's experience of sensory appeal value either occurred or is being confirmed (Nora 2001). Hence, this study found the contributions from sensory appeal immensely valuable. This field may be undoubtedly useful even further when the method and findings are quantitative and marketing area.

When people are spending more time behind the screen, the social aspect of shopping will unavoidably decrease. However, this study found insignificant impact of social value for mall repatronage intention in Kota Kinabalu context. According to other studies about local retailing, Wong and Nair (2018) stressed that the decline of locally owned stores at the central shopping mall provides a potential explanation for why Kota Kinabalu patrons are withdrawing status-seeking. Hence, these patrons more likely to shop online rather than an actual visit. This situation due to shopping online is a trend nowadays.

7 Conclusion

These studies mainly examined influences that motivate patrons to shop in malls, factors that affect their mall repatronage intentions, the overall nature of mall customer experience, and mall patron profiles to deliver effective mall strategies. These studies highlighted the significance of consumption value in general; the present research offers insight into three independent variables directly from five original independent variables by defining these three variables as experiential value. Analysis of the emotional value, social value, and sensory appeal value to mall repatronage intention is outlined in Sadachar and Fiore (2018).

Indeed, this study appears to be the first to use the experiential value that affects the revisit intention of the Kota Kinabalu patrons toward the mall. However, 1.1 million square feet of mall space is expected to be added in the next 2 years (Sanjutha 2017), which poses concerns about getting enough tenants. In the future, to maintain mall competitiveness and growth against these consequences, malls need to build and distinguish a competitive edge and better serve today's patrons of Kota Kinabalu, who are all over the city.

As a final remark, the findings of three experiential value to mall repatronage intention for future studies provide new insight into the experiential value of two mostly affected in shaping mall repatronage in the Kota Kinabalu context. Subsequently, the analysis reveals the social value for repatronage intentions was the

weakly accepted out of two variables. Beware of stressing common consumption value in customers' experiential value effects will help drive favorable repatronage outcomes and provide the mall with a competitive advantage over other retail formats.

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The Impact of Consumption Values Towards Intention to Visit Green Hotel



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Abstract Tourism is currently heading towards sustainable tourism because this sector has detrimental environmental consequences. Many resources, including water, energy and waste disposal, are consumed and generated by the hotel industry. Therefore, the environmentally friendly services in hotel industry are important. The purpose of this paper is to review past study on the impact of the consumption values towards intentions to visit green hotel in Malaysia. A multidimensional measure of consumption values is used to determine which values of consumption are valued by domestic and international tourists. The theory of consumption values such as functional value, conditional value, social value, emotional value and epistemic value in this study is expelled to have impact on intention to visit green hotel in Malaysia. The findings indicate that emotional value and social value have a positive impact on the purpose of visiting a green hotel. Meanwhile, functional value, conditional value and epistemic value show that there is no positive relationship towards the intention to visit green hotel in Malaysia. A survey on 320 tourists in Malaysia has been conducted by using offline questionnaires. This study seeks to contribute to the literature on the intention of tourists to visit the green hotel by identifying factors that affect consumption values.

Keywords Consumption values · Intentions · Tourists · Green hotel · Malaysia

1 Introduction

The term “green” attracts a lot of interest in the hospitality sector according to Chan et al. (2013) which is supported by Kim et al. (2017). For the last few years, Chan (2013) and Jauhari and Manaktola (2007) have seen “green hotels” grow in a durable trend and as the most important success factor in the hospitality industry. Based on

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the Green Hotels Association (2014), the green hotel concept is well described as an environmentally friendly property that helps protect the environment by implementing water- and energy-saving initiatives, as well as reducing solid waste. One of the reasons why customers are so interested in visiting green hotels and buying environmentally friendly goods is that they are more mindful of the significance of environmental issues (Chan 2013).

In recent years, Chen and Tung (2014) and Gao et al. (2016) stated that the number of green hotels, which, while offering high-quality services and customer satisfaction, appear to be more environmentally friendly based on more efficient use of energy, water and raw materials, has begun to increase. In Academia, among researchers, green hotels have attracted interest as research objects. In order to build green hotels, several researchers have concluded that knowing customer intentions to visit green hotels is essential (Chen and Tung 2014; Choi et al. 2015). Therefore in this research, the theory of consumption values is applied to study the relationship towards intention to visit green hotel in Malaysia. Thoughtful research confirms that consumption values are important to alter and transform the purpose of visiting green hotels (Zhang et al. 2014; Chen and Tung 2014; Han et al. 2009). In addition, several research initiatives have been carried out to understand the purpose of consumers to visit green hotels.

The hotel's operations have resulted in permanent energy consumption, which in turn provides a way to stop emissions. The tourism industry is severely dependent on environmental welfare. As a main commercial part, the hotel may be a reason of the environmental damage in two phases: firstly, during construction, it can be a rapid, unplanned and unrestrained development through dust, runoff and remains that cause air and water pollution in the surrounding environment and, secondly, during the day-to-day activities of the hotel such as dirt, roads, waste disposal services and property such as water, gas and electricity. The hotel sector is a damaging sector that represents 75% of its environmental impact on the erratic consumption of nondurable goods. Besides the water and energy also got the same impact (Hsiao et al. 2014).

At the same time, the potential victim of climate change is not only the result of pollution, for example, air pollution from boilers, water pollution from washing and an increase in the volume of solid waste for local authorities (Bohdanowicz 2006). According to Hänninen and Karjaluoto (2017), consumption values are defined as general consumer assessments of the products and services they buy and use. Therefore, the purpose of this study is to determine whether or not there is a relationship between consumption values and the intention to visit a green hotel in Malaysia. In general, application of theory-driven research results in a better understanding of those behavioural factors that influence a particular behaviour. Stated by Khan and Mohsin (2017), consumers will rate the product or service conferring to the profits they got while they are choosing a product or a service. It shows that consumers' interpretation on products or services will give enormous affects to their decision-making (Fang et al. 2016). The start of this study will define the variables of consumption values that will influence the intention to visit green hotels in Malaysia. Subsequently, the previous study primarily uses the theory of planned behaviour to

classify human behaviour in particular situations to predict and describe it (Ajzen 1985).

The values of consumption in the hotel industry depend on many sides and aspects. The standard of accommodation, meals and the atmosphere of the hotel are the key things that will have an impact. In addition, the consumption values are a mixture of tangible and intangible assets and may vary from specific individual to another one. A typical consumer generates at least 1 kg of waste per day (Pirani and Arafat 2014), while about 50% of the waste can be recycled. The situation worsens when the non-green hotel building itself is the greenhouse gas emissions sector (Pout et al. 2002). In a way of contributing the theory of consumption values, we will get to know that consumption values play the important role to predict consumers' preference processes.

2 Literature Review

2.1 *Tourist and Green Marketing*

There are a large number of studies focusing on environmentally friendly products and service offerings in the field of hospitality and tourism research, such as green hotels, ecotourism and voluntary tourism (Choi and Parsa 2007; Han, 2015; Han et al. 2009; Han et al. 2010). In contrast, environmental studies have often confirmed the general strength of general behaviour (Dunlap et al. 2000). Since most tourists still visit built-up cities (Miller et al. 2015), the overview of sustainable tourism should take into account the regular practices of tourists. Stern (2000) emphasized the general impact of public measures, in particular green procedures. Moreover, the attitude towards the environmental of the hotel concern affects the future intentions of tourists which found that the environmental attitudes of hotel customers have a positive effect on their intention to stay in a green hotel, their intention to speak about their experience and their desire to pay more for the green activities and initiatives of the hotels. Consumers who are concerned about the environment and its deterioration are showing considerable interest in environmental fortification (Chen and Tung 2014; Chan et al. 2013; Han et al. 2009; Jirawat et al. 2011).

According to Ramkissoon et al. (2013), many tourist destinations rely on the desirability of their environment to attract visitors. The relationship between tourism and its quality of environment has often been deliberated between academics and practitioners (Budeanu 2007). Research on the effectiveness of tourism has demonstrated the important part of environmental quality and tourism satisfaction (Kim et al. 2014; Ramkissoon et al. 2013). While efforts are made to ease the negative effects of tourism derived from both the public and private sectors, consumer cooperation is still important for the sustainable use of nature (Halpenny 2010). Santana-Jiménez and Hernández (2011) found that in general the tourists focus on their activities and experiences while travelling and pay a slight attention to the home-grown environment.

The level of consumer understanding of this green marketing concept remains in question. In general, Makower (2011), who writes on green marketing, says that one of the encounters facing green marketing is “the lack of standards or consensus on what constitutes green”. In contrast, Myung et al. (2012) also noted that the idea of green marketing in the hotel industry is still in its infancy and that further developments in literature and theoretical support are required. At that point, in order to understand more about the evolution of green marketing within the industry, the most stringent level of understanding between domestic and international tourists seems necessary. This is because local and foreign visitors have greatly contributed to the growth of Malaysia’s hotel industry.

While the long historical growth of this industry in the local tourism scene has led to Malaysia’s environmental appeal, the number of foreign tourists received per year has increased significantly. Considering the various levels of acceptance and exposure in different countries to the idea of green marketing, it is likely that visitors have different viewpoints and may affect their willingness to become environmentally conscious while travelling. Hence, when taking into consideration the hotel industry, it is important to include both teams.

2.2 Intention to Visit Green Hotel in Malaysia

The deciding factor in understanding customer actions, according to Ajzen (1985), is that the purpose of a strong person is a behavioural intention to carry out a specific action that is likely to contribute to his or her success. However, the concept of behavioural intention is based on the theory of planned behaviour where decisions are made about behaviour, subjective criteria and perceived control (Ajzen 1985). Simultaneously, on green marketing studies, the theory of behaviour planned by Kalafatis et al. (1999) is being examined, stating that the theory is the precedents of consumer intentions in the direction of ecologically friendly products that take into account the theory’s legitimacy and an intention has been found in green marketing as valid. Ajzen (1985) insisted that the intent of any individual is often predictable over the behaviour of individuals. In this regard, according to Han et al. (2010) and Han et al. (2009), many researchers have examined the formation of behavioural intent at many points to better understand customer purchasing behaviours than many researchers in different environments.

While Oliver (1997), Han et al. (2009) and Ajzen (2009) generally agree on definitions of behavioural intention change across previous literature, the individual’s willingness or probability of behaviour is specific. Specifically, Oliver (1997) described behavioural intent as an “informed possibility of engaging in behaviour” (p. 28). In the context of hospitality, Han et al. (2009) identified behavioural intention as a specific possibility to implement purchasing behaviour.

On the other hand, an individual’s behavioural intent can be either favourable or unfavourable as it corresponds (Zeithaml et al. 1985). First, the intention to make positive/negative recommendations, then the desire/not willing to pay a higher price and, lastly, the intent repurchase/switch. Yi and La (2004) explain in detail that these

elements are also used in loyalty training for positions because they reveal a particular emotional commitment to a product or brand. A study by Manrai et al. (1997) to verify the strength of the green claim (the car emits less pollution) can affect the corporate image like Toyota and how the corporate image can, in turn, improve the likelihood of customers buying the car.

The customer is one of the most noteworthy reasons for green, which is also described as a key stakeholder in leading hotels to be environmentally friendly, according to Rahman et al. (2012) and Bohdanowicz (2006). The environmental appeal of housing is also attracting an increasing customer base (Jauhariand Manaktola 2007; Rahman et al. 2015). Not only do consumers increasingly agree to eco-friendly hotels, which result in higher occupancy rates, but they are also willing to pay more for green hotel accommodations and increase revenues (Lee et al. 2010). Customers expect hotels to be green with the present growth in green consumption. If clients fail to adopt environmentally friendly practices or ineffectively pass this adoption, consumers will lose greener competition (Butler 2008).

As a consequence, if they plan to adopt a successful environmental management policy, there is a strong need for hotel managers to consider the complexities of customer behaviour. In the hospitality industry, research continues to lag far behind consumer perceptions towards green consumer behaviour. According to Myung et al. (2012), the absence of research trying to explain the deeper dimensions of customer behaviour is a significant gap in environmental literature on hospitality. In addition, studies on this research route with theoretical perspectives were minimal. Hotels use a lot of energy and money in their daily operations (Ban and Ramsaran 2017; Verma and Chandra 2018). However, according to a survey by the International Hotel Association (IHA), according to Pieri and Santamouris (2015), the average energy consumption in the hotel industry is about 5 to 7% of the overall energy consumption. Thus, as stated by Kiatkawsin and Han (2017) and Wang et al. (2018), low carbon procedures in the hotel industry are of great importance for energy-saving and sustainable development.

In addition, the effects of the hotel's intake of vast quantities of resources have had a detrimental impact on the environment (Bohdanowicz 2006; Hu et al. 2010; Kasim 2004). The reasons for these detrimental effects include huge amounts of waste and heavy processing of recycled nonreusable goods using large quantities of water and electricity. A study by Wang et al. (2018) devoted the object of visiting a green hotel to a statistically significant relationship between consumption values, including functional value, conditional value, social value, emotional value and epistemic value. The findings showed that the environment concerned was closely linked to the consumption values of customers, which in turn had a major impact on visiting intentions.

This study addresses these gaps by proposing a complete model for consumer decision-making for environmental behaviour in hotels. This research generally explores how the principles of the biosphere of the consumer, which identify the protection of the environment and the biosphere as the most important concept leading to behavioural intention, are emphasized, in order to pay more for a stay in a green hotel and want to sacrifice living in a green hotel, the urge to sacrifice money and comfort to the environment and then connect the results of willingness to

sacrifice the environment with the purpose of visiting the green hotel. Similarly, this research explores how the dependent variable influences these behavioural intentions, which will be controlled as an independent variable by environmental interest and consumption values.

3 Methodology

Hotel guest data was reported annually by local area in Malaysia for 77,275,832,000 people in December 2017. This is an increase from the previous number of 72,346,128,000 people in December 2016. Hotel guest data is updated annually according to local site, with an average of 59,246,533,500 people from December 2004 to 2017, with 14 observations (hotel guest statistics in Malaysia – annually). The target population for this study are international and domestic tourists in Malaysia.

The age was an important factor stated by Sinnappan and Rahman (2011) where it is explaining green buying behaviour of green products or services of consumer. The minimum and maximum age of the hotel rental will be determined by the potential local age of 18 years as the minimum age. The age of 18 is chosen because, in accordance with Article 11 of the Malaysian Contracts Act of 1950, a person may conclude a contract at this age. When a person is able to conclude a contract at a later time, it is assumed that he will be able to rent a hotel and be connected to the hotel rental terms and conditions. However, since there is no overall hotel rental age limit, there was no age limit in this report.

The sample size will be 320 for the purpose of this data analysis. According to Sirkan and Bouygues, this sample size is sufficient to perform the analysis, where the sample sizes 30 and 500 are appropriate to convey the research. By distributing questionnaires to potential domestic and international tourists on the basis of four regions, the data have been collected in Sabah, Sarawak, Kuala Lumpur, Kedah and Penang, where Penang was ranked second among the largest centres of development in Malaysia (OECD 2011). Urban residents are projected to be more likely to embrace green ecological practices, as they would be more vulnerable to environmental issues. This study is a cross-sectional study using a self-administered questionnaire. The data for this study were collected through the distribution of self-administered questionnaires via offline method (hand delivery) to potential respondents that are visiting the five states in Malaysia which are Sabah, Sarawak, Kuala Lumpur, Kedah and Pulau Pinang. By using structural equation modelling (SEM), all the data can be well analysed.

Based on Fig. 1, the Independent Variables included the Functional Value, Conditional Value, Social Value, Emotional Value and Epistemic Value directly effect to the dependent variable which is Intention to visit (Burcu and Seda 2013; Sweeney and Soutar 2001; Chen and Tung 2014; Paul and Rana 2012, Han et al. 2009). Respondents were asked to express their agreement or disagreement of a statement on a Likert five-point scale (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Strongly Agree.

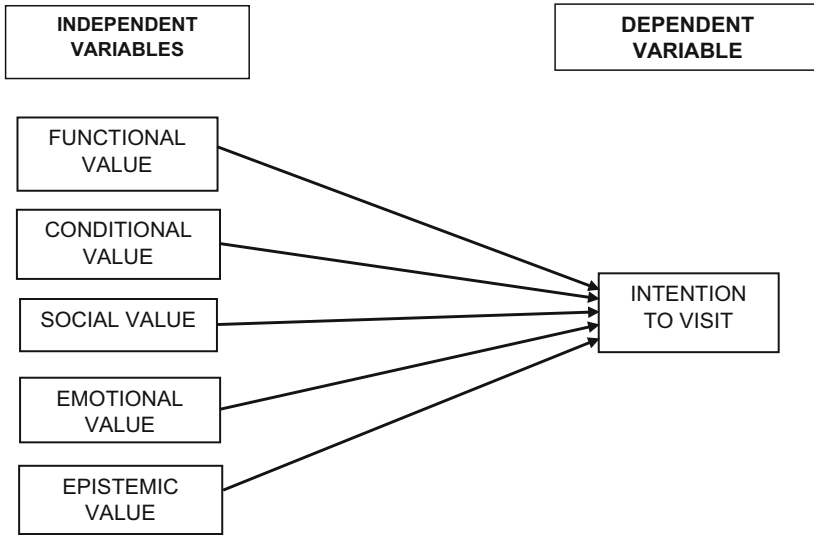


Fig. 1 Theory of consumption values. Source: based on Sheth et al. (1991)

4 Results

Results of a 6-week period of data collection yielded 320 usable surveys (i.e. respondents) from 5 states. Descriptive statistics were run according to the respondent’s demographic characteristics. Table 1 shows the respondents’ demographic characteristics. The majority of respondents were female (72.5%), and mostly they are tourists from Malaysia (84.4%). In addition, mostly ages between 18 and 23 years old have the highest percentage (41.3%), and the respondents were mostly single (77.5%). Most respondents visit other countries as vacation being their main reason (55.9%), and most of them are working in a private sector (48.8%). However, the highest percentage of respondent’s income is less than RM1000 (37.2%).

Assumed relationships (Fig. 1) were tested by SEM. There are significant consequences of the systemic model (social and emotional value). Meanwhile, the functional value, the conditional value and the epistemic value are not supported by hypotheses. Table 2 provides the standard path coefficients, t values and significance path (P-values) for the hypothesized paths.

Factor analyses of elements related to experimental values (emotional, social and sensory) and intention to remodel the mall were performed. Each component follows the proposed structure for the original metrics (Grewal et al. 2003; Mathwick et al. 2001; Oh et al. 2007; Sweeney and Soutar 2001), and they have an acceptable level of internal consistency (Nunnally 1978) with a value of Cronbach more than 0.70. The correlations between all search variables were large and ranged between 0.15 and 0.61.

Table 1 Demographic characteristics of the sample

Variables	Descriptions	Frequency	Per cent
States	Sabah	80	25
	Sarawak	60	18.75
	Kuala Lumpur	60	18.75
	Kedah	60	18.75
	Penang	60	18.75
Gender	Male	88	27.5
	Female	232	72.5
Tourist	Domestic	270	84.4
	International	50	15.6
Age	18–23 years	132	41.3
	24–30 years	120	37.5
	31–36 years	45	14.1
	37–42 years	9	2.8
	43 years above	14	4.4
Status	Single	248	77.5
	Married	60	18.8
	Divorced	10	3.1
	Widowed	2	0.6
Reason of visiting (ROV)	Vacation	179	55.9
	Work	88	27.5
	Both	22	6.9
	Others	31	9.7
Occupation	Government sector	39	12.2
	Private sector	156	48.8
	Self-employed	19	5.9
	Student	95	29.7
	Unemployed	11	3.4
Income	Less than RM1000	119	37.2
	RM 1001–RM 2000	109	34.1
	RM2001–RM3000	39	12.2
	RM3001 and above	53	16.6

Note: Data collections are based own author's information by using SPSS 24 (2019)

The results for the consistency reliability (CR) values for all combinations are as follows (Table 3): functional value (0.877), conditional value (0.883), social value (0.90), emotional value (0.895), epistemic value (0.883) and intention to visit (0.922). Composite reliability (CR) values range from 0.883 to 0.922 for each structure and are therefore deemed appropriate. In exploratory research, a value greater than 0.60 is appropriate, according to Gefen et al. (2000). Additionally, compound reliability (CR) values should be greater than 0.70 according to Hair et al. (2011). Additionally, Cronbach's alpha (α) values were observed for both compositions, and it was found that these values are acceptable because they range from

Table 2 Hypothesis testing results

Hypotheses	Path	T Values	P-Values
H1	Functional value → intention to visit	0.751	0.226 (not supported)
H2	Conditional value → intention to visit	0.152	0.44 (not supported)
H3	Social value → intention to visit	2.909	0.002 (supported)
H4	Emotional value → intention to visit	2.886	0.002 (supported)
H5	Epistemic value → intention to visit	1.587	0.056 (not supported)

Note: The data results are based on PLS-SEM 3.0

Source: own study

0.803 to 0.881. According to Nunnally (1971), alpha (α) values from Cronbach that are more than 0.70 are considered as satisfactory.

The index reliability is the ratio of variance that is determined by the underlying variables. The loadings of all items found to be greater than 0.50 are considered acceptable (Byrne 1994; Kuppelwieser 2014; Hulland 1999). The degree to which all items are related to representing another measurement structure is called convergent validity (Urbach and Ahlemann 2010). Hair et al. (2014) refer to this as average variance extracted (AVE), which means there is a large average value for the squared loadings of all items related to the construct. Hair et al. (2014) indicate that in order to obtain acceptable convergence validity, each item must justify at least 50% of the variance of the assigned indicators ($AVE > 0.50$). In this study, all items are kept ($AVE > 0.50$). The Average Variance Extracted (AVE) scores for functional value (0.589), conditional value (0.716), social value (0.750), emotional value (0.632), epistemic value (0.607) and intention to visit (0.798) as their AVE values.

5 Conclusion

In summary, five independent variables had relationship towards intention to visit green hotel by following the hypotheses. Table 3 shows that P-value on social value and emotional value had the positive effect with which each value had the same value (0.002) towards intention to visit the green hotel in Malaysia. However, the rest show the negative effect towards intention to visit green hotel followed by epistemic value (0.056), functional value (0.226) and conditional value (0.44). From this study, the result shows that tourists want to visit green hotels through the emotional value of the product or service that sparked their emotional states and emotions such as happiness, safety and relaxation (Khan and Mohsin 2017). According to Suki (2013), social value has been correlated with self-image and the perceived value of a product or service has been identified in relation to specific

Table 3 Confirmatory factor analysis results

Functional value		0.877	0.589
Green hotels are important for my concern	0.8		
The implementation of green hotel services help to protect environment	0.79		
The quality of green hotel services is worth its price	0.762		
Green hotels are more economical than conventional hotel	0.715		
The standard of quality in green hotels is acceptable	0.767		
Conditional value		0.883	0.716
If there is a promotion at any green hotels, I would grab the offer	0.827		
If only there are green hotels that are available, I would stay in one of them	0.865		
Due to high rate of pollutions, I would prefer green services	0.846		
Social value		0.9	0.75
Green hotels influence my image in a good way	0.8		
When I use green hotel services, I could influence other people to use them too	0.905		
When I use green hotel services, I could be a role model for my family and friends	0.889		
Emotional value		0.895	0.632
When I use green hotel services, I feel that I am concerned to the environment	0.849		
When I stay in green hotel, I feel that I make the right decision	0.673		
When I stay in green hotel, I think I would be better person to the environment	0.834		
When I use services that would be harmful for the environment, I would feel bad	0.765		
When I use green services, I feel better	0.842		
Epistemic value		0.883	0.607
Green hotels are more innovative than a conventional hotels	0.815		
Green hotels have more creative services than conventional hotels	0.859		
Green hotels solve some pollution problems	0.803		
I think there would be much more green hotels in the future	0.853		
I frequently stay at green hotel	0.512		
Intention to visit		0.922	0.798
I prefer staying in green hotels when travelling	0.894		
I plan to stay at green hotel when travelling for my next visit	0.896		
I would make an effort to stay at green hotel when travelling	0.89		

Note: The confirmatory factor analysis results are based on PLS-SEM 3.0

Source: own study

cultural, social, demographic and economic groups, along with the social value that encourages tourists to visit green hotels.

The sample was limited to tourists in Malaysia either domestic or international for the convenience of the research. For the future researcher in the hospitality department in particular, the reasons causing the emotional and social values of visitors are supposed to be willing to visit a green hotel can be further explored. It is because

green hotels require more investment than conventional hotels. Moreover, it is also interesting to check the frequency of customer loyalty towards green hotels and whether practices affect their way of life.

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Pro-Environmental Self-Identity: Scale Purification in the Context of Sustainable Consumption Behavior



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Abstract Pro-environmental self-identity (PESI) is an individual's tendency to see himself as an individual who has a pro-environment perspective and action. The aim of this study is to purify the measurement scale of the construct of PESI and to get a scale of measurement which is valid, reliable, and truly able to measure the variable of the PESI in the context of sustainable consumption behavior (SCB). This research consisted of Study 1 and Study 2. Study 1 aims to test whether the construct measurement has really been valid which is able to measure the variable that is to be measured. A series of steps for purification of the measurement scale were carried out in Study 1. The first study used 240 as sample size. In the second study, researchers conducted further purification by improving the scale of item measurement, and it was tested on 205 respondents. The results of the purification of the measurement scale were retested in Study 2. These results prove that the PESI instrument is valid and reliable in the context of sustainable consumption behavior research. Other findings in this study state that sustainable consumption behavior is divided into two dimensions or types of behavior.

Keywords Pro-environmental self-identity · Scale purification · Scale development · Sustainable consumption behavior

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1 Introduction

Self-identity is a self-inherent characteristic, which is used as a label in explaining individual self (Reimers et al. 2017). Self-identity is part of personal completeness (Hitlin 2003), which operates in a variety of situations and roles (Stets and Biga 2003). The self-identity that is raised will influence the behavior that is relevant to that identity. The conceptual development of identity constructs can be seen in the following periods of research. In the 1970s researchers discussed the conceptualization and operationalization of several constructs such as values, worldview, attitudes, and norms used to understand and predict individual behavior in supporting and protecting the environment.

In the 1990s researchers' attention focused on the conceptualization and measurement of "self" and self-identity, their relationship with the environment. In that era, there began a debate about identity construct related to the measurement of construct whether unidimensional or multidimensional, independent or interdependent, or personal or social. In the 2000s until now, debates over the measurement of pro-environmental self-identity have not yet reached an agreement. In the era of 2000 to 2018, research related to self-identity was proven to have a strong influence on sustainable behavior, as was the meta-analysis (Trudel 2018), as well as the results of previous empirical research (Trudel et al. 2016).

Pro-environmental self-identity is one of the constructs forming a SCB. Such sustainable consumption behavior is the key to sustainable development (Geiger et al. 2017). The two main perspectives that dominate research in the area of sustainable consumption behavior are the demand side or those related to marketing and the supply side or those related to business strategies (Kostadinova 2016). This study emphasizes consumption behavior from the marketing side. Sustainable consumption behavior has consequences for social systems and natural conditions in general. However, research in the field of sustainable consumption behavior to date faces conceptualization constraints. Some studies do not show a clear and agreed definition in defining the construct of sustainable consumption. The contributions of this paper to the literature are related to the conceptual definition and measurement of pro-environmental self-identity and sustainable consumption behavior. The novelties of this study are the measurement of sustainable consumption. Behavior is multidimensional, and the measurement of pro-environmental self-identity is unidimensional by considering identity theory and social identity theory.

Both pro-environmental self-identity (PESI) and sustainable consumption behavior (SCB) are latent variables. Latent variables cannot be measured directly, so measurement instruments with the right indicators are needed. The step in eliminating several indicators with multi-item scale, in order to get the right instrument, is called scale purification. This study aims to get clear conceptual definitions and operational definitions of the construct of PESI and the construct of SCB. The second step of this study is purifying the multi-item scale constructs of PESI and the constructs of SCB.

2 Theoretical Background

2.1 *Social Identity Theory*

Social identity is defined as part of an individual's self-concept derived from individual knowledge as part of group membership, with significant value and emotional links to the group (Tajfel and Turner 1987). Social identity has two components, the belief that the individual is part of the group and the assumption that the group is something important to the individual self (Tajfel and Turner 1978, 1987). Social identity theory (SIT) was developed in the 1970s by Tajfel and Turner (1978). Identity has a structure which is consisting of traits, attitudes, behaviors, and goals that are relevant to the individual social categories of a particular group. Social identity theory is increasingly being used in various research contexts, including in the context of environmental awareness (Fielding and Hornsey 2016). Social identity theory is basically focused on intergroup relations. Simply put, the social identity approach assumes that the concept of self consists of personal and social identity. The personal identity includes personal aspects, while social identity comes from groups that are part of the individual located.

2.2 *Definitions of Sustainable Consumption Behavior*

The ambiguity on the definition of sustainable consumption behavior is caused by two things, lack of consensus about consumption behavior that is considered sustainable and lack of a common frame of reference for integrating research that is divided into different consumption behavior (Geiger et al. 2017). The first obstacle relates to differences in conceptualizing the object of evaluation. So far, there are two main approaches used as a reference in defining sustainable consumption behavior. The first approach is oriented to the impact caused by the consumption of sustainability, while the second approach, the goal-oriented approach, to the attainment of sustainable consumption behavior. Impact-oriented approach assesses the SCB by assessing factual impacts on the environment which are caused by this behavior. These approaches can consider different effect categories, spreading from ecological even social criteria to more integrative considerations of the SCB dimension on a broader scale. Besides that, goal-oriented approaches focus on certain consumption behaviors.

Sustainable consumption has three components that are the main focus, namely, (1) increasing the chances of a better and better quality of life, for many individuals on the planet by distributing natural resources equally; (2) integrating the needs of future generations with patterns of using natural resources in moderation; and (3) reducing the negative impacts of overconsumption and consumerism significantly accompanied by efforts to minimize ecological damage (Dermody et al. 2015; Dermody et al. 2017). Sustainable consumption behavior contributes to the perspective of fairer citizenship, equality, and supervision (Connolly and Prothero 2003; Peattie 2010; Peattie and Peattie 2009; Prothero et al. 2011), with which individuals

consume only part of the earth from the planet's resources (Peattie and Peattie 2009). Sustainable consumption also encourages the reduction of excessive consumption and anti-consumption practices (Prothero et al. 2011) and guarantees long-term competitive advantage for the company (Gadeikiene et al. 2012).

The current definition of sustainable consumption is very broad (Table 1). Some researchers give different terms related to sustainable consumption, such as, responsible consumption, attentive consumption (Kreuzer et al. 2019; Schlaile et al. 2018), anti-consumption (Martí 2018), voluntary simplicity (Alexander 2011; Peyer et al. 2016; Zra 2016; Shaw and Newholm 2002), and socially responsible consumption (Prothero et al. 2011; Schlaile et al. 2018). This research covers several aspects of sustainable consumption and disposal practices supported in this approach and focuses on the sustainable behavior of individual consumers (Kwai et al. 2016; Prothero et al. 2011).

2.3 Pro-Environmental Self-Identity (PESI)

PESI is interpreted as a social role and that role is accompanied by environmental responsibility (Clayton and Opatow 2003; Devine-Wright and Clayton 2010). Meanwhile, PESI is part of individual self-identity that shows the existence of self-responsibility to the environment. Pro-environmental self-identity also shows an individual orientation to the environment accompanied by the role of environmental care. The pro-environmental self-identity is a unique eco-friendly self-concept, which is symbolically expressed and shaped by sociocultural forces as the main dimension. The sociocultural dimension shows that the pro-environmental self-identity is a sign-situation that gives a signal to a certain situation, which leads to environmentally friendly consumer behavior (Dermody et al. 2017). The pro-environmental self-identity in this study is defined as individuals who have a sense of connectedness to the environment that affects the outlook and actions of individuals pro-environment. The main dimension of the construct of pro-environmental self-identity comes from self-concepts which include the perception of the individual self, the perception of others of the individual self, the ideal perception of the self, and the actual self (Table 2).

3 Method

The scale purification criteria in this study include statistical and judgmental criteria. The scale purification in this research was carried out in two studies, namely, Study 1 and Study 2 with online survey design. Measuring purification steps are as follows:

Table 1 Definition of sustainable consumption behavior

Source	Definition
WCED (1987)	Actions to meet of the needs that are not limited to the purchase of goods based on the market and the scale of reference to fulfill the needs that ensure that current and future generations have the same opportunity to meet the needs
Oslo ministerial roundtable (1994)	Sustainable consumption is the use of goods and services to meet basic needs and provide a better quality of life, by minimizing the use of natural resources, toxic materials, and emissions of waste and pollutants during the life cycle, so as not to endanger the needs of future generations
Conception of the United Nations Environment Program (2001)	Sustainable consumption is a number of major problems, such as meeting needs, improving quality of life, increasing efficiency, minimizing waste, taking a life cycle perspective, and taking into account the dimensions of equality, for current and future generations, while continuing to reduce environmental damage and risks to human health
OECD (2002)	Sustainable consumption includes a series of behavioral changes, such as greater efficiency in the consumption of energy and resources, minimizing waste, and getting used to buying household needs that are more environmentally friendly
Robins and Roberts (2006)	Sustainable consumption means consumption that balances time and expenditure of money, in order to satisfy the basic needs of life and the needs of future generations
Welsch and Kühling (2009)	Continuous consumption is not always the same as consuming less but to consume it differently
Belz and Peattie (2010)	SCB is a consumer behavior that enhances social and environmental performance and meets their needs
Pinto et al. (2014)	Buy and use products that have a low negative environmental impact, as a result of pro social behavior
Lee et al. (2015)	Sustainable consumption is defined as “environmentally friendly consumption,” i.e., environmentally conscious, through the consumption (purchase and use) of environmentally friendly products, following anti-consumption practices and sustainable disposal, such as rejecting, reducing, reusing, and recycling products
Geiger et al. (2017)	Individual actions to fulfill the needs in various fields of life by obtaining, using, and disposing of goods and services that do not endanger the environment and socioeconomic conditions of all individuals to satisfy their own needs
This study	The act of fulfilling the necessities of life by obtaining, using, and disposing of waste goods that benefit the environment and do not endanger the environment and fulfilling the needs of future generations

Source: authors own study

Table 2 Definition of pro-environmental self-identity

Sources	Definition
Environmental identity (Stets and Biga 2003)	A set of meanings that are inherent in themselves as individuals who interact with the natural environment
Environmental self-identity (Van der Werff et al. 2013)	The degree of the individual sees the individual as the type of individual who acts environmentally friendly
Pro-environmental self-identity (Dermody et al. 2015, 2017)	Individuals who have a sense of self that includes pro-environment actions
Environmental identity (Clayton and Opatow 2003; Devine-Wright and Clayton 2010)	The sense of connectedness to the natural environment (not human) that affects the way we see and act toward the world and the belief that the environment is important to us and an important part of who we are
Ecological identity (Walton and Jones 2018)	The level and ways of the individual see themselves as part of an integrated (e.g., ecological) social and biophysical system that is characterized by a process of mutual benefit and connectedness (nested webs of relationships)
This study Pro-environmental self-identity	The individual tendency to see himself as an individual who has a pro-environment perspective and actions

Source: authors own study

First, study the literature in various articles discussing the constructs of pro environmental self-identity and sustainable consumption behavior. The researcher compiled a literature review for the two constructs, using indexed journals. The result of this step is to obtain a conceptual definition and operational variable, as well as a collection of research instruments for both variables.

Second, researchers conducted interviews and observations on environmental activist participants. Researchers visited several environmental activists in several cities. The result of this step is the actual findings made by activists in sustainable consumption behavior and identification of pro-environment self-identity.

Third, face validity and content validity instruments of self-identity and sustainable consumption behavior (judgmental criteria) were tested. Face validity testing and content validity testing are carried out by experts.

Fourth, collecting data of first study.

Fifth, researchers tested the instrument with a validity test (statistical criteria) namely convergent validity and instrument reliability testing.

Sixth, the improvement of indicators for pro-environmental self-identity is carried out, called scale development.

Seventh, collecting data in study two, with an online survey.

Eighth, re-test the instrument which includes validity and reliability tests in study two.

Table 3 Operational definition of pro-environmental self-identity and sustainable consumption behavior

Variables	Operational definition of variables
<i>Sustainable consumption behavior</i>	An individual act of fulfilling the necessities of life by obtaining, using, and disposing of goods that benefit the environment and do not harm the environment and consider meeting the needs of future generations. Measurement indicators: Buy organic products, buy vegetable products according to season, buy fruit according to season, buy energy-efficient products, sort waste, consume organic products, reduce electricity, and save water. Variables are measured with 7 statements using a 1 until 5 response scale
<i>Pro-environmental self-identity</i>	The perception that an individual sees himself as an individual who has a pro-environment perspective and actions, with indicators: Organic consumers, care about environmental problems, responsible for environmental problems, happy to be seen with a clean lifestyle, the assumption of family and friends related to pro-environment perspectives and actions. The instrument was measured with 6 statements using a 1 until 5 response scale.

Source: authors own study

4 Results and Discussion

Literature studies have been conducted by researchers who produced several instrument findings that measure the construct of pro-environmental self-identity and sustainable consumption behavior. Some pro-environmental self-identity instruments considered for reuse by researchers include measuring tools that have been used by Dermody et al. (2015) and Hustvedt and Dickson (2009) and ecology identity (Walton and Jones 2018). Based on the observation and interviews conducted by researchers at environmental activists in four cities in Indonesia namely, Surakarta, Sukoharjo, Salatiga and Boyolali, were formulated eight indicators of pro-environmental self-identity. The indicators are tested for face validity and content validity by experts, and six indicators are left measuring the identification of environmental awareness, as listed in Table 3. These indicators are tested by conducting an online survey in Study 1 and Study 2. Several instruments of sustainable consumption behavior have been used by previous researchers, which are considered to be used in this study. For examples:

- I buy fruits and vegetables according to the season
- I consume organic vegetables.
- I am trying to find ways to reduce electricity consumption.
- I am trying to find ways to conserve water usage.

Researchers conducted interviews and observations on pro-environment communities in four cities of Indonesia. Interviews and observations are carried out to obtain certainty of the actual behavior that has been carried out by the local community. The results of the study literature, interviews, and observations produced 18 items of

Table 4 Rotated component matrix of EFA Study 1

	Component			Cronbach alpha
	1	2	3	
SI1		0.840	0.775	0.647
SI2		0.866	0.440	
SI3			0.611	
SI4			0.715	
SI5				
SI6				
SCB1	0.491	0.676		0.754
SCB2	0.491			
SCB3	0.501			
SCB4	0.673			
SCB5	0.776			
SCB6	0.744			
SCB7				

Source: authors own study

statements of sustainable consumption behavior. The 18 indicators were tested for face validity and content validity, which left a total of 7 indicators for measuring sustainable consumption behavior.

4.1 Study 1

Study 1 was conducted with an online survey design using Google Forms. Forms are distributed via the WhatsApp network. The results of the online survey collected 240 respondents. The respondents are spread in 22 cities in Indonesia. Respondents consisted of 52% men and 48% women. 43% of respondents aged 41–50 years, 28% of respondents aged 31 to 40 years, 21% of respondents aged 21 to 30 years, 7% of respondents aged 51 to 60 years, and the remaining 1% of respondents aged over 60 years and under 20 years.

The EFA results showed that the Kaiser-Meyer-Olkin measure of sampling (KMO and Bartlett's test) value was 0.742 with a significant level of 0.000 (Table 4).

Based on the results of the EFA test output, it showed that the concept of pro-environmental self-identity contained in the measurement indicators illustrates three different concepts (Table 5). This is the first test of CFA and in the study 2, researcher retest the CFA of instruments, as the result in Table 6. Indicators of pro-environmental identity on SI1, SI5, and SCB5 showed indicators that measure different constructs that cluster on the same component. The three indicators were statements related to self-identity as consumers of organic products and consumption behavior of organic products.

Researchers make improvements to the indicators on SI1 by changing the indicator to "self-perception as environmentally friendly individuals," while other indicators remain. The improvement was made by reconsidering several indicators that are often used in measuring self-awareness about the environment but not included

Table 5 Measurement indicators of pro-environmental self-identity and sustainable consumption behavior

Variables	Items of variable
<i>Sustainable consumption behavior</i>	<p><i>Sustainable consumption behavior</i></p> <ol style="list-style-type: none"> 1. I buy fruits and vegetables according to the season. 2. I consume herbal products (such as honey, palm juice, herbs, etc.) 3. I sort organic and inorganic waste. 4. I collect used paper that can be used by others. 5. I consume organic vegetables. 6. I am trying to find ways to reduce electricity consumption. 7. I am trying to find ways to conserve water usage.
<i>Pro-environmental self-identity</i>	<p><i>Pro-environmental self-identity</i></p> <ol style="list-style-type: none"> 1. I consider myself as part of organic consumers. 2. I think of myself as someone who cares about environmental cleanliness. 3. I seem to have a green lifestyle. 4. My family and friends think of me as someone who cares about environmental cleanliness. 5. My family and friends consider me as part of the organic consumer. 6. I always want to be someone who cares about environmental cleanliness.

Source: authors own study and modification from Geiger et al. (2017); González et al. (2015); Lee et al. (2015); Dermody et al. (2015); Kwai et al. (2016); Hustvedt and Dickson (2009); Walton and Jones (2018)

in the measurement of pro-environmental self-identity in this study. Researcher test the face and content validity with the expert in marketing (Promoter team) before testing using statistically.

4.2 Study 2

Study 2 was conducted to retest the measuring instrument that had been improved from the results of the pilot test in Study 1. Study 2 is a refinement of the measurement indicators, according of the Ideal Survey Attributes (ISA) (Malhotra and Grover 1998; Wulani et al. 2014). Researchers tested the psychometric properties of the PESI and SCB instruments that have been revised. Instruments tested in Study 2 were conducted with an online survey design and collected 205 respondents who were individuals who were different from respondents in Study 1. Respondents in Study 2 consisted of 46% men and 54% women. 41% of respondents aged 41–50 years, 27% aged 21 to 30 years, 20% aged 31 to 40 years, and the remaining 12% aged over 50 years and under 20 years. The results of the instrument improvement in Study 1 were retested with the results of the KMO Bartlett’s test value of 0.830 with a significant level of 0,000. See Table 6 for EFA results.

Table 6 is the CFA output of the pro-environmental self-identity instrument that has been improved its measurement indicators. The CFA results state that all

Table 6 Rotated component matrix of EFA Study 2

	Component			Cronbach alpha
	1	2	3	
SI1	0.709			0.859
SI2	0.584			
SI3	0.789			
SI4	0.812			
SI5	0.729			
SI6	0.687			
SCB1		0.631	0.850	0.713
SCB2		0.737	0.868	
SCB3		0.658		0.858
SCB4		0.574		
SCB5		0.532		
SCB6				
SCB7				

Source: authors own study

indicators for the measurement of the construct of pro-environmental self-identities are valid based on judgmental criteria (face and content validity) and statistical criteria with convergent validity. Another finding in the purification of this measurement scale is the existence of a new construct in the variable of sustainable consumption behavior. The results of this study indicate that sustainable consumption behavior in samples of individual consumers in Indonesia is divided into two types. The two types or dimensions of sustainable consumption behavior are the dimensions of recycling and green product purchase behavior (SCB1, SCB2, SCB3, SCB4, SCB5) and the dimensions of reducing energy behavior (SCB6, SCB7). The reliability test results also showed that the three constructs had very good reliability.

The value of Cronbach alpha of pro-environmental self-identity was 0.858, the construct of recycling and green purchase behavior is 0.713, and the construct of the reducing energy behavior is 0.858. The study findings said that the indicator of instrument PESI and SCB was valid and reliable. These findings show that the measurement indicators of PESI and SCB variables complement some of the indicators before, which have been done by previous researchers (e.g., Dermody et al. 2015; Geiger et al. 2017; González et al. 2015; Hustvedt and Dickson 2009; Kwai et al. 2016; Lee et al. 2015). According to the context of these studies, sustainability consumption behavior is measured by two types of behavior, green purchase behavior and reducing energy behavior. Then pro-environmental self-identity is measured by six indicators which are valid and reliable. To get the external validity or generalization of this study, another researchers could retest the instruments in another phenomenon.

5 Conclusion

Pro-environmental self-identity and sustainable consumption behavior are interesting constructs for further discussion in Eastern cultures, including Indonesia and its surroundings. Some indicators do not pass the face validity and content validity with strong consideration related to the culture of the people in Indonesia. The measurement scale used in this study can be applied in other research contexts, especially in the Asian region. An interesting finding in both studies is the existence of sustainable consumption behavior which is divided into two behavioral dimensions, sustainable consumption behavior related to recycling and green purchase and sustainable consumption behavior related to reduced energy.

The implication of the results of this study has an impact on the measurement of the pro-environmental self-identity and sustainable consumption behavior which is relatively ambiguous. Through the findings of this study, researchers offer an alternative measurement of variables that considers some of the previous findings and identity theory and social identity theory in formulating conceptual and operational definitions of PESI. The findings of this study also have implications for the selection of SCB instruments that are fundamentally represented by two main behaviors in measuring long-term SCB. Researchers could distinguish the two behaviors, recycling and green purchase behavior and reduced energy behavior.

The limitation in this study was only the use of questionnaires with indirect answers. This situation did not always reflect the actual conditions of the respondents. The other limitation that researcher did not considered is the social bias by conducting a social desirability bias (SDB) test. For future directions, first, researcher should conduct an SDB test to ensure that respondents provide the best answers and minimize bias on respondents' responses. Second, researcher should consider for the next research adding SCB explanatory variables in the research model, such as attitudes, values, and other personality variables and situational variables.

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Part IV
Finance

The Analysis of the Investment Opportunities into the Wine



Daniela Majerčáková and Michal Greguš

Abstract The aim of this article is to characterize and analyze the possibilities of investing in wine and champagne. The object of our research is the investment wine market, which accounts for approximately 0.1% of all wines produced. This wine comes mainly from the French regions of Bordeaux, Burgundy, the Rhone Valley, and Champagne. World wine production in 2018 was more than 282 million hectoliters, while in 2017 there was a significant decline, to 250 million hectoliters. The object of our interest of the wine production gives us a fundamental research question into the analysis, namely, the examination of the benefits and risks of investment wine and its properties, which makes it a suitable investment commodity. The increasing decline of the world's wine-growing regions and changes in their area over the last century, as well as changing climatic conditions, presuppose a review of another aspect of our analysis, namely the originality and value of investment wine with an advantage or threat compared to other investment opportunities on the market. Our findings show that wine is the most efficient alternative to gold and stock investment during the minimum of 10-year investing period. In our research we used data based on London Liv-ex stock exchange, wine investment portal data, and data from several relevant sources based on previous research.

Keywords Investment · Wine · Commodities · Analysis

1 Introduction

Over the past 20 years, the world of investment has expanded considerably, as have other sectors affecting daily lives. Thanks to the Internet, information is transmitted at any distance at lightning speed, and it is no longer a problem to buy anything from the other side of the globe. The same applies to investments. In recent years,

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investment in nontraditional commodities has been increasing, which is an alternative investment to traditional investment opportunities. Unlike investing in works of art, gold or precious metals, or commodities, investments into wine and champagne are becoming increasingly populated and available. Currently, the topic about investing into cryptocurrencies is very popular; however it is not the only alternative possibility of investing of free financial resources in the middle-term and long-term timeframe. As nontraditional investments are long-term investments, it is possible to look forward with it. We need to think about the future with nontraditional investments as it is a long-term investment and represents goods that are not so much liquid and there is an inactiveness needed. On the other hand, it is still more than necessary to follow the market (Majerčáková and Kočíšová 2016). From the perspective of individual investors, the reasons for making impact investments vary widely. Primarily, the opportunity to make changes locally is a strong motivating force. Impact investing is a logical extension of goals of the other individuals that they have pursued in other aspects of their lives. There are more and more possibilities of investments in this fast-changing world. Sometimes we can get interesting revenues from some irrational investments. Nevertheless, we expect the future value to be higher (Srový and Tyl 2014).

Investing into the alternative, like nontraditional commodities, is nowadays a new phenomenon. As it is possible to invest into anything, there are many nontraditional common forms of investments. These represent new opportunities and nontraditional forms of investing and chance for high revenues. Long-term investment horizon is the most efficient choice for this nontraditional investing, and it is necessary to count with higher risk in a decline of value. However, provided the return to wine does not have a strong positive correlation with standard financial assets, even if the return to wine is low, it is possible that including wine in an investment portfolio will provide a diversification benefit (Fogarty 2012). As the traditional investments are realized to gold, silver, precious stones, or diamonds, from this perspective wine is a nontraditional investment. It is advisable to use wine expert but it is not necessary. The annual revenue from the purchase of this type of alcohol moves between 10% and 15%. In some cases, the future value can increase by 200% from acquisition price. In some unique cases, it can be up to 400% from original price. Mainly from the French provinces, wines for investments are red varieties, which have the potential of maturing. Some wines mature up to 30 years and therefore they become a curiosity after years, and their value increases. The most qualitative wines come from Italy, Spain, or Portugal, but it is necessary to purchase them in verified viticulture, where the high quality is guaranteed (Majerčáková et al. 2019). The Bordeaux fine wines were more volatile during the financial crisis and are less volatile in non-crisis periods (Le Fur et al. 2016). The investment grade wines benefit from low exposure to market risk factors, thus offering a valuable dimension of portfolio diversification (Sanning et al. 2008). From the world's best vineyards come the term fine wine, and it is reserved for exceptional wines, the highest-quality grapes, and the most acclaimed winemakers. Well-known auction houses sold this type of wines. "Over a period of years, they have achieved a kind of 'blue chip' status" (Le Fur and Outreville 2019, p. 197).

In this century the world area of vineyards decreased, which in 2017 reached 7.6 million hectares. This is a significant decrease since 2003, when this area was 7.88 million hectares. Increased production concerns countries such as Australia, New Zealand, or Chile, where the climate is still better for wine. In 2017, world wine consumption was 244 million hectoliters. In 2000, this consumption was only around 225 million hectoliters (IOV 2018).

Investing into wine has a visible difference between the prices of different wines (Le Fur and Outreville 2019). Deciding how much we are willing to invest in wine is particularly important given the risk factors. Given that wine is a risky investment, there are many sub-factors that may jeopardize our returns. For example, poor crops could raise prices. This is good news if you already have stable wine investments in your portfolio, but bad news if you are a beginner when you first make a purchase. Investor's approaches to impact measurement will vary based on their objectives and capacities, and the choice of what to measure usually reflects investor goal and, consequently, investor intention (Majerčáková 2015). However, portfolios with wine are more efficient than portfolios without it (Aytac et al. 2016).

The average year's appreciation of the bottle can be as much as 20 percent in a year if it succeeds. The average appreciation of investment wines is about 7 percent per year, although you bought the lesser-known wine from the year 2009, which has even doubled the price per year. This paper analyzes the possibilities of investing into the wine as a challenge for investors with high risky potential to invest. Analysis as our method of research is the process of dividing the set of possibilities into the smallest parts, and we assume that splitting a complex object into several simpler components will allow you to better understand and understand the overall problem under investigation. Based on our previous study, we decided to look on estimate price of the wine in the 5-year and 10-year investment periods. Appreciation of investment into wine is compared with gold and stock investments during the time periods between 1998 and 2015. Wine is more stable in this respect, while stock and gold prices change mainly due to different political and economic influences. We will show this feature in the compound annual growth rate (CAGR) calculations. CAGR represents the growth rate of our investment over a period of time. This parameter is used to calculate and compare the performance of an investment at a particular time.

2 Methodology

The object of our research is the investment wine market, which accounts for approximately 0.1% of all wines produced. This wine comes mainly from the French regions of Bordeaux, Burgundy, the Rhone Valley, and Champagne. Wineries in Bordeaux produce the largest amount of investment wines, which is around 90% of total production. World wine production in 2018 was preliminarily estimated to be approximately 279 million hectoliters for the global wine production (OIV 2018); in

reality it was in 2018 more than 282 million hectoliters, while in 2017 there was a significant decline, to 250 million hectoliters.

Investing in wine has become one of the most profitable investments in the last 30 years. By its appreciation, it surpasses the most common ways of investing, precisely because of the characteristics that are unique to the wine, thus provoking a great interest for the investor. The advantage of investing in commodities is that they are tangible. While investments through financial instruments can be imaginary, wine is a real asset. Wine could maintain stability even in times of more difficult economic conditions and shows at least lossy periods in the 5- and 10-year horizons. Due to its low price volatility, there would be a lower price decline after the crisis than for financial assets, e.g., other commodities. One of the most important disadvantages of investing in wine is the low liquidity, but it also depends on the type of wine. Inadequate liquidity can lock you into an investment causing losses to grow to unacceptable levels (Tresidder 2019). Investing in wine also requires a much higher cost than other financial assets. These are mainly costs related to storage, transport, but also higher fees related to trading. In addition, it is necessary to count on a higher initial investment, for instance, compared to investing in Forex.

From the perspective of the timetable of investments, usually it is advisable to keep wine for at least 5 or 10 years; for some types of wine, it can be up to 20 years. This long-term horizon is one of the specific for these investments and our analysis. Analysis as our method of research is the process of dividing a whole into a set of smaller parts. Subsequently, we examined these parts. We assume that splitting a complex object into several simpler components will allow you to better understand the overall problem under investigation. The properties of the whole are based on a combination of the properties of the individual parts.

3 Summary of Results

3.1 Purchase of Investment Wines

Until the end of the twentieth century, there were no standard rules for trade in wine, and access to information, especially wine prices, was complicated. With the advent of the twenty-first century, investors had the opportunity to trade wine on the stock exchange. One of the best known is the London-based investment wine exchange (Liv-ex), which was set up in 2000 with the aim of creating a market that would bring more transparency, security, and efficiency. Other well-known platforms include BBX (Berry Bros. & Rudd's Broking Exchange), Cavex, Wine Owners, and WineBourse, and Liv-ex remains trade only (Stimpfig 2014). For private individuals, electronic platforms were created by a number of merchants, for example, Fine & Rare, Berry Bros & Rudd, Bordeaux Index (BI), and Aston Lovell. In 2009 BI's LiveTrade was set up which is the biggest by far. Its two-way dealing screens allow punters to trade over 150 investment-grade wines in real time from their homes or offices. The prices are keen (set by BI), and punters can make bids and

offers. LiveTrade is neither an exchange nor a brokerage operation because BI owns all the stock. “The market-making service has been massively successful, with more than £150 m worth of wine traded up to now” (Stimpfig 2014).

If we want to trade in one of the exchanges, we must open an account on it, and we will gain access to its market. Furthermore, the process of buying or selling works the same way as stock exchanges. With this type of investment, it is almost unlikely that we will never hold our wine. Wines remain in “in bond” mode, which means they are stored in the customs warehouses of the stock exchange and there is no need to pay tax during storage. However, different fees must be taken into account, which vary from one exchange to another. For some, it is necessary to pay a member whose amount depends on the services provided by the stock exchange. The same applies to the purchase and sale of wine, for example, only 3% for Cavex and 10% for BBX. Other costs relate mainly to wine storage and insurance.

Investing in wine does not only mean buying wine in bottles or barrels. We can also invest in wine companies. The advantage of this form of investment is higher liquidity in some companies and lower transaction costs. The best-known companies are Pernod Ricard, which owns brands of other alcoholic beverages, or the Altria Group, preferably a manufacturer of tobacco products. Altria Group’s wine trading revenues account for only 2% of total income. “Wine investors can either invest in an existing winery, or they can start from scratch, creating their own vineyard on purchased land or on their property” (Cable Wine System 2016).

The Wine Fund is another option for investing in wine if we want to leave the entire investment process to experts. Such a fund has its own portfolio in which we can invest, becoming partners of the fund. Diversification is an advantage, as the portfolio may contain more years from many manufacturers, which most independent investors cannot afford. As with professional portfolio management, the investor has no worries about portfolio management. However, it is necessary to count on fees, which are usually around 2% for administration and 20% of profits, as well as higher initial investment.

Direct investment—secondary market—purchase from a wine merchant. This way of buying wine is one of the simplest, and at the same time it is suitable for investors who do not prefer negotiations or auctions. The advantage is keeping the documentation, which allows us to monitor the movement of wine and have a guarantee of quality, optimal storage conditions, and originality of the wine. There are enough impatient collectors around willing to sacrifice a bottle to see how a wine is developing (Fine wine reserve 2020). Investors benefit from price transparency, but this form of trading is unregulated, which means that anyone can create a website and offer wine at low prices. Therefore, the risk of this method of purchase is higher; it can easily happen that we buy fake or even nonexistent wine.

Direct investment—secondary market—buying in auction houses. Over the past few decades, wine auctions have become popular with both wine collectors and investors. The largest auction houses include Sotheby’s and Christie’s, which have special wine departments, and Acker Merrall & Condit, currently the largest wine auction house. “Today, the best choices in no particular order are Zachys, Hart,

Davis Hart, Sotheby's, Christie's and Acker Merral to name a few" (The Wine Cellar Insider n.d.). Fees depend on auction houses, and commissions change for each auction house one by one, so we also need to be aware of the policy for each auction as they can vary widely. The disadvantage may be the high price, which also includes auction house fees, usually in the amount of 15–25%.

Buying wines with the en primeur system is considered the cheapest and most widespread way of purchasing investment wines. The name en primeur itself can be financially described as the purchase of wine futures, which means that the purchase will give us the right to deliver the wine and its further disposal in the future. This system can also be considered as a purchase of wine before marketing. In general, we buy young wine made with grapes harvested last fall with the en primeur system. The en primeur system is mainly used for wines from Bordeaux but also from Burgundy, Rhone Valley, Tuscany, Piemonte, California, and others. Most often, a trading system is used to purchase, in which two intermediaries act between the producer and the final consumer or investor. The first is called a wholesaler of wine. Buying en primeur is often the only way to secure stocks of rare wines available in very limited quantities, particularly the best wines from Burgundy and Bordeaux (Davy wine 2019). A Négociant buys wine from wineries (France, Chateaux) before its 2-year maturation in barrels begins. Chateaux from Bordeaux have a total of approximately 400 Négociants. For the Négociants, this system is a way to ensure the sale of wines so that they sell even the best quality wines of lower quality, which are not so much in demand.

The advantages of buying en primeur wines are many. The main reason why wine is bought while it is in barrels is the price. En primeur wines have the lowest price in this period, and we can save tens of percent. After the wine is bottled and subsequently marketed, its price will increase significantly. In this context, another advantage is the large room for rising wine prices. En primeur wines are among the youngest and therefore have a long period ahead of them with a tendency to grow in quality and value. If we want to get to the most precious wines, the best option is through en primeur. These wines have a high value, which at the outset may be acceptable to many. Another advantage is the possibility to choose the bottle format. Most commonly, investors use 0.75 l standard bottles, but they also have a choice of larger bottles, from 1.5 l Magnum to 18 l Melchior. The en primeur system allows us, in addition to the selected format, to obtain wines in the original packaging provided by the producers. Most of the best wineries pack wines in wooden boxes that usually contain 6 or 12 bottles. However, the en primeur system also has several drawbacks. For some wines, there may not be only a price increase, the wine may become less attractive than expected and the price will fall.

3.2 Price Development of Investment Wine

The price of investment wine is influenced by several factors which are different for each type of wine. At the same time, like the prices of other products or services on

the market, it is contingent on supply and demand, in which case demand exceeds supply, and this is also reflected in price levels. The factors influencing the price of investment wine include its origin, brand, vintage, or quality, which depends mainly on the influence of weather, area, soil, grape type, or human intervention in wine growing and production. Furthermore, the price may also depend on the history of the winery, the evaluation of critics, the availability, and, over time, the rarity of the wine. If we compare investments in wine with investments in stocks, bonds, or other commodities, for example, the cost of that investment is much higher. Thus, the costs associated with investing in wine include transport costs, transactions, membership fees (e.g., stock exchange investments), commissions to dealers, auction houses (most often around 15% of the price), online auctions that are lower than auction houses, insurance, and wine storage charges.

Of course, these costs vary for each investor, mainly according to the method of purchase, storage, sale, and other criteria. For instance, in the London Liv-ex stock exchange, it is necessary to count primarily on the membership fee, but it varies according to the type of package. The cheapest package includes a registration fee of € 2100 and a monthly subscription of € 240. In addition, there is a commission for a 2% purchase or sale, settlement fees for a standard member of € 4.90 per bottle, and insurance around € 14 per month. To get an idea of the prices of individual wines, you can find them, for example, in the Wine-Searcher database, which is among the best. It provides information on the origin and characteristics of wine, reviews of critics, historical prices of wine, as well as reviews from previous years or the possibility of buying wine. Another well-known database is the Wine Market Journal, which offers not only information on the wine market but also an overview of auctions. To increase the selling price, it is necessary to keep the wine in the best possible quality. This applies not only to the bottles that should remain undamaged but also to the packaging. Wine is packed in OWC (original wooden case). Each wine producer has his own, usually wooden, wine box. Among investors, it is often preferred to buy wine throughout the crates. In addition to the external quality, it is advisable to be able to prove the internal quality, so information on wine history and provable archiving is necessary (Wine Investment 2019a, b).

In most cases, wine is best sold after approximately 8–12 years after it has been bottled. There is currently a great demand for wines packaged in the OWC because, in addition to bottle quality, this wine has added value in the form of original packaging. In this case, it is even possible to ask more from interested parties. We see that the right moment must be found for the sale of wine, but the place and the way of sale also play an important role. When investing in a wine fund or through professional wine portfolio management, we do not decide how to sell our investments. Like all other activities, sales are provided by specialists to whom we have entrusted our money to their hands. It is them who can make the most of our investment, but it should be remembered that their commission will be greater. If we have invested in wine at one of the stock exchanges, its sale is usually limited to the same merchant we also bought our wine from. These traders and stock exchanges are quite different, for example, in terms of liquidity, fees, or sales price commission (which is usually the same as the commission paid on the purchase). However, if we

buy wine ourselves, we will also decide on its sale. The possibility of selling wine through auction houses is among the oldest and most popular options, especially if we own very rare and high-quality wine. For us as sellers, this is an opportunity to sell our wine at a price that can be quite high in case of serious interest. The advantage of this way of selling is the high interest of other investors and collectors, especially in the case of wine that is first-rate and in demand for it. One of the most popular options now is selling wine through online auctions. This form offers investors better opportunities to sell their wine, as it does not have to focus only on the auction house, which has a certain number of clients and most often only from a small area.

As an example, to illustrate the course of the sale, we chose the Wine Auctioneer auction. After registering on the company's website, it is necessary to deliver wine to their business, either by ourselves, or by picking up by couriers or their regular travel staff, but only in the UK and picking up wine from clients. At the same time, if we cannot ensure quality packaging of wine, the company will take care of it for a fee. But we take all the risk of damaging the bottles. Subsequently, the wine will be checked by experts before it is placed in the auction. We will be informed about the time of the auction in time and we can watch offers for our wine. The company retains 5% of the final selling price. Other charges include shipping costs that depend on our location and, if necessary, 5 pounds of packaging material. The same amount of £ 5 per item is also the registration fee, and at the auction the starting price for one bottle will be either £ 5 or £ 8, depending on the type of wine.

3.3 *Appreciation of Investments into Wine*

Is it worth investing in wine? In this part, we will look at these three types of investment over a 28-year period, from 1988 to 2015, when wine investments have become more popular. For comparison, we present data from 268 5-year investment periods and 208 10-year investment periods. The biggest benefit of investing in wine is the minimal, almost zero number of loss periods. Table 1 shows that of the 268 5-year periods, only 3 were loss-making, while there were none on the 208 10-year periods. There is a significant difference compared to stocks and gold, where the number is much higher. It is evident from Table 1 that when investing in

Table 1 Number of loss periods in the years 1988–2015

Type of investment	5 years in numbers	10 years in number
Investment wine (prices Bordeaux wines Liv-ex Investables)	3 (1.1%)	0 (0%)
Stock/shares (S&P 500)	80 (29.9%)	30 (14.4%)
Gold (spot gold prices in London)	92 (34.3%)	65 (31.3%)

Source: authors own study based on wine-talks.com data

Table 2 Highest appreciation of investments in 1988–2015

Type of investment	5 years	10 years
Investment wine (prices Bordeaux wines Liv-ex Investables)	380%	441%
Stock/shares (S&P 500)	223%	367%
Gold (spot gold prices in London)	195%	557%

Source: authors own study based on wine-talks.com data

Table 3 The lowest return of investments in 1988–2015

Type of investment	5 years	10 years
Investment wine (prices Bordeaux wines Liv-ex Investables)	−10%	80%
Stock/shares (S&P 500)	−35%	−42%
Gold (spot gold prices in London)	−36%	−41%

Source: authors own study based on wine-talks.com data

gold, 5-year investment periods carry a high risk of loss. Wine is more stable in this respect, while stock and gold prices change mainly due to different political and economic influences.

The highest appreciation of investments according to Table 2 was achieved by wine in the 5-year period, but it can be seen that longer-term investments can bring even more profits, so it really pays the wait. In this case, for investment wine, the difference in yield over time is not as great as that of gold. In this respect, a long-term investment in gold would be preferable, but the high risk of loss should also be considered.

By contrast, according to Table 3, the lowest return on investment was recorded in the 10-year period. Investments in gold have converged very similarly, with both types of investments even having high losses. For investment wine, the lowest appreciation in the 10-year period was 80%. From these data, it can be seen that investment in wine over a 10-year period is stable, can yield high returns, and ensures that we are most likely not to lose.

From the first look, regarding to increasing appreciation and all other aspects examined, it seems to be a better option has a 10 years portfolio. However, after examining the effectiveness of the long-term portfolio, we can say that the 5-year period yield is more stable and respectively creates a more specific yield curve with a more positive expectation of yield by year. The risk that the 5-year investment will be loss-making can be eliminated by extension of 10-year period.

The benefits of investing in wine include the consistency of revenue over time. We will show this feature in the compound annual growth rate (CAGR) calculations (Corporate Finance Institute n.d.). CAGR represents the growth rate of our investment over a period of time. This parameter is used to calculate and compare the performance of an investment at a particular time, and we need to know the value of the investment at the end of the period, at the beginning of the period, and the number of years between the two.

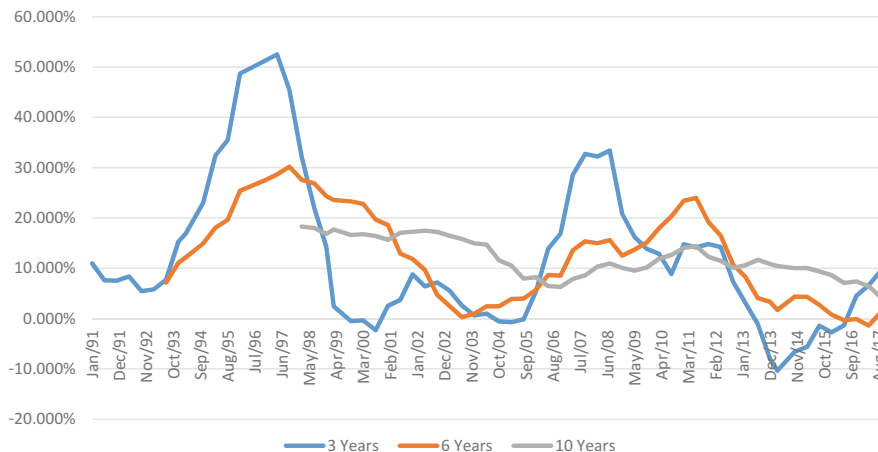


Fig. 1 The comparison of composite annual growth rates of Liv-ex Fine Wine Investable over 3, 6, and 10 seasons. Source: authors own study

Table 4 Composite annual growth rate of Liv-ex Fine Wine Investables over the 3, 6, and 10 seasons

CAGR	3 years season	6 years season	10 years season
Min	-11.57%	-1.86%	3.67%
Max	53.11%	30.60%	18.40%
Average	11.74%	12.17%	11.94%
Standard deviation	14.19%	9.14%	3.86%

Source: authors own study based on Live-ex (2019) data

$$CAGR = \left(\frac{\text{ending balance}}{\text{beginning balance}} \right)^{\frac{1}{\text{number of years}}} - 1 \tag{1}$$

Figure 1 shows a comparison of the calculated compound annual growth rates of the Liv-ex Fine Wine Investables index in 1988–2017, which follows the investment wines of the 24 best Bordeaux wineries. The longer the wine is held, the more consistent the yields are, as in the long run, wine consumption increases and availability decreases, making it rarer and, after a longer maturation period, of better quality.

This can also be seen in the data in Table 4, where, according to Picture 1, the lowest and highest CAGR values are recorded over the three periods. We can also observe a significant decrease in the standard deviation over time.

4 Conclusions

For a commodity such as wine, investing in a wine fund or through professional wine portfolio management is rarely used. For a successful investment, it is important to choose the right wine. To do this, we can either use expert advice or search for reviews or recommendations on the Internet. Lafite Rothschild (Vinfoлио 2017), which comes from Bordeaux, would be the best choice for investment as an example of choice. This wine produced in 2015 has reached 100 points and is the dominant of Cabernet Sauvignon wines. Its other advantage is the maturing time it has in front of it. However, the price of this wine is much higher compared to other wines, so a higher initial investment is needed.

As the best option for purchasing investment wine, we consider buying with the en primeur system, therefore the purchase of young wine, which still has 2 years of aging in barrels. This system has many advantages, but the biggest is the price of wine. At this stage of ripening, wine has the lowest price, so it is the best opportunity for an investor to get it. At the same time, it still has a full maturation period, during which it gains value. In the case of the en primeur system, the risk of false bottles and fraudulent traders is minimized, as wineries have contracts with wholesalers as well as wholesalers with wine brokers based on business activity.

All intermediaries care to maintain a business relationship with their partners. When buying wine, it is necessary to think of storage and sale. Depending on the sale of wine, it is appropriate to determine the way of storage so that it is the least expensive and does not require unnecessary movements of wine or worries about proper storage. Therefore, we would recommend using “in bond” storage, which we consider to be the best option if we do not insist on keeping wine under our own supervision and access to it. For investors who plan to resell wine, this option pays off the most based on the risk-reward relationship. Customs warehousing is particularly cost-effective, as annual fees are not so high, especially if we have more wine. In addition, we do not have to pay tax during the storage period. Customs warehouses provide the best conditions for wine, which are constantly monitored, and therefore the risk of damage to the bottles is minimal. At the same time, it is not necessary to manipulate the wine in this case. Transport and the entire storage process are handled by experts. At the same time, the wine is accompanied by documentation and provable archiving, thanks to which we can ask a higher amount when selling.

We would recommend online auctions as the best method of selling wine. It is a way that is becoming increasingly popular and popular with investors. Selling wine through classic auction houses is recommended only if we own very rare bottles for which we expect a high yield. The fees here are higher than the other methods. Online auctions are aimed at a wider range of clients, so the possibility of selling wine can be easier. When selling through an online auction, shipping and handling costs are higher, but the commission is low. But we need to choose the right online auction, so we do not waste a lot of money. Nowadays this method is safe; wine is controlled so there is no risk of fraud.

We consider this to be the best option for an investor who wants to achieve optimal returns at low cost and with the least risk. Time must be added to this investment process, as the return on wine sales depends on the time, we sell it. There is, of course, a risk of lower appreciation. You do not make wine, even if you do not have to earn much. In addition, risk can be eliminated by good storage and purchasing of multiple bottles—therefore by portfolio diversification. In addition to proper storage, the risk of loss can also be eliminated by diversifying the wine portfolio, that is, by buying more varieties and grades. If a year does not bring you the desired yield, it can be covered by another wine, which will appreciate more.

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Part V
Political Economy

The Framework of the Nontypical Immigrants in Greece



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Abstract From a political point of view, nontypical migration tends to be the result of immigration controls and the legal framework in the countries of destination. Illegal status and nontypical immigration are perceived as legal products. Irregularity is neither an occurrence achieved nor an unchanging condition. Under the abovementioned scope, the legal framework of Greece concerning the nontypical migration should be gathered, studied, and analyzed. Although every political entity can be considered as the sum of its parts, it must be taken into account that it is a whole that is capable of acting autonomously on the world stage. Nontypical migration may widely be considered as a phenomenon of the late twentieth and early twenty-first centuries, although concerns about the appearance itself seem to be growing faster than the phenomenon itself. Nontypical immigration is no exception or cultural pathology, rather may be seen as a structural feature of modern society.

Keywords Policy issues · Nontypical migration · Legal framework of Greece · Socioeconomic-political and legal changes

1 Introduction

It is well known that today, our country seems to be the largest gateway to the European Union for thousands of illegal immigrants (Triandafyllidou and Maroufof 2017; Benezet and Zetter 2014). Many of them are destined for other European Union countries, but many are not leaving our country and are stranded inside. This, combined with the great economic crisis that our country has undergone in recent

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years, correlates to a rise in the trend of marginalization and destitution of large numbers of immigrants, generates tensions within society, and provides a fertile ground for the creation of extreme racist attitudes and acts of violence by extremist groups (Kuschminder and Waidler 2019). A significant portion of the immigrants entering Greece illegally end up in the center of Athens, where the Greek state faces a lack in services and treatment facilities for these people. The limited scope of their integration into Greek society (both legislative and practical) exacerbates the problem and creates a fertile ground for “circuits” of exploitation, trafficking in human beings, and criminality (Glytsos 2005). The economic crisis that the country is experiencing combined with the incompetent management by the state of immigration and asylum policies has contributed to the presence of a large number of foreigners living in extreme poverty and deprivation in downtown Athens (Anagnostou et al. 2016).

As mentioned by Vlachadi and Neroutsos (2017), the basic principles which should govern contemporary migration policy are the following:

- The principle of equal treatment and against discriminations for all citizens and the legally settled ones within the framework of the fundamental human rights.
- The respect for diversity, cultural particularity and identity constitute major principles and challenges which require the commitment of the parties involved.
- It is imperative to combine the principle of universality and specialty so there is a distinction in gender, age, religion etc.
- An important factor is the sense and success of peoples’ contribution to the social process, self-help and participation in the quality of life.
- A migration policy should support the family and reinforce the existing informal support networks (Vlachadi and Neroutsos 2017).

The improvement of the existing legal framework but also the strengthening and creation of additional legislative texts in order to cover the rights and obligations of asylum seekers and immigrants is a worth mentioning direction of each country involved in immigration policy issues. Specifically for Greece, the depiction of the legislative reality can be an example to be imitated or avoided for other countries that may face strong migratory flows. As is clear from the definition of the concept of legal framework, each law can be amended according to the emergencies that arise or under the amending policies that each government must take care of for the well-being of society at large. The reflection of the legislative framework of Greece in matters of immigration policy can be considered important due to the many changes and modifications that it has accepted as a result of the change of the migration flow and the social integration.

2 Legislative Framework in Greece

According to Article 5(2) of the Constitution (Constitution of Greece 2008), “All persons in the Greek Territory appreciate the full protection of their lives, their dignity and their rights, regardless of nationality, race, language or religion.” The first process of legalization of immigration in Greece actually occurred in 1997 and was implemented in two stages. Thus, without eliminating the force of the previous law, two presidential decrees were issued which implemented a new one, parallel to the law stipulated in Law 1975/1991, the so-called green card for foreigners staying and working in the country. In the first phase according to Presidential Decree 358/1997, aliens dwelling illegally in Greece and either employing or seeking employment were registered. In the second phase, as defined by Presidential Decree 359/1997, those who had obtained a white card after a complicated procedure were able to acquire a card for a limited time period, that is, a green card that was also used as an employment card and released for 1 to 3 years.

Law 2910/2001 concerning the entry and residency of aliens in the Greek territory and the acquisition of Greek citizenship by naturalization and other provisions is a combination of the paradigm which governs the provisions of Law 1975/1991 and the Presidential Decrees of 1997. Articles 19–24 lay out the requirements for acquiring job and residence permits for prospective immigrants, and Articles 65–66 introduce a second attempt—registration and citizenship options for informal/unregistered immigrants (Maratou-Alipranti 2007).

In conjunction with the efforts made in 2001 to legalize immigrants and the provisions alluded to above, the Government has constructed a 3-year action plan for their social inclusion (2002–2005) with the assistance of the European Social Fund and the European Commission. This plan requires measures to integrate refugees into the labor market, to provide health and education, and, in general, to incorporate measures to address racism and xenophobia in Greek society. According to many researches of Greek society and legislate framework, most of these measures appear on record only (Triantafyllidou 2005).

On 4 August 2005, the new Immigration Law 3386/2005 on the entry, residency, and social inclusion of third-country nationals into the Greek territory incorporates a number of important advancements. For the first time in our country, provisions are being rendered for the social integration of immigrants into Greek society. Chapter IB of Law 3386/2005 reflects efforts to encourage initiatives to incorporate immigrants into Greek society. Article 66 points out an Integrated Action Plan for the effective transition and incorporation of third-country nationals into Greek society, the main principles of which are the prohibition of any form of discrimination, the implementation of equal treatment in employment social and cultural life with a view to promoting social stability, respect for fundamental human rights, assistance, promotion, and endorsement (Tsiatsios 2017).

Article 9 is considered also an improvement by implementing seven general types of residence permits: for employment, for independent economic activity, for specific reasons, for special reasons (humanitarian, public interest, victims of trafficking

in human beings), for family reunification, indefinitely persons who have a cumulative stay of 10 years in Greece, and long-term citizens of Greece who may be given a residence permit to persons with disabilities. Chap. I outlines the guidelines for the protection of the right to family reunion (Council Directive 2003/86/EC (2003)).

General and special attention should be paid to Articles 54 and 60. Article 54 provides for security in cases of polygamy. Article 60 generates for the issuance of an independent residence permit for family members of a third-country national legally resident in a certain country, in the context of family reunification and in cases where 5 years has elapsed since the family reunification residence permit was authorized (Maratou-Alipranti 2007).

The new Immigration Policy Act, i.e., special regulations on immigration policy issues and other issues within the competence of the Ministry of the Interior, Public Administration, and Decentralization Act 3536/2007, published in the Government Gazette on 23 February 2007, incorporates several changes to the conditions that must be required in order to qualify for a residence permit in Greece. They should qualify for:

- a. Those who were enrolled in a public primary or secondary education institution before 31 December 2004 and have since resided in Greece.
- b. Those who are parents of a child who have enrolled in a public primary or secondary education institution before 31 December 2004 and will continue studying until 2007.
- c. Those who were born in Greece and are still living in Greece,
- d. Parents of a child born in Greece until 31 December 2004 if the spouse is legally resident in the country of residence.
- e. Those who were married in Greece until 31 December 2004 if one of the two partners is legally resident in the country.

Also entitled to apply are:

- a. Those who applied for a Special Homogeneous Identity Card until 31 December 2004 which had been rejected until 30 September 2007.
- b. Those who held a Special Identity Card expired until 31 December 2004 and were not renewed.
- c. Those who had applied for a residence permit until 31 December 2004 which had been rejected by the region until 30 September 2007.

Nevertheless, all these innovations are almost immediately “cancelled” by the short timeframes for sending supporting documentation to immigrants. It should be remembered that the new amendment excludes a large number of immigrants who would like to provide the necessary supporting documentation as the deadline was on 30 September 2007, i.e., just 7 months. As a result, many immigrants continue to exist out of legal status for a short period of time, expecting a new regulatory framework in the years ahead (Tsiatsios 2017).

Law 3838/2010 on the criteria for the acquisition of Greek citizenship amends the Greek Citizenship Code. Immigrant children shall acquire Greek citizenship at birth in Greece if both parents have been permanently and legally resident in Greece for at

least 5 consecutive years. Citizens of foreign nationals who have attended Greek school for at least 6 years and who have resided permanently and legally in the country are also entitled to citizenship. A prerequisite for foreigners seeking to acquire Greek citizenship is their legal residence in the country for seven consecutive years, the lack of a white criminal record, the knowledge of the Greek language, their smooth integration into the economic and social life of the country, and their familiarization with state institutions (Christopoulos 2013; Eleftheriou 2013).

Law 3907/2011 was the latest amendment to the legislative framework as it completed the gradual release of police authorities from the management of foreigners. As a result of long-standing pressure from international organizations, NGOs, and the EU, as well as state recognition of the failure of the Greek police to deal with the issue of asylum, the legislation creates two separate civil services at the Ministry of Citizens' Security, the Asylum Service, for adjudication of claims, and the First Reception Service, for the control and screening of illegal applicants.

3 Discussion

Nevertheless, in fact, discriminatory practices frequently violate the fundamental principles of the rule of law (Triandafyllidou and Marouf of 2017). Therefore, in the field of public administration, the arbitrary and often inappropriate conduct of state institutions against individuals pertaining to minority groups is overrated, given the fact that our country has embraced all the international conventions on respect for and security of human beings (Papadimitriou 2000).

Even after 2001, when accountability for legal immigration was transferred to the Ministry of the Interior (and Employment), asylum persisted the responsibility of the Greek police until the implementation of the recent legislation creating a separate Asylum Service (Law 3907/2011). The primary reason was the willingness of the Greek police to maintain control over the entry and stay of asylum seekers or refugees (who until then were mainly Turkish political dissidents or secessionists of Kurdish origin) (Swarts and Karakatsanis 2007). Foreigners first arrived in Greece in the 1970s and for subcategories of occupations (householders and seafarers from the Philippines, shipyard workers from the Middle East, agricultural workers from Pakistan and Bangladesh). These immigrants occupied jobs that were no longer coveted by the Greeks because of the continued improvement of the Greek economy—making it more desirable for foreigners to remain in the country—and the development of labor needs for capabilities not supported by the Greeks (Triandafyllidou and Marouf of 2017). As a rule, these immigrants were legal and organized. Since the beginning of the 1980s, with the incremental liberalization of the Eastern European economies, refugees, mostly from Poland, have started showing up in Greece. However, by the end of the 1980s, immigrants in Greece accounted for only a small portion of the population: 40,000 legal immigrants were registered before 1988, and about 15,000 such illegal immigrants were presented by the Ministry of Public Order (Mediterranean Migration Observatory UEHR 2004).

After 1991, this situation has changed dramatically and in a very acute way. The dissolution of socialist regimes, especially in Albania in 1991, has almost always contributed to the entry of large numbers of foreigners into Greece (Swarts and Karakatsanis 2007; Dimitriadi 2013). From the outset, Albanians have been the large proportion of immigrants—informal calculations already show a total of 150,000 for 1991 (Amitsis and Lazaridou 2001).

Legislative implementation is also often closely followed by the document of European legislation, even when it is not strictly required, particularly with regard to transposing directives (Triandafyllidou and Maroufouf 2017). This is due to the combination in adjusting European Union standards to the condition and frameworks of the country's asylum and immigration regimes (Swarts and Karakatsanis 2007; Kotsiou et al. 2018). As a result of this stringent fragmentation of legislation, many of the arrangements introduced have not been implemented because the necessary clarifications have never been made (Papageorgiou 2013; Kuschminder and Waidler 2019).

4 Conclusion

To conclude, this “role” transition in the world map of population movements has marked a series of profound socioeconomic-political and legal changes currently underway in Greek society. Everyone can easily understand that there are no simple and clear ways to address the problem of irregular migration effectively. The primary goal of each country should be the legal framework and the strategic plan of the governmental bodies of every country, in the context of the protection not only of the indigenous but also for the migrants, in accordance with the humanitarian rights of equality, health, well-being, and self-actualization. As migration flows are one of the main pillars of EU policy and strategy, it is important to reflect the legislation of Greece as well as to create and strengthen the legal framework of all countries that face these special conditions and should protect both rights of both immigrants and indigenous peoples.

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Living with Decades of Inequality and Deprivation: A Study on the Conflict-Induced Internally Displaced Persons of Bodoland Territorial Council, Assam (India)



Jhanin Mushahary

Abstract The long-term impact of the displaced persons is enormous from all fronts such as security, psychology, education, human rights and all forms of livelihood. The paper aims to empirically study the economic as well as noneconomic inequality and deprivation of the displaced persons living in No. 01 Bengtol Relief Camp in the district of Chirang in Bodoland Territorial Council, Assam, India. The paper tries to understand the nature of their deprivation and role of government and civil society organizations in bridging the gap of deprivation. The result shows that displaced person has to undergo deprivation in their income, access to education, as well as access to government social schemes. The role of the government and civil society organizations were also found to be inadequate while addressing the deprivation of the displaced persons. We conclude that the study shows displacement makes people deprived of their natural entitlements and host of other benefits.

Keywords Inequality · Displacement · Insecurity · Deprivation

1 Introduction

Displacement of the population in any form results in hosts of issues relating to social, economic, political, security, human rights and many other livelihood implications. The displaced persons have to undergo traumatic experience related to physical and mental agony during displaced and post displaced period. Tens of thousands of population have been displaced within their country as a result of conflicts and human rights violations. Other displacements are due to natural disasters and infrastructure projects which forced them to flee from their homes and livelihood, and these displaced persons constitute one of the most neglected and

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forgotten people around the world (Hussain 2000). These internally displaced persons together with mental and physical trauma face deep economic vulnerability, impoverishment and livelihood deprivation. Displacement has become one of the serious issues in today's world having multiple dimensions and context. Conflict in various forms and magnitudes is one of the major human-made disasters for involuntary evacuations of tens of thousands of population within and outside the country. People being trapped in such a situation have always been in a situation of losing entitlements in various forms and are exposed to additional discrimination and human rights violations directly resulting from their being uprooted (Birkeland 2009). Movement of forced internal displacees, refugee flows, asylum seekers and development-induced displacees have increased in considerable numbers worldwide and have gained political significance in the recent past since post-Cold War period (Ullah 2011).

This paper tries to investigate how the internally displaced people living in No. 1 Bengtol Relief Camp¹ near Bengtol Police outpost in Chirang District of Bodoland Territorial Council (BTC),² Assam (India), uprooted due to ethnic conflict have been affected in their livelihood. These IDPs belonging to the Muslim community have been displaced in 1993 conflict from No. 1 Balazar and Salbari village about 15 km from the present camp of the same district. They have been living there since the conflict broke out almost two and a half decades ago without any regular income and sources. Thus, IDPs have to face multifaceted problems due to displacement via income insecurity, landlessness, joblessness, homelessness, marginalization, food insecurity and deprivation and other social and common property resources (Cernea 1995). Ultimately the displaced persons have to deal with an impact on the employment, unemployment status, earning capacity and more importantly income inequality (Mussida and Parisi 2018) within themselves and across the region.

Many existing literature can be found emphasizing the plight of forced displaced population in the region. Hussain (2000, 2005) has discussed about the poor mechanism of dealing with displaced people. Barman (2009) had raised the issue of security of the conflict-induced displacees in Lower Assam. Bharali (2009) had also raised similar issues relating to development-induced displacement in various parts of Assam. Narzary (2010) had noted the agony and suffering of the Boro

¹No. 1 Bengtol Relief Camp attached to Bengtol Police Outpost was established on 07 October 1993 by the district administration to protect the victims of conflict that broke out mainly between the Bodo community and the Muslim community. Since then, the IDPs were still living in the same camp which is about more than 25 years on their own without any help from the government authority.

²The Bodoland Territorial Council (BTC) also popularly known as Bodoland Territorial Area Districts (BTAD) was formed on 10 February 2003 with its headquarter at Kokrajhar, one of the district of BTC. It was created under the amended Sixth Schedule of the Constitution of India. The MOU was signed by the Leaders of the Bodoland Liberation Tigers Force (BLTF) an armed group which was under ceasefire, Government of Assam and the Government of India having four administrative districts, namely, Kokrajhar, Chirang, Baksa and Udalguri. The BTC authority has 40 subjects to administer. More details on www.bodoland.in

internally displaced people languishing in the relief camp. Goswami (2007) highlighted the lack of policy on IDPs. However, no specific studies have been found to be adequate in addressing the long-term impact and deprivation of the displaced population in the BTC region.

This paper tries to analyse three basic parameters of livelihood issues of the camp inmates, namely, income, education and access to social scheme offered by the Government of India (GOI) and the role of the civil society organizations in bridging the gap of inequality to these displaced persons. To the best of our understanding, the present study is the first of its kind to contribute to the existing literature by field-based empirical evidence on both qualitative and quantitative analysis on various aspects of inequality and deprivation.

The rest of the paper is organized as per the following sections. The next section will discuss the methodology adopted in this paper. This will be followed by a brief timeline of conflict and displacement profile in the Bodoland Territorial Council from 1993 to 2014. The fourth section will analyse the data received from the field relating to livelihood issues. Lastly, we have put some concluding remarks.

2 Methodology

The methodology used in this paper is based on an empirical field-based analytical study. Maximum weight has been given on the primary data although secondary data has also its place in the study. Primary data has been collected from the people living in No. 1 Bengtol Relief Camp to assess the long-term post-displacement impact on their livelihood. Total numbers of the people living in the camp at the time of field visits were 250 of which 132 were male and 118 were female. Among them 45 persons were below 15 years of age, 120 were between 15 to 30 years, and 85 persons were 31 and above. Altogether 37 numbers of household families are living in the camp since 1993. In each household, one head of the family has been chosen as one sampling unit to extract the information. We have covered all the 37 number of households for the survey. To collect the data, both quantitative and qualitative techniques have been used. For quantitative data, a collection questionnaire schedule and interview were used. For qualitative data collection, focused group discussion (FGD) technique was used to gather the information. Data were collected by visiting through door-to-door surveys by the researcher with the help of two other local youths of the camp. The survey was conducted between 15 to 30 November 2019. The key parameters of the study included household income from all sources, access to education of the family members and access to social schemes offered by the government both state and the central government.³ For the interpretation of the data, much focus has been given to qualitative analysis although

³The present study has a clearance from the Institutional Ethics Committee with the reference no. IEC/BU/ICMR/2019-3, Dated: 10/05/2019.

quantitative interpretation has also not been ignored. We have neither used any statistical packages/tools for analysing quantitative data nor have any kind of economic theory to quantify poverty been used. Simple tables to represent family household income, source, employment, etc. were used.

3 Population Displacement in Bodoland Territorial Council, Assam (India)

The conflict and population displacement in BTC date back to 1987 when All Bodo Students Union (ABSU)⁴ and its allied organizations spearheaded a separate statehood demand called 'Bodoland' curving out from Assam. Since then, conflict and population displacement in the region have become a protracted one. The area has become one of the most volatile and politically very sensitive regions since the starting of the separate statehood movement by the ABSU. Although the first Bodo Accord was signed in the year 1993 between the ABSU leaders, the Assam Government and GOI known as Bodoland Autonomous Council (BAC) bringing some optimism of ending insurgency, insurgency continued. Two armed groups, mainly Bodoland Liberation Tigers Force (BLTF) and National Democratic Front of Bodoland (NDFB), escalated their movements towards separate state and state-supported economic order targeting Adivasi forest dwellers, tea labourer's and migrant Bengali peasants (Vandekerckhove and Suykens 2008). BTC has been regarded as the 'conflict cocktail' as various levels of conflict occur along lines of inter- and intra-ethnic and religious dissent often leading to an outbreak of violence (Dutta 2016). The protracted and regular conflicts in the area have caused numerous deaths, property loss and huge population displacement in different magnitudes at various phases of time. With the growing number of more and more insurgency groups in the region vulnerability among communities have increased manifold. Eventually, in February 2003, the second Bodo Accord was signed between the BLT, Assam Government and the GOI known as BTC Accord under the modified version of Sixth Schedule of the Indian Constitution, curving out from Assam having four districts, namely, Kokrajhar, Chirang, Baksa and Udalguri. However, demand for separate statehood continued even after signing of second Bodo Accord. Some of the timelines of population displacement in BTC are shown in Table 1.

⁴The All Bodo Students Union (ABSU) is a students' organization formed on 15 February 1967. The ABSU under the leadership of Upendra Nath Brahma led a separate state political movement in the year 1987 to be called as 'Bodoland' for all the tribal communities living in the North Bank of the river Brahmaputra in Assam.

Table 1 Timeline of conflict and affected communities

Time line	No of displaced	Major communities affected
1993	18,000	Bodo and Muslim
1996	262,682	Bodo and Adivasi (mostly Santhals)
1998	314,342	Bodo and Adivasi (mostly Santhals)
2008	212,000	Bodo and Muslim
2012	400,000	Bodo and immigrant Muslim
2014	350,000	Bodo and Adivasi (mostly Santhals)

Source: Computed from Hussain and Phanjoubam (2007)

Table 2 Economic conditions and source of family income (all 37 households)

Income source/background	No. of family/members
Government jobs	0
Private sector jobs	0
Business	04 (shops/cattle business)
Agriculture	0
Skilled jobs	04 (driver/masonry)
Daily wage	29
Brick house	0
Electrification	Yes (temporary on payment)
Cement toilet	Yes (government project)
Livestock	Yes (cattle, poultry etc.)

Source authors own study

4 Analysis of Results

4.1 Family Background and Sources of Income

The suffering, deprivation and the ultimate goal of attaining socio-economic stability for internally displaced persons is a long-term process and may involve more than one generation. In spite of governmental policy and mechanism for resettlement, IDPs may continue to suffer distress for many years after displacement (Das et al. 2016). Most of the displaced persons living in the camps receive little care, and their children have access neither to formal education nor to health and other livelihood services. Throughout the Northeast India, conditions of the displaced are pathetic, having lost their most precious possessions, i.e. land, home and other resources (Hussain 2006) including inequality and deprivation. The study area being a relief camp is mainly dependent on livestock and family daily wage earnings on day-to-day basis. The survey report shows that almost all the entire populations were dependent on unorganized labour wage earnings which constitute their source of family income. Table 2 shows the real picture of the family's income in the study area.

From the above Table 2, it is very clear that all the households were entirely dependent on daily wage income, as the data shows that none of the family members

were engaged in an organized sector having a regular income. This is crucial as it will affect all other parameters of livelihood including education and family status. Data available indicate that 120 inmates are between the age group of 15–30 years. Among them, only four youths are skilled workers employed as trained drivers and two youths engaged as masonry supervisor. Only four family households were found to be engaged in small business owning small shops in Bengtol market which is very near to the camp. Out of four households, two family households were engaged in the cattle business. During the focused group discussion and as per the key informant's view, it is learned that before displacement in 1993 all the families were having cultivable land and were dependent on agriculture which was the main source of their livelihood, and now it is completely gone. The only sources they have now are daily wage income and income from cattle and poultry rearing. This shows how chronic situations of deprivation they have been living for decades. The lack of income results in financial stress to the camp inmates which is also one of the important determinants of psychological distress (Kim et al. 2019). The camp is very congested and is located beside the road adjacent to community health centres, one cannot imagine how 37 household families with 250 persons living in a compact space. Although electrification has been provided to all the households however they have to pay the bill as per the unit cost per month. All the houses were built by their own effort with mud wall and few roofs are covered with thin sheets, rests with thatch and plastics which is in deplorable condition. Latrines were provided to every household as part of government policy towards ending open defecation free movement. All the livestock were put beside the roadside as there is hardly any space for human beings. Although the BTC region is now relatively much peaceful since the 2014 mass killing of the Adivasi community by the extremist group, no government has any policy towards rehabilitating the displaced persons in the region. This lack of proper policy by the government has been one of the greatest deprivations of the displaced people in the region.

4.2 Education Background

Education is said to be the backbone of society. The future of the family, as well as society, depends on the education of the youths. Many empirical studies suggest that human capital affects income and economic growth. One of the case studies on the relationship between human capital and the economic growth across Indonesian regions has found that investment in human capital effectively supports economic growth in the country (Affandi et al. 2018). Education is an input in the national production function and has a considerable impact on the economic performance. At the same time, education has a strong effect on individual as well as family wellbeing and social progress (Bruno and Faggini 2017). Therefore there is a reciprocal relationship between education and economic growth. However, our study shows that the displaced people have not been able to come out from the trauma and distress after displacement. They have been able to adapt to living in a congested place but

Table 3 Educational background of the displacees in the camp

Enrolment in	Status	Dropout	Reason for dropout
PG and above	0	0	–
Undergraduate	0	0	–
Higher secondary	0	10	Financial
High school	05	10	Financial
ME school	10	0	–
Primary level	20	0	–

Source: authors own study

unable to adopt to the changing situation and cope up with time. This can be related to the income of the family and lack of support from the authority. The family income has heavily affected the educational status of the children and youth of the study area. In this section, we try to find out the number of youths and children currently enrolled in educational institutions and the reason for discontinuation if any. Table 3 shows the educational background of the youths and children living in the camp.

Our study has found out the shocking truth of the educational background of the youths living in the relief camp. Our focused area was basically between the age group of 15 and 30 years which constitutes around 48% of the total population in the camp. The Bengtol area is known for its educational institutions. Primary and ME school is just 200 m from the camp. Secondary and higher secondary is about 300 m. Bengtol College which also offers PG course in distance education mode is just about 350 m from the relief camp, while the only university in BTC, i.e. Bodoland University, is about 40 km from the camp. Besides government schools and college, there are three private English medium schools which are about 1–4 km from the camp. In spite of that, it is shockingly hard to believe that none of the youth was enrolled in those higher institutions. During the focused group discussion, it is learned that the lack of financial support was the main reason for the deplorable condition of the education scenario in the camp. This, in turn, has serious implications in terms of employment of youths in an organized sector.

4.3 Access to Social Scheme Offered by Government

Forcibly displaced populations have specific transitional and evolving social protection needs; however they have to face particular challenges accessing formal social protection programmes (Wheeler 2019) during and post-displaced period. Forced displacement of any nature frequently leads to vulnerabilities which require specific social protection mechanism. However when it comes to the protection of IDPs in any form there is always limited access. In a socialist liberal democracy like India, access to the social scheme is one of the utmost importance for the citizen especially when the gap between the rich and the poor is so high. This is even more important when it comes to conflict-induced displacement is concerned, because

Table 4 Social schemes of Government of India

Scheme	Sector
Atal Amrit Abhiyan	Health
Ayushman Bharat	Health
MGREGA	Rural wage employment
National Literacy Mission	Education
Nirmal Bharat Abhiyan	Sanitation
PM Gramin Awaas Yojna	Rural housing
PM Jeevan Jyoti Yojna	Insurance
PM Suraksha Yojna	Insurance
PM Ujjwala Yojna	Free LPG connections
RG Scheme for Employment of Adolescent Boys	Skill development

Source: assam.gov.in

Table 5 Welfare scheme enjoyed by displaced people in the camp

Schemes	No of families benefited
Atul Amrit Abhiyan	37 (all families)
Ayushman Bharat	01 family
MGREGA (Job Card)	10 families
Nirmal Bharat abhiyan	37 (all families)
PM Gramin Awaas Yojna	0
PM Jeevan Jyoti Yojna	0
PM Suraksha Yojna	0
PM Ujjwala Yojna	10 families
RG Scheme for Employment of Adolescent Boys	0
Compensation Given (Rs. 50,000.00)	16 families (21 families still waiting)

Source: authors own study

during a conflict situation displacees have to abandon everything to save their lives thus losing everything. Conflict can occur any time, any place and without warning. Therefore the IDPs have to depend on the welfare scheme offered by the government. The Government of India (GOI) has exhaustive lists of social welfare schemes to offer to its citizens. Here are selected few lists of the important schemes of the government.

In this section, we have tried to assess whether these schemes (Table 4) are accessible for the people living in the camp or not. As we think that out of hundreds of welfare schemes offered by the GOI, these were necessary for basic livelihood and sustenance which are related to income, education and family welfare. Table 5 shows some of the welfare schemes enjoyed by the displaced people in the camp.

Among some of the important given schemes, families who have been benefitted much are Atul Amrit Abhiyan which is a scheme for free cashless treatment up to Rs. 200,000.00 against six diseases such as Neurological Disorder, Burnt, Heart, Kidney, Cancer as well as Neo-Natal and Nirmal Bharat Abhiyan which is a pet

campaign of the PM Narendra Modi which is on cleanliness. Through this scheme, latrine facilities have been provided to poor families. However, other schemes related to housing, education, skill development, etc. have not been fully enjoyed by the family in the camp. During the interaction, it is learned that to enjoy such a scheme certain documents are necessary for which they have not been able to enjoy the benefits. The state government has given a compensation amount of Rs. 50,000.00 to 16 household families; however, 21 families are yet to receive the amount to which they cannot explain but not losing hope. The study shows how the displaced persons living in the camp have been deprived of even access to social schemes of the government which is meant for them. Thus the internally displaced people have to face severe consequences of deprivation in terms of economic and income, access to education and access to social schemes offered by the government which affects their livelihood and their future.

4.4 Role of Government and Civil Society Organizations

Civil society is an important actor in finding solutions for the displaced persons and contributing to peace building. However civil society has to depend on the role of the government as it cannot act in vacuum (Ferris 2008). National response is the utmost priority while dealing with the IDP protection. Civil Society organizations in collaboration with the government can play important role in finding solutions for internal displacement and can contribute in peace building. But lack of proper policy on the part of the government on conflict-induced internally displaced persons has badly affected the IDPs in India in general and the state of Assam in particular. India has a policy towards development-induced displacement but lacks policy on conflict-induced displacement. Thus lack of a federal agency to monitor displacement is the major cause for the absence of efforts to satisfy the basic needs of the IDPs (Sahoo and Jalandhar 2018). So whenever there are conflict-induced displacees, short-term solution has been meted out by giving them lump-sum compensation. On the other hand, several NGOs local as well as international were working in the region, mainly OXFAM India, LWS in collaboration with the local NGOs. INGOs were restricted in most of the cases while dealing with conflict-induced displacement. So there is a need for more collaborative engagement between the government machinery and the CSOs. Only when the government has the proper policy on conflict-induced displacement, then only long-term solution can be meted out otherwise conflict-induced IDPs has to live the life of chronic deprivation and impoverishment.

5 Conclusion

Identity-based political movements and countermovements in Northeast India in general and Assam in particular have created enormous enmity among different communities living in the multicultural societies in the region. This enmity in different period of time has exploded into ethnic violence of magnitude proportions, thus displacing tens of thousands of population in the region. Many of those displaced as a result of conflict has been since living in the relief camp for decades now with extreme deprivation and hardships.

It is established beyond doubt that displaced persons have to carry extra burden of economic, emotional and psychological hardships during the entire period of displaced and post-displaced period. Being a displaced person, one has to come across different hurdles in their livelihood such as income, jobs, education as well as cultural and social capital deprivation. Not only that, the inflows of displaced people increased the pressure on scarce social services including access to social schemes and resources such as employment. In such a situation, cultural clashes are probable and social tensions remains to be persistent (Sawhney 2019). Many studies also show that human capital is extremely important for income and economic growth. If deprived from access to human capital, it means affecting ones income and economic growth, thus affecting the livelihood of the individual or the family. The tendency of such deprivation is visible when it comes to the displaced persons in the area is concern.

The burden on livelihood is linked with the displacement. In this paper, we have tried to uncover how displacement makes people deprived of their entitlements ranging from immovable property to income, education and a host of other benefits. All three parameters such as income, education and access to social welfare schemes of the government were interlinked with each other, thus defining the status of the livelihood of the displaced people.

Our study has been able to prove that the people living in the study area (No. 1 Bengtol Relief Camp) were deprived in many ways since decades of their displacement. They have been living in sub-human conditions without any basic infrastructure and income. The rights to food, health, sanitation and education were missing resulting in isolation and neglect. The finding will be able to throw us some light to the policymakers as well as researchers and to the society at large to explore more on finding solutions to the problems faced by the IDPs in the long run.

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The Extended Insights into Market Behavior



Truong Hong Trinh

Abstract The recent socioeconomic development has emerged innovative business models that have much concerned on the value creation and value distribution. Many modern economic issues cannot be explained within traditional economic theory. It requires conducting theoretical models to reflect the market behavior in the real-world economy. From the value creation perspective, this paper attempts to clarify the concepts of price and value of a commodity in the market. These concepts are the base to define market equilibrium that includes production equilibrium and consumption equilibrium. In addition, the market supply is identified from the relation between rational choice and market equilibrium, in which the market supply depends on both marginal cost and market demand. The extension of market equilibrium along with the interdependence of supply and demand is the crucial foundation to the theory of market equilibrium. Since endogeneity and exogeneity are considered in the market equilibrium model, the paper provides a testable theoretical framework for empirical researches on market behavior.

Keywords Value concept · Market equilibrium · Market behavior · Rational choice · Endogeneity and exogeneity

1 Introduction

Market behavior is always a central theme in business and economics that have always attracted the attention of researchers and practitioners in recent years. Most real-world problems can be explained by economic theories that stem from the theory of value. The theory of value not only explains the relationship between price and value of a commodity in the market but also determines how the value of a commodity is created and distributed in the economy. Since the market behavior has

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gone beyond the underlying principles in the economic theory, this leads to change in viewpoint of value creation and value distribution in the economy.

The value concept is also the base to form theories of value that explain price and value of a commodity in the market. Classical economists rely on the labor theory of value in which the value of a commodity is determined by production factors and conditions (Smith 1776; Ricardo 1821; Marx 1859). The socioeconomic context in the 1670s reflects the relations of production and exchange mainly depend on labor factor (Petty 1861). Later, Smith (1776) adds production factors (capital, land) together with labor factor to constitute the value of a commodity, and the price depends on its cost in production. Ricardo (1821) found that the price depends on the scale of production due to the law of increasing marginal cost. Classical economists explain the value derived from the production process and the exchange price depending on the production factors (labor, capital, land) and production conditions (technology, scale). However, classical economists cannot explain the diamond-water paradox, with which water has more value-in-use than diamond but diamond has a higher value-in-exchange than water. Since utility concept and marginal revolution began in the 1870s, economists have used the concepts of total utility and marginal utility to explain value-in-use (value) and value-in-exchange (price). The utility concept and marginal analysis are considered as the cornerstone of neoclassical theory that makes the revolutionary transition from classical economics to neoclassical economics.

Bentham (1789) is considered as the father of the theory of utility (Stigler 1950). Dupuit (1844) used the concept of marginal utility to formulate the law of equi-marginal utility. Later, Jevons (1871) and Menger (1871) developed a tool of marginal analysis to explain the value of a commodity depending on its utility in consumption. Marshall (1890) defined market equilibrium in terms of supply and demand, in which the market price is determined upon both supply and demand. Modern economists still attempt to explain the value of a commodity and value distribution in today's economy. In recent literature, the value of a commodity is something that is perceived and evaluated at the time of consumption (Wikström 1996; Vargo and Lusch 2004; Grönroos 2008; Trinh et al. 2014). However, the neoclassical theory of market equilibrium has limitations in both theoretical models and underlying assumptions. Most critics concern on rational choice behavior, the independence of supply and demand, and untestable theoretical model. These critiques of neoclassical theory focus on two directions: (1) universal properties and endogeneity and (2) contextual properties and exogeneity. The universal properties state under economic laws in the socioeconomic context. The contextual properties are expanded with exogenous considerations in empirical researches.

For these motivations, this paper concerns on theoretical models and underlying assumptions of the theory of market equilibrium that contribute to the extended insights into market behavior. In Sect. 2, the paper defines the concepts of price and value with the extension of market equilibrium including production equilibrium and consumption equilibrium. The extension of market equilibrium is the theoretical base to explain price and value of a commodity and market behavior through the mechanism of market equilibrium. Section 3 conducts value creation and value

distribution in the value creation system, in which the value balance is the foundation toward cooperative behavior and market equilibrium. Since the market supply depends on marginal cost and market demand, it explains the ways of the cooperative behaviors of producers and customers toward the market equilibrium. Section 4 expands the market equilibrium model with incorporation of endogeneity and exogeneity that provides a testable theoretical framework for empirical researches on market behavior. Conclusions are summarized in Sect. 5.

2 Market Equilibrium

The value concept is the base to define value and price of a commodity in the market. Neoclassical economists argued that value depends on its utility that comes from exchange and consumption (Bentham 1789; Dupuit 1844). The utility concept and marginal analysis are cornerstones of neoclassical economics to explain customer choice and market demand (Jevons 1871; Menger 1871). Later, Alfred Marshall (1890) explains price mechanism in terms of both supply (cost of production) and demand (utility). However, market equilibrium in neoclassical economics explains market price of a commodity determined by supply and demand; the explanation on value of a commodity is still a big challenge.

The market is defined as the place in which the commodity is exchanged between producers and customers in the economy. In such market, value is determined in consumption, and price distributes the economic surplus between production and consumption (Trinh 2018). Thus, the market demand (D_V) includes production demand (D_P) and consumption demand (D_U) as illustrated in Fig. 1. Production demand (D_P) presents the relationship between price and quantity demanded in production, while consumption demand (D_U) presents the relationship between utility and quantity demanded in consumption. Similarly, the market supply (S_V) includes production supply (S_P) and consumption supply (S_U) as illustrated in Fig. 1. The production supply (S_P) presents the relationship between price and quantity

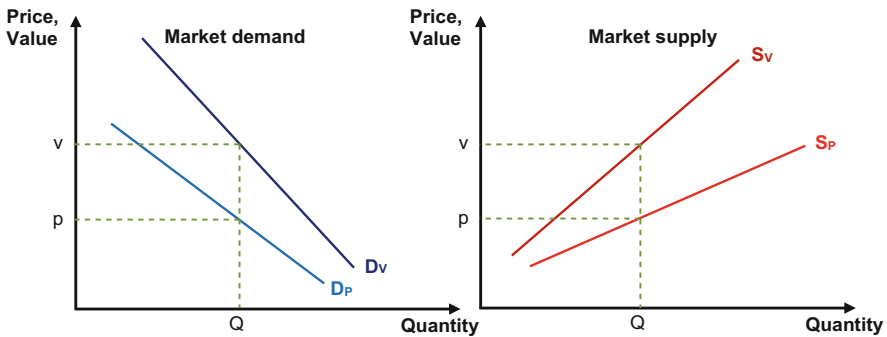


Fig. 1 Demand and supply. Source: Author’s own study

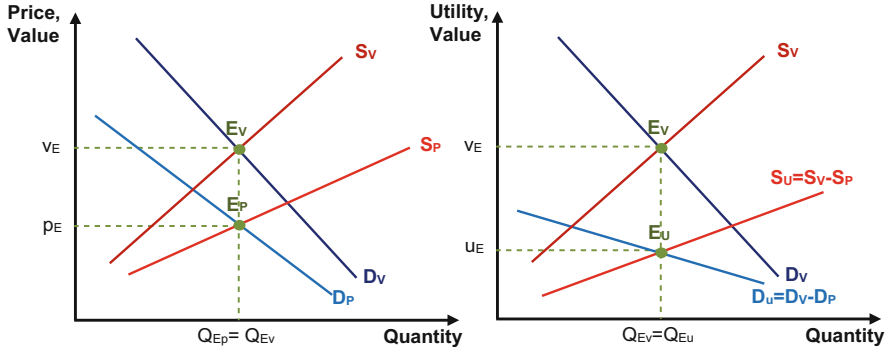


Fig. 2 Market equilibrium. Source: Author’s own study

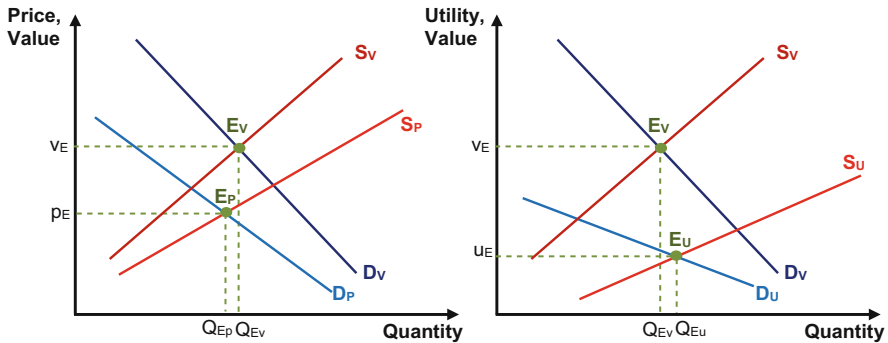


Fig. 3 Market shortage. Source: Author’s own study

supplied in production, while the consumption supply (S_U) presents the relationship between utility and quantity supplied in consumption.

Market equilibrium occurs at the equilibrium value (v_E), where the production equilibrium quantity (Q_{Ep}) is equal to the consumption equilibrium quantity (Q_{Eu}) in a given period. The production equilibrium (E_P) determines the equilibrium price (p_E) where the production quantity demanded (Q_{Dp}) is equal to the production quantity supplied (Q_{Sp}), and the consumption equilibrium (E_U) determines the equilibrium utility (u_E) where the consumption quantity demanded (Q_{Du}) is equal to the consumption quantity supplied (Q_{Su}) as shown in Fig. 2. Market demand (D_V) and market supply (S_V) present the market value of a commodity (v_E) depending upon both production and consumption in the market, in which the consumption demand (D_U) presents the additional value in consumption ($D_U = D_V - D_P$) and the consumption supply (S_U) presents the additional cost in consumption ($S_U = S_V - S_P$).

When the production equilibrium quantity (Q_{Ep}) is less than the consumption equilibrium quantity (Q_{Eu}), market disequilibrium and market shortage will occur as illustrated in Fig. 3. In order to reduce market shortages, the production supply (S_P)

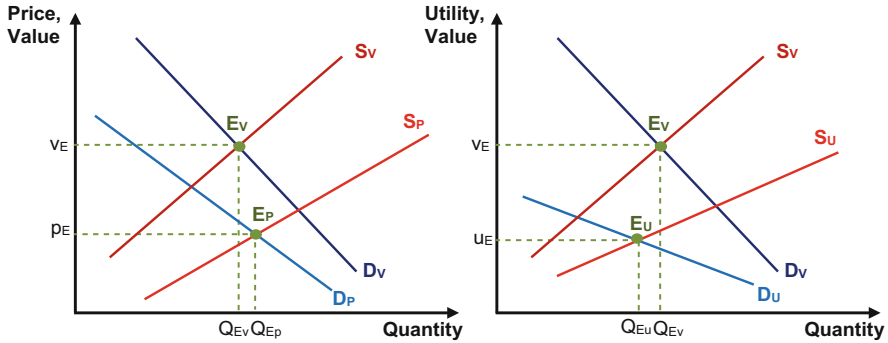


Fig. 4 Market surplus. Source: Author’s own study

will increase and the consumption supply (S_U) decrease correspondingly due to no changes in the market supply ($S_V = S_P + S_U$) in the short run. The production supply (S_P) is adjusted to reduce the marginal production cost (MC_1), which also increases the marginal consumption cost (MC_2) and consequently reduces the consumption supply (S_U). This process occurs until the market equilibrium is reached at which $Q_{E_p} = Q_{E_v} = Q_{E_u}$.

When the production equilibrium quantity (Q_{E_p}) is greater than the consumption equilibrium quantity (Q_{E_u}), market disequilibrium and market surplus will occur as illustrated in Fig. 4. In order to reduce the market surplus, the production supply (S_P) will decrease. This causes increase in the consumption supply (S_U) due to no changes in the market supply ($S_V = S_P + S_U$) in the short run. The production supply (S_P) is adjusted via increasing the marginal production cost (MC_1), which reduces the marginal consumption cost (MC_2) and increases the consumption supply (S_U). This process occurs until the market equilibrium is reached at which $Q_{E_p} = Q_{E_v} = Q_{E_u}$.

Whenever there are changes in market supply or market demand under exogenous effects that cause market disequilibrium. To reach the new market equilibrium, the production supply (S_P) is adjusted from changes in the production demand (D_P) and marginal production cost (MC_1), and the consumption supply (S_U) is also adjusted from changes in the consumption demand (D_U) and marginal consumption cost (MC_2). Therefore, the production supply (S_P) and the consumption supply (S_U) play the important role in explaining the mechanism of market equilibrium. Although the theory of rational choice directs the individual behavior towards production equilibrium and consumption equilibrium, but the ultimate decisions in production and consumption rely on the cooperative behavior towards market equilibrium status.

The question is whether producers and consumers can adjust their individual behaviors toward the cooperative behavior to achieve the market equilibrium? According to the neoclassical choice theory, producers will decide at the production equilibrium quantity (Q_{E_p}) to maximize firm profit (production surplus), while consumers will decide at the consumption equilibrium quantity (Q_{E_u}) to maximize

customer utility (consumption surplus). When the market is in disequilibrium status, market surplus or market shortage provides producers and consumers the ability to change their behavior (or goals) to reach the new market equilibrium. Meanwhile, the behavior of producers and consumers is adjusted via changing the production supply (S_P) and the consumption supply (S_U) to reach a balance between production surplus and consumption surplus in the market. The value balance is also a necessary condition for the market equilibrium. The crucial question is whether the market supply responds to market demand to reach the new market equilibrium. The answer in the next section is the key point to explain market behavior toward the market equilibrium.

3 Market Behavior

The market behavior starts from the decision-making behavior of producers and consumers in the value creation system with the integration of production and consumption as shown in Fig. 5. In the value creation system, the firm (producer) is the value facilitator and provides the value foundation of a commodity that is transferred to the consumer through the exchange process in the market, in which the customer is the value creator during the consumption process.

In the production process, firms use production inputs to create the value foundation of the commodity. The Cobb Douglas production function illustrates the relationship between total production output and production inputs as follows:

$$Q = f(K_1, L_1) = A_1 \times K_1^{\alpha_1} \times L_1^{\beta_1} \tag{1}$$

where Q is total production output. A_1 is total factor productivity in production. K_1 and L_1 are capital input and labor input in production, respectively. α_1 and β_1 are the output elasticities of production inputs. By using the least-cost combination of production inputs, production cost function (TC_1) can be determined as follows:

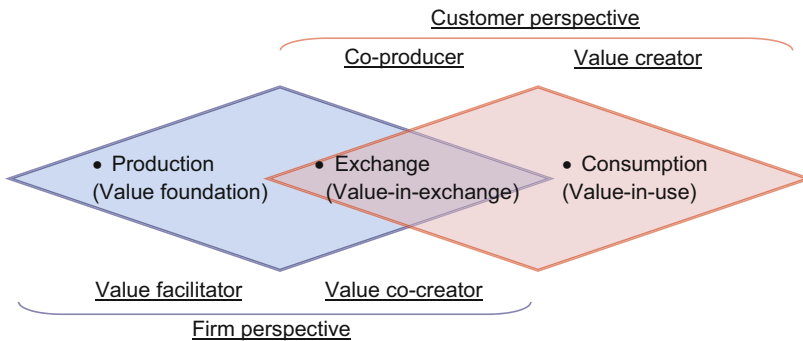


Fig. 5 Value creation system. Source: Adapted from Grönroos and Voima (2012)

$$TC_1 = w_{K_1} \times K_1 + w_{L_1} \times L_1 \quad (2)$$

where w_{K_1} and w_{L_1} are unit production costs of capital and labor. Profit function is determined by the following formula:

$$\Pi = TR - TC_1 = p \times Q - w_{K_1} \times K_1 - w_{L_1} \times L_1 \quad (3)$$

where Π is firm profit and TR is total revenue ($TR = p \times Q$).

In the consumption process, customers may add consumption inputs to create the value of a commodity. Trinh (2018) proposes the consumption function under the Cobb Douglas form that presents the relationship between total consumption output and consumption inputs as follows:

$$Q = f(K_2, L_2) = A_2 \times K_2^{\alpha_2} \times L_2^{\beta_2} \quad (4)$$

where Q is total consumption output. A_2 is total factor productivity in consumption. K_2 and L_2 are capital input and labor input in consumption, respectively. α_2 and β_2 are the output elasticities of consumption inputs. By using the least-cost combination of consumption inputs, consumption cost function (TC_2) can be determined as follows:

$$TC_2 = w_{K_2} \times K_2 + w_{L_2} \times L_2 \quad (5)$$

where w_{K_2} and w_{L_2} are unit consumption costs of capital and labor. Utility function is determined as follows:

$$U = TU - TC_2 = (v - p) \times Q - w_{K_2} \times K_2 - w_{L_2} \times L_2 \quad (6)$$

where U is customer utility and TU total utility ($TU = u \times Q = (v - p) \times Q$).

The value creation system is an integration system of production and consumption, where value is created in the consumption. Thus, total cost function (TC) is the sum of the production cost (TC_1) and the consumption cost (TC_2).

$$TC = TC_1 + TC_2 = w_{K_1} \times K_1 + w_{L_1} \times L_1 + w_{K_2} \times K_2 + w_{L_2} \times L_2 \quad (7)$$

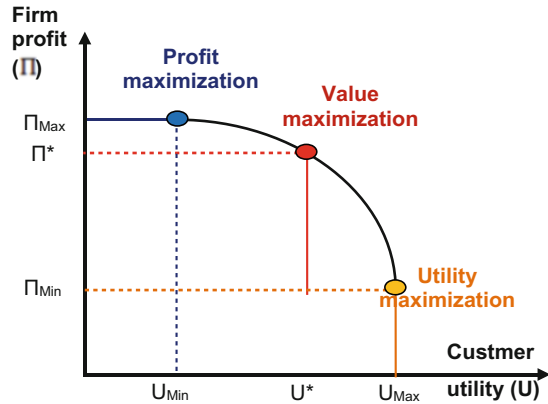
Net value function (V) is the sum of firm profit (Π) and customer utility (U) as follows:

$$\begin{aligned} V &= \Pi + U = v \times Q - (w_{K_1} \times K_1 + w_{L_1} \times L_1 + w_{K_2} \times K_2 + w_{L_2} \times L_2) \\ &= TV - TC \end{aligned} \quad (8)$$

where V is net value and TV is total value ($TV = v \times Q$).

Trinh (2018) has undertaken an experimental simulation to conduct the existing balance between firm profit and customer utility in the value creation system. The

Fig. 6 Value balance between firm and customer.
Source: Author’s own study



experiment reveals that there exists an optimal combination of production and consumption that maximizes the net value (the sum of firm profit and customer utility) as illustrated in Fig. 6. The value balance is an important foundation toward the cooperative behavior and the market equilibrium. In addition, Trinh (2019) conducts the relationship between rational choice and market equilibrium, in which the relation between market equilibrium and rational choice is the base to formulate economic surplus in production and consumption.

Profit-maximizing firm produces at the quantity at which marginal revenue (MR) equals marginal production cost (MC_1). At this quantity, the production supply (S_p) also intersects the production demand (D_p). As a result, the production supply function depends on both the marginal production cost and the production demand as follows:

$$p_s(Q) = MC_1 - p'_D(Q) \times Q \tag{9}$$

where MC_1 is the marginal production cost and $p'_D(Q)$ is the first derivative of production demand function ($p_D(Q)$).

When the production demand is perfectly elastic ($p'_D(Q) = 0$), then the marginal revenue (MR) is identity to the production demand (D_p), and the production supply (S_p) is identity to the marginal production cost (MC_1). Figure 7 illustrates the production supply (S_p) under imperfectly elastic demand and perfectly elastic demand.

Utility-maximizing customer will consume at the quantity at which marginal utility (MU) equals marginal consumption cost (MC_2). At any quantity where $MU = MC_2$, the consumption supply (S_U) intersects the consumption demand (D_U). Thus, the consumption supply depends on both the marginal consumption cost and the consumption demand as follows:

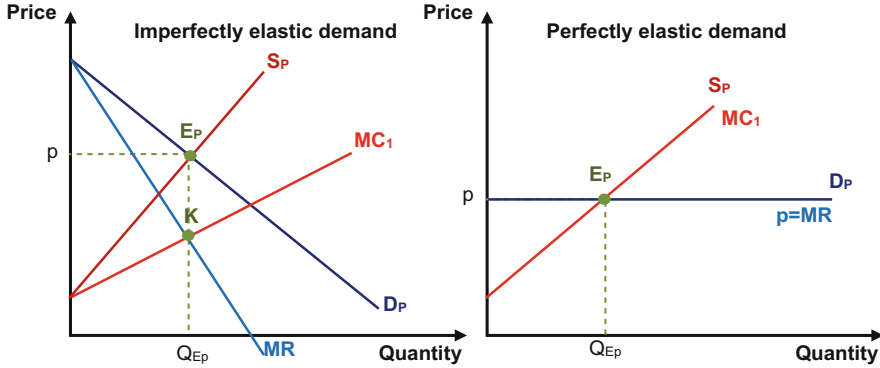


Fig. 7 Production supply (S_P) under market structure. Source: Author’s own study

$$u_S(Q) = MC_2 - u'_D(Q) \times Q \tag{10}$$

where MC_2 is marginal consumption cost and $u'_D(Q)$ is the first derivative of the consumption demand function ($u_D(Q)$).

In the value creation system, the net value (the sum of firm profit and customer utility) will be maximum at the quantity at which the marginal value (MV) equals the total marginal cost ($MC = MC_1 + MC_2$). At this quantity, the market demand (D_V) will intersect the market supply (S_V). As a result, the market supply depends on both the total marginal cost and the market demand as in Eq. (11).

$$v_S(Q) = MC - v'_D(Q) \times Q \tag{11}$$

where MC is total marginal cost and $v'_D(Q)$ is the first derivative of the market demand ($v_D(Q)$).

4 Behavioral Empirics

The neoclassical theory of market equilibrium is criticized to the assumption of other factors held constant in the market equilibrium model, while the fact is that these factors have influence on behaviors and decisions of production and consumption in the actual market. Thus, it requires an empirical theoretical framework to conduct the effects of these factors in the model of supply and demand. The framework is also an important bridge between theoretical model and empirical research on market behavior. In the market equilibrium model, the relationship between price and quantity as well as value and quantity is endogenous, while exogenous factors are given to define this endogenous relationship. When exogenous factors change, these changes affect demand and supply that lead to a change in market equilibrium.

While the theoretical demand (or supply) function presents the endogenous relationship between price and quantity demanded (or quantity supplied) with the assumption of other things held being constant, the empirical demand (or supply) function is obtained from the basic regression analysis with time series data. Thus, the empirical demand (or supply) function relaxes the assumption of *ceteris paribus* (other things held constant). In fact, there are many exogenous factors that have influence on demand and supply in the actual market. Trinh (2020) considers exogenous effects on the endogenous relationship of the production demand function in a given period as follows:

$$p_D(Q) = \alpha_i + \beta_i \times p_{D0}(Q) \quad (12)$$

where $p_{D0}(Q)$ is the initial production demand function and $p_D(Q)$ is the new production demand function under the effect of exogenous factor i .

When all exogenous factors are considered in the production demand function, the aggregative exogenous effect on the production demand function is given as follows:

$$p_D(Q) = \sum_{i=1}^m \alpha_i + \prod_{i=1}^m \beta_i \times (p_{D0}(Q)) \quad (13)$$

In the model of the production supply, the production supply function depends on both the marginal production cost (MC_1) and the production demand $p_D(Q)$. When exogenous factors are considered in the model of the marginal production cost (MC_1), the effect of exogenous factors on the marginal production cost is given in the following formulation:

$$MC_1(Q) = \sum_{i=1}^m \lambda_i + \prod_{i=1}^m \gamma_i \times (MC_0(Q)) \quad (14)$$

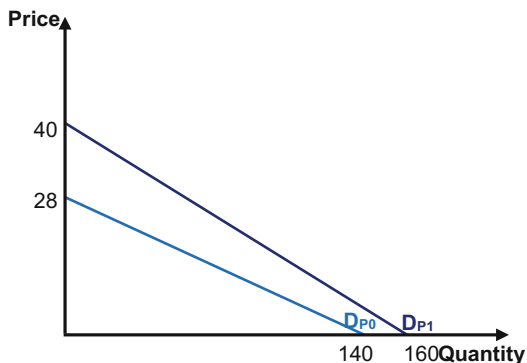
where $MC_0(Q)$ is the initial function of marginal production cost and $MC_1(Q)$ is the new function of marginal production cost under the effect of all exogenous factors.

The following example illustrates how to estimate the exogenous effects of income and substitution on the production demand. The initial production demand is given as follows:

$$p_{D0}(Q) = a + b \times Q = 28 - 0.2 \times Q \quad (15)$$

The regression analysis is used to estimate the linear relation between the income factor and the production demand with time series data as follows:

Fig. 8 The income effect on the production demand.
Source: Author's own study



$$p_D(I) = c_1 + d_1 \times I = 30 - 5 \times I \tag{16}$$

$$Q_D(I) = c_2 + d_2 \times I = 40 + 20 \times I \tag{17}$$

The income effect on the production demand function is determined as follows:

$$\beta_I = \frac{d_1}{d_2} \times \frac{1}{b} = \frac{-5}{20} \times \frac{1}{-0.2} = 1.25 \tag{18}$$

$$\begin{aligned} \alpha_I &= \frac{c_1 \times d_2 - c_2 \times d_1}{d_2} - \frac{a}{b} \times \frac{d_1}{d_2} = \frac{30 \times 20 - 40 \times (-5)}{20} - \frac{28}{-0.2} \times \frac{-5}{20} \\ &= 5 \end{aligned} \tag{19}$$

The new production demand function under the income effect (as illustrated in Fig. 8) is estimated as follows:

$$\begin{aligned} p_{D1}(Q) &= \alpha_I + \beta_I \times p_{D0}(Q) = 5 + 1.25 \times (28 - 0.2 \times Q) \\ &= 40 - 0.25 \times Q \end{aligned} \tag{20}$$

Similarly, the linear relation between the substitution factor of commodity price (Y) and the production demand with time series data is given as follows:

$$p_D(Y) = 30 - 10 \times Y \tag{21}$$

$$Q_D(Y) = 40 + 20 \times Y \tag{22}$$

The substitution effect of commodity price (Y) on the production demand function is determined as follows:

Fig. 9 The substitution effect of commodity price Y. Source: Author's own study

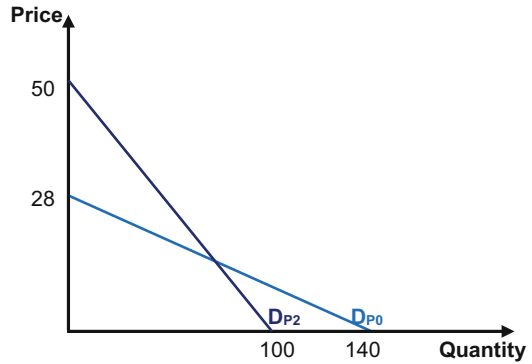
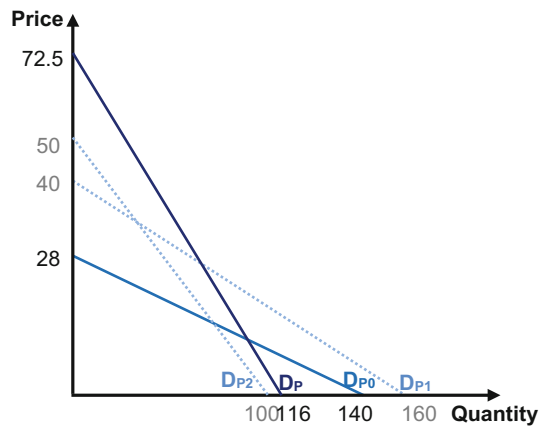


Fig. 10 The aggregative effect of income and substitution. Source: Author's own study



$$\beta_Y = \frac{-10}{20} \times \frac{1}{-0.2} = 2.5 \tag{23}$$

$$\alpha_Y = \frac{30 \times 20 + 10 \times 40}{20} - \frac{28}{-0.2} \times \frac{-10}{20} = -20 \tag{24}$$

The new production demand function under the substitution effect of commodity price (Y) (as illustrated in Fig. 9) is estimated as follows:

$$\begin{aligned} p_{D_2}(Q) &= \alpha_Y + \beta_Y \times p_{D_0}(Q) = -20 + 2.5 \times (28 - 0.2 \times Q) \\ &= 50 - 0.5 \times Q \end{aligned} \tag{25}$$

The production demand function under the aggregative effect of income and substitution (as illustrated in Fig. 10) is estimated as follows:

$$\begin{aligned}
 p_D(Q) &= \sum_{i=1}^m \alpha_i + \prod_{i=1}^m \beta_i \times (p_{D0}(Q)) \\
 &= (5 - 20) + (1.25 \times 2.5) \times (28 - 0.2 \times Q) = 72.5 - 0.625 \times Q
 \end{aligned}
 \tag{26}$$

When the exogenous factors are investigated in the market equilibrium model, the market equilibrium may be changed under these exogenous effects. While the regression analysis is used to estimate the separate effect of each exogenous factor, the equilibrium analysis is used to determine the new market equilibrium under the aggregative effect of all exogenous factors.

5 Conclusions

The paper defines the relationship between price and value of a commodity in the market, Market demand includes production demand and consumption demand, market supply includes production supply and consumption supply. The relationship of demand and supply determines price and value of a commodity in the market; it also indicates that the exchange is the ending point of the production but the starting point of the consumption. Thus, price plays as a role of value distribution between production surplus and consumption surplus in the market.

Market equilibrium occurs at market value at which the production equilibrium quantity is equal to the equilibrium consumption quantity. When the market is in disequilibrium status, the market supply will adjust in responding to changes in market demand and marginal cost until reaching the new market equilibrium. The rational choice theory indicates that producers make decisions to maximize firm profit (production surplus) and consumers make decisions to maximize customer utility (consumption surplus). However, decisions in production and consumption rely on the status of market equilibrium, in which market supply depends on its marginal costs and market demand. As a result, market supply will adjust toward market equilibrium that will maximize the total surplus (production surplus and consumption surplus) at the equilibrium quantity at which the marginal value is equal to the total marginal cost.

The theory of market equilibrium explains the endogenous relationship between price and value under supply-demand equilibrium and given exogenous relationship. However, market behavior is simultaneously reflected through endogenous and exogenous factors in the market equilibrium model. Definition of endogenous and exogenous factors is very important to empirical researches on market behavior. While the theoretical model provides the mechanism of market equilibrium, market behavior is explained through endogenous and exogenous relations in empirical researches. The paper has expanded the theory of market equilibrium with decisions in production and consumption, in which the market supply depends not only on marginal cost but also on market demand. In addition, the market equilibrium model

takes into consideration endogeneity and exogeneity; it provides the extended insights on market behavior.

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Part VI
Public Economics

The Mapping of the Migration Areas in Greece: An Analysis of the Policies of the Socio-integration and Criminality According to Chicago Mapping



Maria Vlachadi, Georgia Koufoti, and Athanasios Kounios

Abstract The purpose of this research is to map the effect of migration flows and crime on the monitoring of crime in Greece and, in general, its capital, Athens. From a political economy perspective, one version of the study of the phenomenon of the settlement of migration flows and the theoretical understanding of its causes and significance in the modern age can also be considered. Specifically, there is a growing demand for specific types of employment and a flexible, unprotected, and low-cost workforce. Undocumented immigrants are typically clustered in regions, sectors, and markets where the availability of cheap and versatile labor is growing and which tend to avoid regulation and oversight: in global major cities and rural areas, in areas such as manufacturing, tourism, small businesses, and households. Large urban centers, for instance, not only provide anonymity but provide a variety of opportunities for employment in emerging unofficial sectors. Moreover, in times of economic crisis and galloping unemployment, irregular migration is associated with real or alleged criminality.

Keywords Socio-integration · Criminality · Mapping · Theory of criminalization of the School of Chicago · Migration flows

1 Introduction

Immigration does not seem to be formally related to the trend of criminality, however. Many studies draw this conclusion and are in stark contrast to both the media debate and the “common understanding” of immigration. Crime has been

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shown to be obedient to other concerns, such as deprivation and long-term unemployment, in terms of the factors that caused it. Notwithstanding the unfavorable attention it has received, the Chicago School is one of the most important studies linking the urban landscape to crime. Shaw and McKay (1942) have shown that there is a zone in which crime is commonplace and have concluded that the area with the most criminal activity is around the commercial center of the city (Shaw and McKay 1942). Based on the Chicago School's theory, the causes of crime are reflected not only in the criminal but also in the space and socioeconomic situations that lead to crime.

Specifically, there is a growing demand for specific types of employment and a flexible, unprotected, and low-cost workforce. Based on these parameters are the structural processes, political developments, and other factors that cause migration on a global scale but also in the Greek area (Farsedakis 2005). Even regarding illegal immigrants, even though they lack legal documents and are therefore invisible to the system and represent the "dark number" of immigration prevalence, most often illegal immigrants accept any job for any pay, without social security and without union representation (Warner and Wilcox Rountree 1997). Urban planning and urban mapping have a special role to play in the prevention of crime, and the purpose of this research is to map the effect of migration flows and crime on the monitoring of crime in Greece and, in general, its capital, Athens. Given the geopolitical conditions of each capital, it has been observed that the major problem of crime is usually directed either in the city center or in the industrial area where unemployment is booming. This bibliographic research refers to the differentiation of this situation today in terms of immigration-related crime as there is a greater concentration of people in areas with opportunities to move abroad, for example, the Port of Piraeus or in areas already inhabited by people from the country of destination.

2 Criminology Aspects

Crime as an act presupposes the perpetrator, one or more, and the victim or victims (Block and Block 1984). The most common cause of crime in the world is property crime or various types of fraud. However, it is evident that criminology is an area of research far beyond the study of fraud. The maturity of the person will ultimately determine the extent of crime as an indicator of human nature by internal and external entities (Stattin and Romelsjo 1995).

Crime is commonly considered to be a conduct which is prohibited by criminal law. In other words, no act can be treated as a crime, no matter how unethical or harmful it may be, unless it has been recognized as criminal act under national law, either at the level of written rule or at the level of customary law (Gearey et al. 2009). This perception seems quite simple. Indeed, this alludes to the procedures in which some dangerous acts and victims are recognized and regarded as part of the criminal issue, whereas others remain anonymous, either as a dark number or as a

consequence of non-intervention and correction (Canter and Youngs 2016). A philosophical approach to the study of criminal activity and its impact on individuals and communities consequently necessitates recognition of concerns such as what is “crime?” and how are lawful conceptions of “crime” and its victims generated? Victims also have a crucial role to play in shaping the criminal justice system. Without this particular versatility, a substantial part of this process of the criminal justice system would not have existed (Carrabine et al. 2009).

There are three elements that make up the criminal phenomenon, namely, the rule, referring to the criminal law; the offense, that is, the crime itself; and the penalty that is mentioned in the sentence. All societies have rules governing the behavior of their members (Hogg 2002). These social rules define and reflect the values of a society. Some of the social rules are also converted into legal rules. Through the political and judicial process, laws are passed, interpreted, and enforced (Farsedakis 2005). Criminal negligence that leads to injuries and deaths in the workplace, environmental offenses, manufacturing and selling unsafe products, business misconduct, abuse of power by the state, and so on are rarely considered a “real” crime (Morrison 2004). These are mostly crimes that do not have an imminent and visible victim. They are quite different for no reason due to the current lack of information of the victims (Schur 1965).

According to the Basic Principles of Justice for Victims of Crime and Abuse of Power, the term “victims” indicates individuals who, directly or indirectly, have experienced harm, including physical or mental damage, emotional trauma, economic loss, or severe damage to their fundamental human rights, through acts or omissions which are an infringement of the criminal laws of the Member States, including those outlawing criminal abuse of power (United Nations Development Fund for Women (UNIFEM) 2015). Attempts have been made to broaden the definition of “victims” (e.g., to include both directly and indirectly victims) and to include a range of violations and harms involved in criminal abuse of power (such as the deterioration of fundamental rights of the victim) in the 1985 United Nations Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power. Additionally, there are no specific and unmistakable requirements to determine that actions identified as “illegal” are always harmful to society. “Victimless crime” as in some sexual acts involving consenting adults, prostitution, and the procurement and selling of certain illicit drugs is often related to in this sense (Schur 1965).

In 1960, radical criminology (Marxism) emerged, according to which crime resulted in deprivation of basic individual human rights. The emergence of critical criminology began in 1968 when a group of social scientists set up the National Council on Derogation (NDC) in Britain. Their interest in the authenticity of diversity and the unique worlds of everyday life was a continuation of a tradition that began in 1930 with the Chicago School and its theories of social interaction. Critical criminologists have attempted to shift their research attention beyond the character and status of the aberrant, subject to state and social interference. Crime is closely linked to social circumstances and directly related to the historical conditions that govern a society at a given time (Cohen 1998). Additionally, the theory of holistic choice was based on utilitarianism and was started by Cesare Beccaria and

Jeremy Bentham (McCarthy and Chaudhary 2014). This philosophy was replaced by positivism and the Chicago School until it came to prominence in 1970. Cesare Beccaria and Jeremy Bentham argue that criminals weigh the costs and benefits of deciding whether or not to commit a crime. They will also try to minimize the risks when they commit a crime. The Chicago suburbs where the surveys were conducted were close to industrial areas, home to heterogeneous cultural and racial groups, and were characterized by poverty, lack of social control, and the dominance of antisocial perceptions. Shaw and Mackay in 1925 referred to a criminal tradition or “cultural transfer” of criminal values to areas of high crime (Shaw and McKay 1942). Shaw and McKay’s conclusion was that the influence of juvenile criminals and the social environment in which young people grew up resulted in their involvement in crime, which the community not only tolerated but also endured (McLaughlin 2001).

The horizontal distribution of migrant owners in the Municipality of Athens demonstrates a dual geography as presented by Balambanidis. On the one side, some increased concentrations in the north and west of Omonia Square, namely, Vathi, Attica, and Agios Panteleimonas, and in neighborhoods such as Kipseli, Victoria, Patisia, Sepolia, and Agios Nikolaos are detected (Balambanidis 2015). These are zones close to existing railway stations (at Larissa and Attica Stations) and downtown, and since the 1990s they have an important building stock, old and inexpensive, as well as largely abandoned by “indigenous” populations, seeking better living conditions in remote suburbs (Arapoglou and Maloutas 2011).

Immigrants entering the EU from third-world countries are an important source of both population and labor mobility. In Fig. 1 the number of residence permits issued to migrants of the Municipality of Athens and their fluctuation for the years 2001 to 2016 are represented, and in Fig. 2 the total number of immigrants per nationality and gender in Greece in comparison to other countries is captured graphically. The principles—or at least the underlying assumptions—on which social control theories are based can be traced back to Hobbes’ work in the tradition of rational interpretation, namely, Freud and Durkheim, respectively, and to the psychological and sociological variants of the predetermined actor model (Hobbes 1968; Freud 1927; Durkheim 1897/1951). According to Durkheim, the conflict that may arise in areas of multinational individuals’ needs, desires, or expectations naturally arise in the individual. The theory of social control basically stems from an understanding of human nature, which proposes that there are no physical boundaries to basic human needs and desires (Burke 2009). It is obvious that when a person owns a property, the criminality rates appear to lower due to the aspect of community. There is also a problem with what is called an “ecological error.” It cannot be assumed that, because some areas are more “criminal,” everyone in these areas is likely to be criminals. This is simply not true (Carrabine et al. 2009).

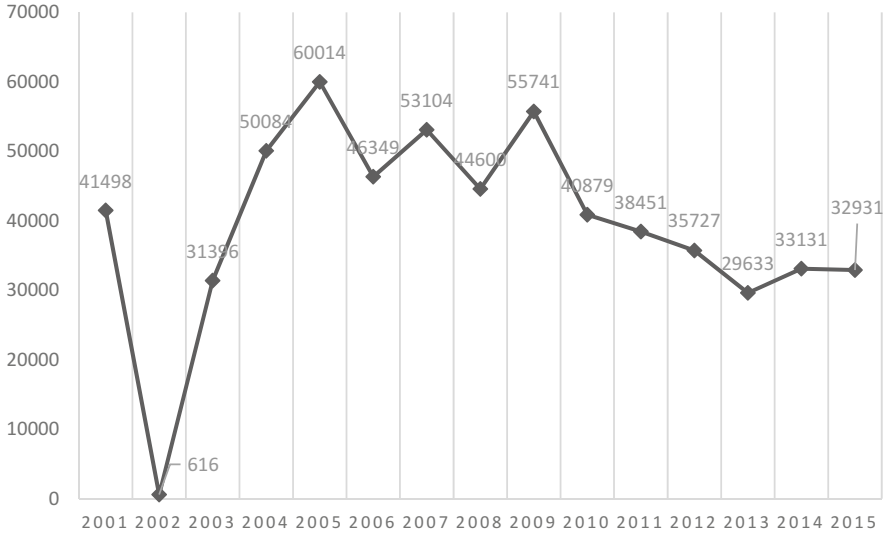


Fig. 1 Number of residence permits issued to migrants of the Municipality of Athens and their fluctuation over time, 2001–2016. Source: OECD (2018)

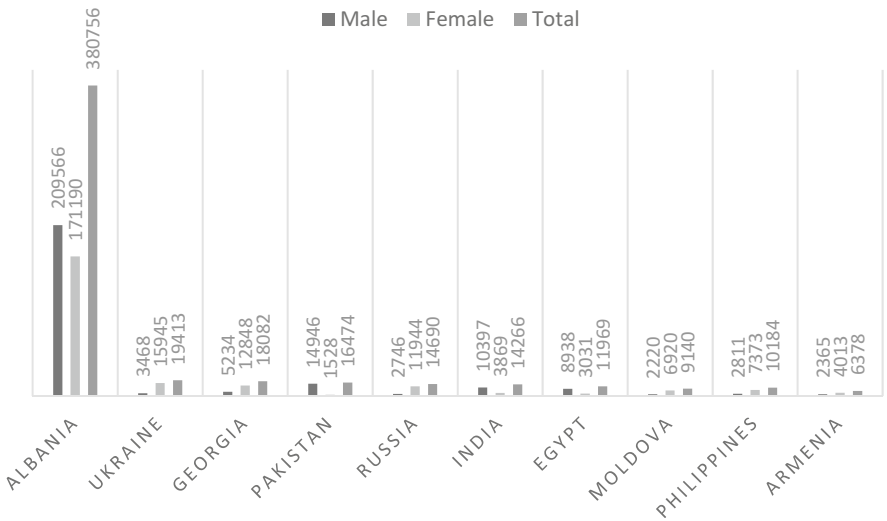


Fig. 2 Total number of immigrants per nationality and gender in Greece (19-4-2016). Source: OECD (2018)

3 Discussion

Crime as a social phenomenon is not detached from the wider space in which it appears and develops. Thus the rapid economic changes, unemployment, the transition of the economy to the globalization phase, and the changes of policies in the neighboring countries of the Balkans and Eastern Europe, which have stuck hundreds of thousands of economic immigrants, have triggered the crime in our country (Lianos 2004). The consequences of crime are enormous both on a personal and financial level. Indicators of the levels of violence a society presents in space and time are the most reliable measure of social pathogenicity (Angelidou 2008). The social and collective (financial, psychological, moral, etc.) costs of crime include all the direct and indirect damages that crime inflicts, both on citizens (already victims or potential victims) and on the state that has political responsibility for prevention, deterrence, and suppression of crime (Finckenauer 2005). The causes investigated are biological on the one hand (such as physical and mental properties, psychotic abnormalities, mental illness, race, gender, age) and on the other hand social (family status, education, economic factor, occupation, climate, time of year, education, alcohol, gambling, drugs, indecent art, etc.) (Bilgili et al. 2019). The means of combating crime are the various penalties, deprivation of liberty, security measures for adults, security measures for minors, penitentiary institutions for suspended sentence and suspended dismissal, social policy measures, protection of minors, and crime prevention measures (Nomikos 2010).

But the consequences of crime are not only limited to offending the personal belongings and rights of specific persons who are victims of illicit acts but are also expanding dangerously, instantly creating a climate of insecurity for citizens, undermining the cohesion of the social fabric, and threatening to democratize them.

Anti-crime policy is the responsibility of the state and is practiced by social workers, judges, police officers, and, more generally, public authorities, both at the stage of crime prevention and repression. *Ceteris paribus* institutional intervention is a matter of paramount importance and is a matter of immediate priority (European Commission 2017). Due to the advancement of technology and the deepening of social sciences in areas related to biological and genetic sciences, concerns such as whether biology is directly linked to criminology or whether a criminal individual is born or influenced by his/her cultural environment remain as of today. Many scientists disclose that the dogmatic complexity of the sociological connection with criminal activity can overlook indications that many characteristics, including human interests and preferences, are significantly influenced by genetics (Schermer and Vernon 2008).

The criminality of immigrants depends on a variety of factors that vary depending on the country of residence (Webber 2004). One of the considerations that play a significant role in the criminality of immigrants is their extent of incorporation into the host country. Aliens contribute to a demographic group that represents not only the clash of cultures between the country of origin and the host country but also their different treatment of administration and justice, primarily because of their origin.

According to the theory of the dispute of civilizations (Tusicsny 2004), in accordance with the rules of criminal law, the social groups tried to maintain the uniform conduct of their members by combining all those residing within the political boundaries of their respective states and by requiring each state to enforce them.

The essence of these laws, the form or manner of behavior that they forbid, and the extent of the punishments that are imposed in the event of violation depend on the nature and desires of those classes of the community impacted by the regulations (Bell et al. 2013). Additionally, an individual is born and raised in a specific cultural environment from which beliefs and ideas are shaped, embedded in the spiritual world, and transformed into personalized components (Baker 2015). Each person belongs to a number of groups that have their own rules and standards. The more dynamic a society is culturally, the more groups will be shaped by their rules, and the more likely they will be to be distinctive. Therefore, when each group imposes specific rules of conduct, there is an inevitable conflict between the rules of one group and the other.

Nevertheless, apart from the degree to which immigrants are incorporated into the host country, another aspect linked to their criminality concerns the labor market, as many immigrants are victims of the exploitation of the illegal labor network (Pinotti 2017; Fransen and Caarls 2018). In this context, international trafficking and organized crime circuits have developed activities aimed at exploiting the poverty and inexperience of people entering their host countries (Ramirez et al. 2018).

After the intense changes of the 1980s and 1990s in the field of services and the development of large-scale office facilities outside the city center and along major roads, Athens has great diversity wherein the Historical Center of Athens and especially the area around the Sintagma around Omonoia and along the streets of Akadimia, Stadiou, Panepistimiou, and Amalia gather the majority of public services that each immigrant may possibly visit to achieve provided services. Further information for the institutional mapping of Athens may be raised in Working Together for Local Integration of Migrants and Refugees in Athens of OECD (OECD 2018).

4 Conclusion

The overwhelming majority of the above migrants are incredibly difficult to integrate in Greek society due to racial, religious, and cultural factors. Greek government agencies need to comprehend that the time when the concern of illegal migration could be “remedied” by arid discussions and clashes between politicians has long since faded. Globalization can also affect and differentiate the phenomenon of migration. Economic migrants continue to exist, but places of origin and destination differ, and other types of migrations occur. As is well established, and in especially through immigration studies, the increase in the number of immigrants does not result in an increase in crime. The stereotypical behavior of immigrant offenders continues to be skewed by survey results on the percentage response to crime. This is not accurate, of course, with many reports suggesting the contrary.

Proponents point out that long-term immigration would decrease national crime rates and will not lead to their rise, provided that crime is a type of violent behavior that is not solely dependent on economic conditions and difficulties. On the other hand, it can be seen that particular groups of immigrants, i.e., the micro stage, appear to be more or less violent compared to the local population. To conclude, all sub-cases will need further investigation.

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Key Factors for Adapting the Public Procurement System in Poland to the Industry 4.0 Concept



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Abstract The aim of the article is an attempt to indicate the most important controllable factors from the point of view of decision-makers regarding the adaptation of the public procurement system to the concept of economic policy consisting in the implementation of technological solutions of Industry 4.0. In the first stage of research, the Delphi method was used to identify and create a database of potential factors, using ten experts. To identify the key factors in adapting the public procurement system to the concept of Industry 4.0, the network thinking methodology was used, involving 15 specialists from the world of science and business practice. The time range of the research covers the period May to June 2019. The results of the research conducted in the article indicate, among others, systemic factors such as the wider electronicization of the public procurement system and the improvement of statutory solutions to increase innovation. They also indicate factors related to such important aspects of adaptation as the competences and qualifications of the staff responsible for conducting public tenders.

Keywords Public procurement · Industry 4.0 · Network thinking methodology · Poland

1 Introduction

The concept of Industry 4.0 is relatively new in literature. For the first time, it appeared in the public domain in 2011 during the Hannover Trade Fair as a name for a joint initiative of the representatives of the world of business, politics, and science, promoting the idea of strengthening the competitiveness of German industry and computerization of manufacturing processes (Müller et al. 2018; Rao and Prasad 2018). In 2012, a task force led by Siegfried Dais from Bosch presented the

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government with a report on recommendations for starting a project known today as Industry 4.0 (Ferber 2012). For the concept of the Fourth Industrial Revolution, product individualization (customization) is important, and cost reduction, performance improvement, and offering improved products and services should be achieved by automating production based on real-time data usage and exchange using artificial intelligence. Industry 4.0 is also referred to as “digitization” and “digitalization” of the industry due to the fact that it is based to a large extent on computer and network solutions (Pieriegud 2016). Over the past few years, numerous attempts have been made to define what the Fourth Industrial Revolution actually is. Selected definitions are given below:

- “Industry 4.0 describes growing digitization and automation of the production environment, as well as the creation of digital value chains to enable communication between products, their environment and business partners” (Lasi et al. 2014, p. 239).
- “. . . it is a joint definition of technology and the concept of organization of the value chain” (Hermann et al. 2016, p. 4).
 - “. . . it is an integrated, adapted, optimized, service-oriented and interoperable production process that is correlated with algorithms, large data sets and advanced technologies” (Lu 2017, p. 1).
 - “. . . it refers to increased digitization and automation of the production environment, as well as increased communication enabled by the creation of a digital value chain” (Oesterreich and Teuteberg 2016).

There is also no generally accepted and defined range of technologies that make up Industry 4.0. The most important terms associated with it include digitization, optimization, and personalization of production; automation and adaptation; human-machine interaction (HMI); value-added services; as well as automated data exchange and communication (Roblek et al. 2016; Posada et al. 2015; Kovács and Kot 2017; Veselovsky et al. 2018; Abbas 2018).

The implementation of new digital and autonomous technologies and the reorganization of the production process require the organization to possess completely new hard competences on the borderline of automation, IT, and analytics. IT departments at various companies will have to integrate their knowledge with production operators so that there is a common understanding of why production utilizes digital solutions. The success factor will lie in increasing employees’ scope of decision-making and responsibility so that their work is based on creating innovation and coordinating production processes. The new approach to project implementation and problem-solving also puts a lot of emphasis on teamwork in the organization and the ability to transfer knowledge and share experience in ways accessible to others (Astor 2017).

There also exist results of research carried out in recent years among Polish enterprises. The purpose of the analysis carried out by Astor was to investigate the stage of Industrial Revolution Polish companies were at. In 2016, numerous enterprises were based on the automation of production processes, while still nearly 30% largely depended on human labor with the support of electric machines or were

based on physical work of people. This means that in the era of Industry 4.0, almost every third Polish company shall master the technology of the previous Industrial Revolution that began in the 1960s. 25% of companies represent a positive phenomenon as they were already implementing digital technologies back in 2016. Only 6% of entrepreneurs described their organization as an Industry 4.0 enterprise (Astor 2017).

Another analysis on the subject of smart industry in Poland is a study conducted in cooperation with the Ministry of Development and Siemens in 2017. The study addresses, among others topics the technological advancement of enterprises in Poland and their motivation for transformation. One of the analyzed elements included technologies used by companies and predictions about technologies to be used in the future. According to the study, at least one of the innovative solutions was implemented in approx. 77% of all enterprises. The most commonly used technological solution was the partial automation of production implemented in almost every second company. Every third enterprise used mobile technologies. Robotization of entire production lines concerned about 13% of companies. Other technological solutions, such as IoT, Big Data, and additive manufacturing, were not commonly found in companies, and there were no plans to implement them in the near future (Ministry of Development and Siemens 2017). Most entrepreneurs (about 60%) seek to introduce innovation via the development of employees' skills and competencies through training. Every second Polish entrepreneur, however, aims to acquire new competencies within the organization, instead of developing their current staff. A similar number of companies strive for technological development by increasing spending on new technologies and raising funds outside the organization.

Over time, the number of enterprises that seek transformation to Industry 4.0 is going to grow—every fourth enterprise is on the way to this revolution. In contrast, expenditure on innovation is primarily intended for the automation of production. Interest in other digital technologies currently remains at a much lower level. It may result from the lack of needs to implement this type of solutions, the lack of financial resources, or an understanding of the essence of individual digital solutions.

How does the adaptation of Polish public procurement system to Industry 4.0 look like against this background? Data and statistics indicate that public procurement markets remain of great importance for the entire European Union. Public administration has in fact been the main consumer not only in Poland but throughout Europe, responsible for the expenditure of about 16% of the global product of the community. In this respect, it can crucially impact the increase in the innovativeness of national economies and create trends and solutions bringing them closer to Industry 4.0. Against this background, it should be emphasized that the public procurement market in Poland has been one of the most dynamically developing markets, and its estimated value constitutes about 9.5% of the gross domestic product. Therefore, it requires special interest of the authorities and carries great potential for creating new useful solutions for the society.

In recent years, there have appeared more and more literature items on both areas presented. Only in the years 2011–2017, it was possible to find 131 scientific articles

about Industry 4.0 in the Web of Science database. Simultaneously, there were 2022 and 14,700 in Scopus and Google Scholar, respectively (Ślusarczyk 2018). Accordingly, the issue of public procurement is very strongly represented in both national and global literature. In Poland, however, one can primarily find comments to the constantly amended Public Procurement Law Act and numerous guides on how to deal with public tenders. However, there still remains a lack of scientific studies in this area and especially those that would connect this issue with the concept of Industry 4.0. This gap has thus become the starting point for the research undertaken in this article.

The aim of this article is to attempt to indicate the most important controllable factors from the point of view of decision-makers regarding the adaptation of the public procurement system to the concept of economic policy, consisting in the implementation of technological solutions of Industry 4.0. The first stage of research involved the Delphi method to identify and create a base of potential factors, using one of the ten most-valued experts in Poland dealing with this subject in practice or theory. To identify the key factors in adapting the public procurement system to the concept of Industry 4.0, the network thinking methodology was used involving 15 specialists from the realm of science and business practice. The time range of the research covers the period between May and June 2019 and applies to the territory of Poland. The research fills the gap existing in the literature on the subject in the area of searching for key factors in adapting public procurement to the concept of Industry 4.0 in Poland. The article thus contributes to the material being the starting point for the discussion and comparison of the Polish public procurement system with other countries in the world in the context of solutions used in Industry 4.0.

2 Identification of Factors Using the Delphi Method

The *Delphi* method was developed at the American Center for Strategic Studies of RAND Corporation, in Santa Monica, California, in the early 1950s. The basis for this term was developed by Dalkey and Helmer (1963). *Delphi* is a qualitative method combining the knowledge and opinions of experts to reach an informed consensus regarding a complex problem. Its essence lies in the intentional group communication process of independent people who strive to solve a complex problem. This goal is achieved by using iterative rounds in which questionnaires are sequentially provided to experts, supplemented by feedback from previous rounds. This mechanism makes it possible to collect disputed opinions and assessments, which, combined with feedback, facilitate reaching a consensus called the Delphi effect (Powell 2003). The *Delphi* method involves at least two surveys aimed at a specific group of experts (Ragin-Skorecka and Wyrwicka 2016). In accordance with the methodology of the Delphi study, the following stages of activities were carried out:

- The conceptual phase, in which a question was asked about the factors influencing the adaptation of the public procurement system to the concept of Industry 4.0 in Poland. In this phase, a questionnaire was also prepared to be used in subsequent stages of the study.
- The preparation for the study, which included the selection of potential experts, presenting them with the scope of the studied subject and the assumed time frames. As a result of this stage, ten experts were invited to participate, of whom five represented the scientific community, while the remaining five were economic practitioners closely related to the issue of Industry 4.0.
- The distribution of the first questionnaire with an indication of the principles of the survey and the date of its return. The main task at this stage was to determine the widest possible list of factors influencing the adaptation of the public procurement system to the concept of Industry 4.0. In this way, a list consisting of 67 items was obtained, and it was ordered alphabetically.
- Analysis of the solutions obtained using IT and statistical tools (Piech 2003) and the preparation of another questionnaire for further research using the Delphi method.
- The beginning of the next stage of the study, in which participants were sent the results of the previous round together with an anonymous list of comments and justifications along with a prepared questionnaire and explanation of the rules of conduct for this part of the study.
- The modification of solution proposals by experts. At this stage, the experts could share the dominant point of view or justify another one. After repeating the three previous stages once again, it was possible to identify 13 highest rated factors by experts and to share their positions.
- The final result, according to experts' opinions, included the following factors influencing the adaptation of the public procurement system to the concept of Industry 4.0: friendly law, mentality of ordering parties, contractors' mentality, access to tenders for SME sector companies, innovativeness of the economy, competences and qualifications of the public procurement staff, possibility of wider establishment of consortia, elimination of gray economy, electronicization and digitization of public procurement, effective acquisition of European Union funds, appropriate level of financing public units, the number of training sessions conducted by awarding entities, and introduction of a public-private partnership on a larger scale.
- During the last stage, the results were sent to experts participating in the study.

The author of the study is aware of the flaws resulting from the use of the Delphi method at this stage of diagnosing the factors. The results mainly depend on the selection of experts and their knowledge. It is also noteworthy that a small number of people participated in the survey. This is mainly due to a small number of experts who know the specific public procurement market and understand the need for its development and modernization toward Industry 4.0. It is worth emphasizing, however, that a small number of experts significantly accelerated the time of the study and also minimized its costs.

Regarding the advantages of the study, it is important to emphasize the high independence of expert opinions by ensuring their anonymity. The method used also allowed to utilize the synergy effect, extremely important from the point of view of a small amount of data and information on the studied problem. Consensus was also reached in situations where empirical data was lacking or there was a large area of uncertainty about expert opinions. The use of the Delphi method at this stage of research allowed using results to isolate key and controllable factors enabling adaptation of the public procurement system in Poland to the concept of Industry 4.0. For this purpose, network thinking methodology was used.

3 Identification of Key Factors Using the Network Thinking Methodology

The methodology of network thinking is based on systems theory. Its essence is to approach a problem from different points of view (Zimniewicz 2014). Hence, 15 experts, including academics and business practitioners with a very good understanding of the concept of Industry 4.0 and who knew the provisions arising from the application of the Public Procurement Law, were involved in identifying the key factors outlined in the previous stage of the research. To objectify the research results, it was ensured that they were people who had not participated in the Delphi method before. The deliberate selection of the sample ensured competent statements from the participants of the survey. In this article, government and self-government authorities having a direct impact on the functioning of public procurement entities in Poland were recognized as decision-makers related to the implementation of the key factors identified by experts. Similar views regarding the key role of government in supporting Industry 4.0 were expressed in their research by Nathan et al. (2019). Hence, in the final part of this article, an attempt was made to formulate recommendations for the socioeconomic policy of the state. From the point of view of the issues discussed in this article, the analysis omits the time factor related to the interaction of factors within the network.

The methodology of network thinking consists of six interrelated phases that are not sequential, which makes it possible to return to the previously realized phase or go through it several times. These phases include the following: setting goals and modeling the problem situation, analyzing impacts, recognizing and interpreting the possibility of changing the situation, explaining management options, planning strategies and actions, and implementing problem solutions (Ulrich and Probst 1990).

After the implementation of the first phase, i.e., determining the purpose of the study and determining the problem situation, a network of connections between factors affecting the defined problem should be created, and their interactions should be analyzed. The choice of the factor in the center of the network that should be built around this factor is also very important. Due to the subject of this article, it was

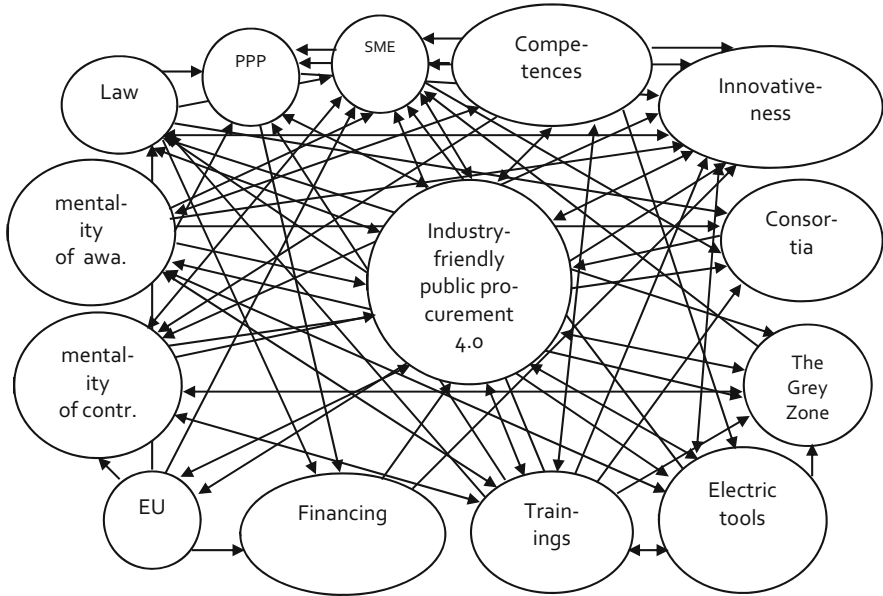


Fig. 1 Network of dependencies between factors in the network. Source: own study

decided that this factor will be an Industry 4.0-friendly public procurement system. The remaining factors were identified at the previous stage of the study and were used to build a network of mutual interactions (Fig. 1). In order not to obscure interrelationships, it was assumed that the network will contain synonyms of previously specified factors (Table 1).

The analysis of interactions between the factors listed in Fig. 1 should include their type and intensity. As for the type, the directions of the arrows correspond to it indicating one-way and two-way interactions. The intensity is presented in Table 2, i.e., the matrix of influence. It assumes that 0 intensity corresponds to no effect, while 3 to a very strong effect. Both the type and intensity of impact analysis were carried out among 15 experts participating in the construction of the network. The influence matrix is often called a spreadsheet. After adding up the activity and passivity of the factors, it should be determined which of the factors presented in the network belongs to the following ones:

- Active factors, i.e., those that strongly influence other factors, but are practically not influenced themselves.
- Critical factors, i.e., those that strongly influence other factors, but are also subject to similar influences themselves.
- Passive factors, i.e., those that weakly influence other factors, but are themselves subject to strong influence.
- Lazy factors, i.e., those that both weakly affect other factors and are themselves subject to weak influence.

Table 1 Synonyms used in the network of interrelationships

Factor resulting from the Delphi study	Synonym used within the network
Friendly law	<i>Law</i>
Mentality of awarding entities	<i>Mentality of awa.</i>
Mentality of contractors	<i>Mentality of contr.</i>
Access to tenders of the SME sector	<i>SME</i>
Economy innovativeness	<i>Innovativeness</i>
Competencies and qualifications of the staff awarding public contracts	<i>Competencies</i>
Possibility of establishing consortia more widely	<i>Consortia</i>
Elimination of the gray zone	<i>Gray zone</i>
Effective acquisition of European Union funds	<i>EU</i>
Adequate level of financing of public entities	<i>Financing</i>
The number of training sessions carried out by awarding entities	<i>Trainings</i>
The introduction of public-private partnerships on a larger scale	<i>PPP</i>
Electronicization and digitization of public procurement	<i>Electronic tools</i>

Source: own study

The characteristics prove that when seeking the possibility of influencing the system, it is best to use active factors.

The influence matrix presented in Table 2 is the starting point for the development of the intensity map, which clearly allows to assign the factors listed in it to one of the four described groups. Simultaneously, it allows to identify factors, which can play a key role from the point of view of adapting the public procurement system in Poland to the concept of Industry 4.0. When creating an intensity map, it is crucial to draw a boundary between the factors. In this analysis, it was assumed that the dividing lines will run in places that result from dividing the maximum value of A and P by 2. Thus obtained values are $A = 13.5$ and $P = 14$. The intensity map is presented in Fig. 2.

The intensity map shows the following key factors in adapting the public procurement system in Poland to the concept of Industry 4.0: the mentality of awarding entities (3), competencies and qualifications of the staff awarding public procurement (7), the number of training sessions conducted by awarding entities (12), as well as the digitization and electronicization of public tenders (14). These are the active factors, which mean that they exert a strong influence on solving problem situations and at the same time are not subject to strong influence. It is worth determining, at this stage, which of them remains under the control of decision-makers and which remains beyond their reach. Controllable factors are the competences and qualifications of the staff awarding public procurement, the number of training sessions carried out by awarding entities, as well as the electronicization and digitization of public procurement. It is worth noting, however, that indirectly, by training and raising competencies and qualifications, decision-makers can also attempt to change the mentality of Polish awarding entities, which very often results from a lack of knowledge and consequences of their actions. These factors should be

Table 2 The influence matrix

No.	Name of the factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Sum of A
1	Friendly public proc. 4.0	x	1	0	0	2	3	3	0	1	2	0	2	1	3	18
2	Law	1	x	0	0	1	2	0	1	3	0	1	0	1	2	12
3	Mentality of awa.	3	0	x	0	2	3	2	2	2	0	0	2	3	2	21
4	Mentality of contr.	1	0	0	x	2	2	0	2	3	0	0	1	0	0	11
5	SME	2	0	0	1	x	3	0	2	0	0	0	0	1	0	9
6	Innovativeness	3	1	0	1	1	x	0	0	0	1	0	0	0	1	8
7	Competencies	3	0	3	3	3	3	x	0	0	0	0	3	2	2	22
8	Consortia	1	0	0	0	0	0	0	x	0	0	0	0	0	0	1
9	The Grey Zone	1	2	1	2	2	0	0	0	x	0	0	0	0	0	8
10	EU	2	2	0	1	1	1	0	0	0	x	2	0	0	0	9
11	Financing	3	0	0	0	0	2	0	0	0	0	x	0	0	0	5
12	Trainings	3	3	3	1	3	3	3	1	2	0	0	x	3	2	27
13	PPP	2	0	0	0	0	2	0	0	0	0	3	0	x	0	7
14	Electronic tools	3	2	2	0	2	3	0	0	3	0	0	2	0	x	17
	The sum of P	28	11	9	9	19	27	8	8	14	3	6	10	11	12	

Source: own study

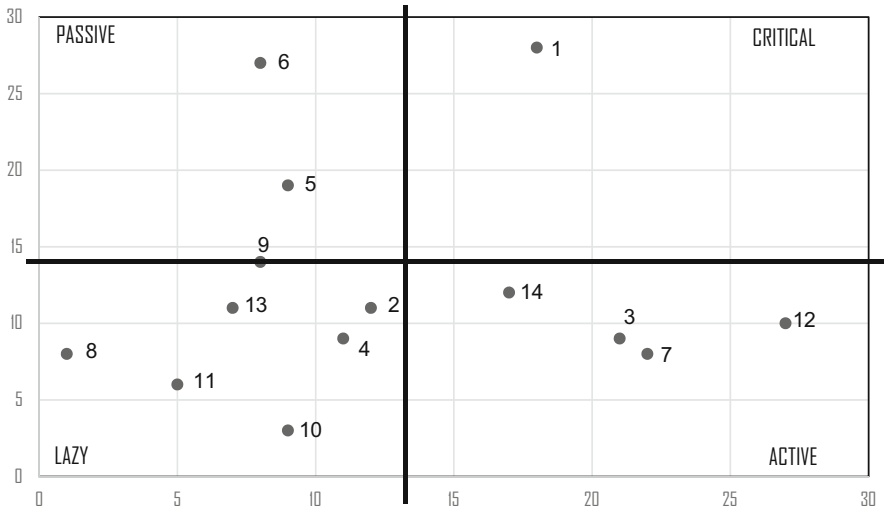


Fig. 2 Intensity map. Source: own study

considered crucial from the point of view of adapting the public procurement system in Poland to the concept of Industry 4.0.

The third phase of the network thinking methodology assumes the need to interpret the possibility of changing the situation in relation to key factors obtained in previous stages. To achieve this, it is worth using the scenario analysis based on the assumption that future events cannot be predicted with 100% certainty; therefore various scenarios for the development of the current situation should be anticipated and developed (Gierszewska and Romanowska 2004). Optimistic, pessimistic, and probable scenarios are presented in Table 3. They help to better understand the essence of factors related to the adaptation of the Polish public procurement system to the concept of Industry 4.0.

A possibility to manage change should be explained in the next phase of network thinking methodology. To this end, it is worth using a model described by Klimarczyk et al. (2009), which takes into account factors both controllable and non-controllable by decision-makers, feedback, and feedforward as well as indicators (or early warning indicators). The reference point in the aforementioned model remains the public procurement system and its adaptation to the concept of Industry 4.0. The model of change management in this area is presented in Fig. 3. Indicators play a special role in the management model, as they help decision-makers take up the right strategy in an event of unwanted changes. In the case of the presented model, their decrease should result in taking remedial actions aimed at improving the functioning of the entire system.

From the point of view of this improvement, proposed actions should be developed in accordance with the network thinking methodology. The first two controllable factors are very closely related. Public entities awarding public contracts must, in the short term, ensure the training of their staff.

Table 3 Scenarios for the development of key factors in the adaptation of the Polish public procurement system to the concept of Industry 4.0

Factors	Scenario		
	Optimistic	Pessimistic	Likely
Competencies and qualifications of the staff awarding public contracts	Decision-makers will ensure continuous improvement of competencies and qualifications of employees of public procurement units	Improvement of employees' competencies and qualifications will be treated as an additional and unnecessary cost at all times	Selected competencies and qualifications will be seasonally improved and will allow for a selective adjustment of the public procurement system to Industry 4.0
The number of training sessions carried out by awarding entities	Awarding entities will increase the number of trainings related to adapting the public procurement system to the concept of Industry 4.0	Awarding entities will continue to save on trainings and claim that daily professional practice constitutes the best training	Occasional training on the adaptation of the public procurement system in Poland to the concept of Industry 4.0 will be carried out
Electronicization and digitization of public procurement	Full electronicization and digitization of the public procurement system will take place	Awarding entities will continue to avoid using electronic tools when awarding public contracts	Awarding authorities will occasionally use electronic tools when awarding public contracts

Source: own study

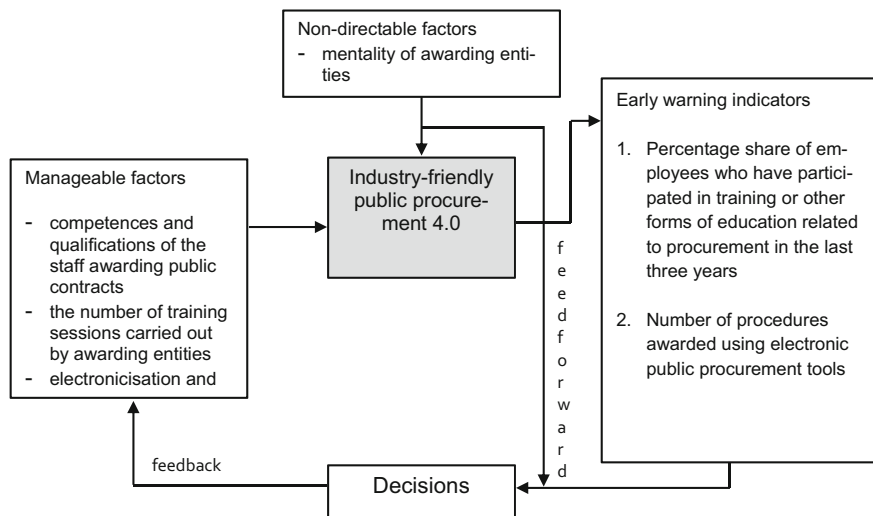


Fig. 3 Management model to adapt the public procurement system to the concept of Industry 4.0. Source: own study

Results of own studies indicate a shortage of hard competences among Polish officials, especially in the field of data analysis, as well as the design and integration of IT systems. Firm foundations in the form of technical knowledge are crucial to the development of modern technologies, while they are associated with a change in the approach to people, problem-solving, or project management, which translate into the need to develop soft skills in the organization. If a public entity strives to become an innovative organization, also in terms of human resources management, a stable environment should be created for its employees, which would not only provide them with an opportunity to develop in accordance with their individual needs and objectives of the organization but also motivate them to constantly improve, share knowledge, and experience with other members of the organization, especially in the face of forthcoming automation and digitization, which in themselves pose new challenges and both technical and interpersonal requirements.

In the case of persons awarding public contracts, it is worth noting that the combination of both soft and hard competences is very important both from the point of view of improving the functioning of the entity itself but also creating such documentation that would provide better and more modern solutions.¹ Currently, apart from the problem related to the lack of appropriate competences of Polish officials, there exists a phenomenon of low degree of electronicization and digitization of the entire public procurement system. Despite the fact that the solutions of the Act, which will enter into force on January 1, 2021, impose a wider use of electronic tools during the preparation and conduct of tender procedures, there are practically no good practices in this regard. Evidence for this lies in negligible interest of awarding entities in the electronic bidding mode, which is the only one that can ensure transparent public procurement (Borowiec 2014, p. 15).

Using electronic tools in the public procurement system can also change the image of public administration, which may be perceived as more innovative and geared to changes in the latest development trends. Modern and efficient public administration remains of great importance in shaping competitiveness of Poland in the European and global markets. It, therefore, constitutes an essential condition for the development of the entire national economy. Creating demand for innovation using electronic tools, however, requires necessary actions on sharing more platforms supporting electronic tendering, the dissemination of electronic signatures, as well as changes to customer awareness. Public institutions require creative people who are not afraid of changing and breaking certain patterns and are able to inspire other employees.

¹Should be on this subject in great detail, please see Borowiec (2013).

4 Conclusion

As demonstrated by the results of the network analysis, the key factors in adapting the Polish public procurement system to the concept of Industry 4.0 include the following: mentality of awarding entities, competencies and qualifications of the staff awarding public procurement, the number of training sessions conducted by awarding entities, as well as the electronicization and digitization of public procurement.

For several years, in the European Union member states, and thus also in Poland, people and institutions responsible for the public procurement system have been trying to use tools that would allow awarding entities to create demand for more modern and simultaneously cheaper solutions financed from public budget. The aim of Industry 4.0 is to facilitate human labor by replacing tedious, repetitive, not only physical, activities with machine and digital solutions, while transferring human resources toward the area of IT, data analysis, designing new digital solutions, research and development activities, or overseeing machine groups. However, this type of work requires specific, mostly technical competencies, which remain beyond the reach of most people currently employed at Polish public procurement entities. In an event when current employees of the organization are not able to meet the new roles, it may be necessary to terminate their contracts—and to dismiss them from their workplaces. The lack of an efficient downsizing process can not only lead to a deterioration of morale among other staff members fearing further reduction of the organization's human resources but also raise negative opinions about the institution, both among current and potential employees.

Digital progress taking place nowadays and the growing number of network connections in the economy also pose additional challenges for the entire public procurement system, because Industry 4.0 significantly changes most of the products that are the subject of services, supplies, or construction works ordered by the state. Certainly, the implementation of this concept carries further consequences for the management and organization of work by creating new business models. Undoubtedly, however, the concept of Industry 4.0 is an excellent opportunity to develop and improve competitiveness of not only the public procurement system in Poland but also the entire national economy. At this point, however, it is difficult to consider market related to public tenders as fully prepared to accept the assumptions of this concept. The adaptation process will probably last many years and will require actions from both public institutions as well as central and local government authorities.

According to the results of the study, these activities should consist primarily of the following:

- Employing people with high competencies (soft and hard ones) and comprehensive, especially technical education in public procurement institutions.
- Permanent staff training, enabling the formulation of innovative solutions adapted to the concept of Industry 4.0 described in tender documentation.
- Using electronic tools on a wide scale in public procurement procedures.

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Part VII
Regional Studies

SME Development in the Visegrad Area



Mária Srebalová and František Vojtech

Abstract The aim of this paper is to analyze the development of small- and medium-sized enterprises (SMEs) and identify correlation between selected indicators and value added of SMEs in Visegrad Group (V4). The analysis of the development of small- and medium-sized enterprises of the V4 is dedicated through three indicators, namely, the number of enterprises, the number of employees, and their value added. The object of our research is the V4 which is a grouping of four states located in the center of Europe and SME environmental possibilities and functional properties for development and innovation potential. From our perspective of view, the model of correlation is one of the main meaningful analyses of SME development in the region, for this our main methodology is the usage of mathematical model of correlation for data set of information obtained from European Commission statistics reports for V4 countries. Based on our research, value added of SMEs in V4 increased in all business categories since 2010. The largest increase is seen in small businesses, which improved by almost 24%. Together, medium-sized enterprises created a 19% higher value added. Micro-businesses have improved by 7% over 8 years.

Keywords Visegrad Group (V4) · Small- and medium-sized enterprise · Value added · Correlation

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1 Introduction

Micro-, small-, and medium-sized enterprises are the driving force of the European economy. They contribute to job creation and economic growth and ensure social stability. For example, in 2013, more than 21 million SMEs across the EU provided 88.8 million jobs. Nine out of every ten businesses are SMEs, and SMEs create two out of every three jobs (EC 2015). SMEs also stimulate entrepreneurship and innovation across the EU and are therefore crucial to boosting competitiveness and employment. Given their importance to the European economy, SMEs are at the heart of EU policy. The European Commission aims to promote entrepreneurship and improve the business environment for SMEs, so that they can develop their full potential in the current global economy.

Our main goal is to find out the development of the number of small- and medium-sized enterprises in recent years, the level of employment in them, and their added value individually in the Visegrad Four countries but also as a whole. V4 is a dynamic regional group of EU Member States, representing a platform for strengthening the coordination and consultation mechanism with a view to reaching common opinions on topical issues (Majerčáková 2016). Due to the fact that many innovative strategies of existing SMEs are mistaken for unclear start-up strategies, we decided to focus on existing SMEs in the V4 region. This informal region has closely linked economies and several economic indicators are interdependent. In all four countries, as well as in other EU countries, transport was the most financially supported, with up to 31% of the total ERDF and CF allocated to all Member States in the 2007–2013 programming period. For this reason, we decided to use correlation in between macroeconomic indicators and the added value of them. We examined the V4, by added the values of macroeconomic indicators, and created their cumulative growth from 2010 to 2017 together for the V4. By calculating the total value added of all categories of SMEs per enterprise, we found that medium-sized enterprises create the highest value added. Conversely, the lowest value added is per micro-enterprise in all countries. The same ranking was also obtained by dividing the value added among the employees of the companies, where we realized that the highest value added was created by the employee of the medium-sized enterprise.

2 Theoretical Background

SMEs constitute the backbone of the European economy, providing a significant source of jobs and economic growth. However, their small size can also significantly limit their innovation and development potential, as extensively discussed in the First Intermediate Report of this study. In general terms, the factors explaining the difficulty SMEs face in their efforts to innovate and grow were explored extensively by past studies (e.g., European Parliament 2011; CSES 2012; European Commission 2008; OECD 1998). Innovation management field for small- and medium-sized

enterprises by analyzing of internal and external sources (Molodchik et al. 2020) is mostly used for analyzing the potential of region. On the other hand, the age of the business owner and the size of enterprise do not play any significant role in intention which is affected positively by innovation, informality, risk attitude, and debt (Aghaei and Sokhanvar 2019). Disseminating the economic activity of companies (Bolkunow 2019) on the international and domestic markets is bridging the gap between science and practice for development and innovation during the past several decades. Many new and highly efficient innovations have been developed in important fields like in green economy, health, education, IT, and so on. Differences in structural factors and macroeconomic performance explain not only cross-country and cross-regional differences in both the value-added performance and the employment creation of SMEs since 2008 but also significant differences in the extent of the recovery (CSIL 2016). SMEs are mostly dependent on their import and export activity and the internationalization which represents spreading of business activity beyond the local market (Mikić et al. 2019). The importance of small- and medium-sized enterprises in economic development is apparent to governments in almost every country. Practically every country has a policy framework for SME development (Pletnev and Nikolaeva 2019). The Commission has made real efforts to cut red tape for SMEs and has significantly increased the SME focus in major EU support programmes for 2007–2013 (European Communities 2008).

The current number of SMEs in the EU increased by 13.8% between 2008 and 2017 and the employment rate by 2.5%. According to statistics of EC from 2017 (EC 2018), there were 24.5 million SMEs in the nonfinancial sector within the EU Member States, therefore up to 99.8%. On average, there were 57 small- and medium-sized enterprises per 1000 people aged 15 and over, with all Visegrad countries except Poland above the European standard. The statistics also show that these companies have a leading position in the employment of people. The employment rate in the European Union countries reached 66.4% in 2017 (EC 2018).

Cooperation with the cohesion of the EU Member States is essential in achieving its objectives (Majerčáková 2015). Financial support in various areas and innovations is essential for states to move forward. One of Horizon 2020's priorities is smart, sustainable, and inclusive growth, while also ensuring the promotion of entrepreneurship and the development of the potential of SMEs. For fulfillment of this aim, a COSME (Europe's program for small- and medium-sized enterprises—Competitiveness of Enterprises and Small- and Medium-Sized Enterprises) strategy has been developed to increase the competitiveness of small- and medium-sized enterprises through research and innovation.

The COSME program was expected to help finance between 220,000 and 330,000 SMEs, totaling between EUR 14 and 21 billion, through the Loan Guarantee Facility (Filus 2017). The second instrument is the equity instrument for growth, which was intended to provide aid in raising capital investments to 360–560 enterprises totaling EUR 2.6 to 4 billion. The largest amount of the total budget of the COSME program, up to 60%, has been earmarked to achieve this. The COSME program finances several funds to enable European businesses to create a single market and make the most of the opportunities offered in markets outside the

European Union. Such tools are, for example, web-based tools and portals created for business development and the Enterprise Europe Network, a network of affiliates to help find technology and business partners. 21.5% of the total COSME budget was earmarked to improve market access. The COSME program also aims to create businesses with high competitiveness and market potential (European Commission 2009). It helps businesses adopt new business models and join new value chains. 2.5% of the COSME budget contributes to actions to improve the competitiveness of businesses.

The COSME program implements the European Union's Initiative Small Business Act (SBA). The SBA supports small- and medium-sized enterprises and provides measures for SMEs to ensure their sustainable growth and competitiveness in the world market. "Think Small First" aims to strengthen the position and competitiveness of small- and medium-sized enterprises over large enterprises.

Small- and medium-sized enterprises within the Visegrad Group are part of the fifth largest economy in Europe and the 12th largest in the world (Peráček et al. 2016). The position of these four states in the heart of Europe gives the Visegrad Group both the possibility and the responsibility to be a key player in the European Union (Hahn 2013). The highest share of the European Regional Development and Cohesion funds was awarded to Poland in the 2007–2013 programming period, up to 21.2% of the total for all 27 EU Member States. This share amounts to almost EUR 57.2 billion. The planned ERDF and CF amount for Poland was increased by more than € 1.6 billion during the program period, mainly to help reduce national public funding for projects (Applica 2016d).

3 Methodology

The object of our research is the Visegrad Group which is a grouping of four states located in the center of Europe. This community, which was established in 1991, consists of the Slovak Republic, the Czech Republic, Hungary, and Poland. In 2004, they joined the European Union together. The Slovak Republic is the only one of these four countries to be part of the Eurozone, so its official currency is the euro. The other three countries use their own currency.

The macroeconomic indicators we worked with were gross domestic product (GDP), exports of goods and services, gross fixed capital formation, and final consumption expenditure from 2010 to 2017. However, as we examined the V4 as a whole, we added the values of macroeconomic indicators and created their cumulative growth from 2010 to 2017 together for the V4 as a whole. We examined their impact on the added value of small- and medium-sized enterprises through a linear relationship between them. We measured the linear dependence using a correlation coefficient, the value of which ranges between -1 and $+1$. The closer the value of the correlation coefficient is to $+1$, the greater the positive correlation between the variables. On the other hand, the closer to -1 , the greater the negative correlation between the variables. Correlation coefficients, coefficients of

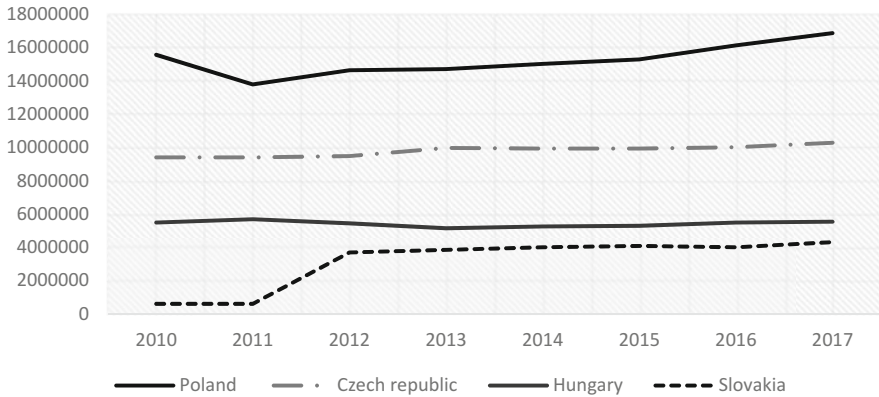


Fig. 1 Development of the number of SMEs in V4. Source: author's own study

determination, and statistical significance of macroeconomic indicators were determined using the R program. We were able to compare which of the four selected macroeconomic indicators has the highest linear dependence with the added value of small and medium enterprises of the Visegrad Group.

The number of small- and medium-sized enterprises in Slovakia was almost 840 times higher than the number of large enterprises in 2017, which represents 434,102 micro-, small-, and medium-sized enterprises together. Compared to the average of all EU Member States, Slovakia has 0.1% more SMEs out of the total number of enterprises, therefore 99.9%. The number of SMEs increased by 368,253 here, which is 6.6 times the number of SMEs in 2010 (Fig. 1). The number of large enterprises in the Czech Republic in 2017 was 1619, which represents 0.2% of the total number of enterprises in the country. Micro-, small-, and medium-sized enterprises were 636 times more, at 1,030,143. The percentage of enterprises in both categories is equal to the European average. Since 2010, the number of small- and medium-sized enterprises in the Czech Republic has increased by approximately 1.12 times, therefore by 109,724.

The number of all enterprises in Hungary in 2017 was 559,336, of which 936 belong to the category of large enterprises and 558,400 to the category of small- and medium-sized enterprises. Their percentage of large enterprises and SMEs is again equal to the average of the Member States of the European Union. In Hungary, we see the smallest increase in the number of small- and medium-sized enterprises since 2010, only 1.02 times, which represents an increase in the number of SMEs by 11,506. In 2017 Poland had 3296 large enterprises, representing 0.2% of the total number of enterprises and 1,692,695 micro-, small-, and medium-sized enterprises together. Since 2010, the number of small- and medium-sized enterprises in Poland has increased by 1.08 times, therefore by 139,730.

Between 2010 and 2017, the number of small- and medium-sized enterprises in all countries of the Visegrad Group has mostly increased, reaching its peak in 2017

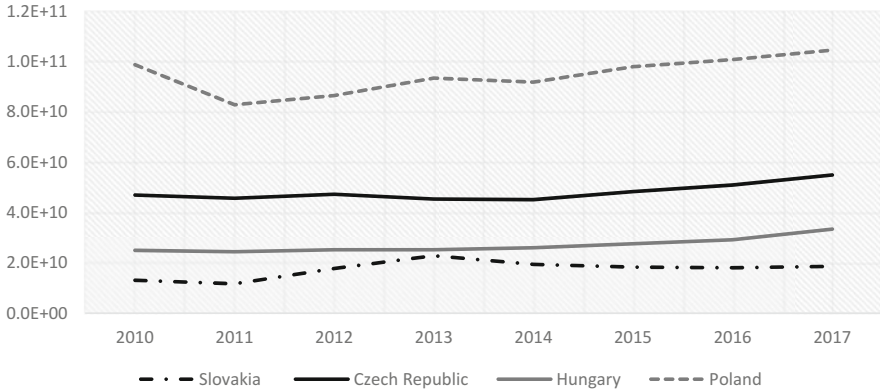


Fig. 2 The evolution of value added in V4 countries. Source: author's own study

(Fig. 2). Countries have maintained their initial position in 2010 in this ranking. In 2012, the number of small- and medium-sized enterprises increased by more than 300,000. The total increase in the number of these enterprises in Slovakia is the highest, since 2010 it has increased 6.6 times. However, the Slovak Republic still ranks in the last place among the countries of the V4. Poland, as we can see in the chart, maintains a leading position; in 2017 it could boast of almost four times as many small- and medium-sized enterprises as Slovakia.

The smallest increase in the number of small- and medium-sized enterprises in the reporting period was achieved by Hungary, since 2010 their number increased only 1.02 times. The Czech Republic took the second place of the highest number of small- and medium-sized enterprises within the Visegrad Group, where their number increased by 1.12 times since 2010.

The Czech Republic received the second highest share of the ERDF and CF from the Visegrad countries and the third highest among the EU Member States, namely, 8.2% of the total. The amount awarded to her is over EUR 22 billion. In the Czech Republic, the opposite situation occurred in Poland, where the planned amount of funds was reduced to a lower amount, by approximately 380 million euros due to an increase in the national private financing of the country (Applica 2016b). Immediately for the Czech Republic, we include Hungary, which received approximately 7.9% of the total ERDF and CF in the 2007–2013 programming period. This represents EUR 21 billion. Again, we see a reduction in the planned budget, but this time only slightly, about 11 million euros (Applica 2016c).

The Slovak Republic was granted a share of 3.7% of the total amount of funds for countries in the programming period 2007–2013, therefore almost 10 billion euros. Thus, Slovakia is ranked last in the ERDF and CF level of the V4 countries during this period but is still in the first half of the European Union countries. The planned amount of money for Slovakia was increased by EUR 138 million during 2007–2013 (Applica 2016a).

In all four countries, as well as in other EU countries, transport was the most financially supported, with up to 31% of the total ERDF and CF allocated to all Member States in the 2007–2013 programming period. On the other hand, the smallest share of the funds gained energy and improved its savings in public and residential buildings (Ward 2016).

4 Results

4.1 Evolution of SME Value Added in V4

The value added of small- and medium-sized enterprises in Poland amounted to EUR 105 billion in 2017, increasing by 1.06 times since 2010. In 2017, small- and medium-sized enterprises in the Czech Republic generated a value added of almost € 55.7 billion. The value has increased 1.18 times since 2010. Hungary, which ranks third, in 2017 boasted a value added of € 33.5 billion for SMEs. Overall, value added has increased 1.34 times since 2010.

Similarly, to the development of the number of enterprises and the number of employees, the greatest increase in the value added is observed in Slovakia. In 2017, the value added of small- and medium-sized enterprises in the country amounted to 19.1 billion, since 2010 it has increased 1.5 times.

As the number of enterprises in the country increases, so does the number of workers there and their total value added (Majerčáková and Mittelman 2017). However, the sequence of states in the share of the value added of small- and medium-sized enterprises to the share of the value added of large enterprises is different. The percentage of value added of small- and medium-sized enterprises in the European Union has long been higher than that observed in the Visegrad countries.

The highest share of value added of small- and medium-sized enterprises in 2017 is observed in our Western neighbors, in the Czech Republic. Its share fluctuated very little between 2010 and 2017 but remained at approximately the same level, but at the end of the reporting period, we see a lower share of value added than in 2010. At that time, small- and medium-sized enterprises in the Czech Republic generated a value added of EUR 47 billion which represented 55.7% of the total value added of enterprises. In 2017 their value added increased to EUR 55.7 billion, but the percentage fell to 54.6%.

Hungary retained second place among the Visegrad countries of 2010, but the share of value added created by small- and medium-sized enterprises in the country also decreased. In 2010, it amounted to 54.6% of the total value added of all enterprises in the country, equivalent to € 25 billion. In 2017, small- and medium-sized enterprises in Hungary generated a value added of € 33.5 billion, but the percentage was lower, at 53.6%.

The value added of small- and medium-sized enterprises in the Slovak Republic, as can be seen in Fig. 2, has undergone more significant changes over the years than

in other countries. In 2013, it reached its maximum of 64.6% of all companies in the country. However, since then, this share has been declining, reaching a value like 2010 in 2017. At that time, SMEs generated a value added of EUR 13 billion, representing a 52.0% market share. In Slovakia, as in the only country among the Visegrad Group countries, in 2017 was recorded a higher share of value added of small- and medium-sized enterprises than in 2010, namely, 52.5%, converted to EUR for 19.1 billion.

In Poland, the percentage of value added of small- and medium-sized enterprises in 2017 was the lowest of the Visegrad countries, 51.4%, or 105 billion euros. The share of value added in Poland decreased the most by up to 2.6% from 54.0% in 2010. During that period, SMEs generated a value added of € 99 billion.

If we divide the amount of value added of each country's SME by the number of SMEs that countries have, we get the average value added per enterprise. Therefore, the higher the value added of enterprises and the smaller the number of enterprises in terms of their value added, the higher the average value added per enterprise. Although in Poland we observed the smallest share of value added of small- and medium-sized enterprises in the Visegrad Group in 2017, the average amount generated by one enterprise is the highest among the four countries. One micro-, small-, or medium-sized enterprise in Poland thus contributed a value added of EUR 62,031. On average, the smallest amount of value added in 2017 was generated by one micro-, small-, or medium-sized enterprise in Slovakia, namely, EUR 44,000.

Here we can observe different order of states than the previous parameter. The highest value added was on average one employee in the Czech Republic, amounting to EUR 22,775. On the other hand, Poland ranked last in the Visegrad Group, with an average value added of EUR 16,913 per employee of a micro-, small-, or medium-sized enterprise.

Within the three categories of companies, we see a similar trend as the value added of one company. On average, one employee of a micro-enterprise brings the lowest value added, while an employee in a medium-sized enterprise delivers the highest.

4.2 Correlation Between Indicators of SME Development in the Visegrad Group

To assess the development of enterprises, we have identified three factors—the number of enterprises, employment in them, and their value added. We assumed that there was a strong correlation between them, as these factors greatly influence each other. For example, the number of employees depends on the number of enterprises in the country, the value added of the number of enterprises, and the workers in them. The data we used to analyze the link between these factors date from 2010 to 2017, looking at the Visegrad Group as a whole.

Table 1 Linear dependence between indicators of SME development in V4 countries

	Correlation coefficient	Determination coefficient	<i>p</i>
Number of enterprises vs. employment	0.93	0.87	0.0007
Number of enterprises vs. value added	0.89	0.79	0.0033
Employment vs. Employment value added	0.90	0.80	0.0025

Source: author's own study

Linear dependence between two or more variables can be measured by correlation. The correlation coefficient ranges from -1 to $+1$. The higher the value of the correlation coefficient, the more positive the correlation exists between the variables, so the value $+1$ represents the highest positive linear correlation. Conversely, a value of -1 indicates the highest negative linear correlation between variables, at which time the variables behave in reverse. If one value rises, the other drops and vice versa. If the value of the correlation coefficient is 0, this means that there is no linear relationship between the variables, but there may be another nonlinear one.

From Table 1 we can see a great dependence between all three pairs of variables. The highest value of Pearson's correlation coefficient, $r = 0.93$, is the pair of enterprises and employment. This means that there is a high positive linear dependence between them; therefore if the number of enterprises in the Visegrad Group increases, the number of employees in SMEs will also increase, which is also logical. According to the coefficient of determination, the chosen model of linear dependence is suitable because the coefficient of determination is high, up to 0.87. This means that up to 87% of the variability of one variable can be explained by a linear relationship with the other variable, therefore only 13% remain unexplained. Also as can be seen in Table 1, *p* values are less than 0.05 in all three cases. All correlation coefficients are therefore statistically significant at the significance level $\alpha = 5\%$.

There is also a high positive linear relationship between the employment and value added variables, with a correlation coefficient of 0.90. The change in the number of employees explains the change in the value added of SMEs to 80%, so linear dependence is also considered to be an appropriate choice. The smallest linear dependence of the observed variables has the number of enterprises and value added. Pearson correlation coefficient is equal to 0.89. However, it is still a high positive linear dependency where a change in one variable explains the change in the other variable to 79%.

The 8-year data that we used to analyze the dependence of the SME development indicators show that the value added of V4 companies is more influenced by the number of workers in SMEs than by the number of enterprises, albeit very little. The biggest change is in the number of small- and medium-sized enterprises, which has increased by more than 20% in all four countries since 2010. Thus, the original number of enterprises 3,086,127 in all SME categories in 2010 increased to 3,715,340 in all four countries together. Overall, all three categories of small- and medium-sized enterprises in the V4 countries outnumbered the number of large

enterprises by their number. Taking these figures into percentages, in 2017 large enterprises accounted for only 0.17%, therefore small- and medium-sized enterprises up to 99.83%. Overall, the number of small- and medium-sized enterprises in relation to the number of large enterprises has also increased since 2010, at that time large enterprises accounted for 0.20% of the total number of enterprises in the sector we deal with in the diploma thesis.

In 2017, SMEs employed 9% more workers than in 2010, which represented 11,649,562 employees. In 2010 they employed 67.56% of workers; in 2017 the share of employment in them increased to 68.39%. Thus, large enterprises provided employment for 31.61% of the total employed in this sector. The value added of small- and medium-sized enterprises in the Visegrad Group has increased by almost 16% to 213.3 billion in 8 years. Although it decreased significantly in 2011, in the following years it significantly improved. However, it fell in relation to the value added of large enterprises. Together in 2017, SMEs generated 52.71% of the total value added, while in 2010 it was 54.12%.

The highest increase was recorded in the category of micro-enterprises, whose total number in V4 increased by 21% since 2010, which is significantly more than the other two types of enterprises. Together in four countries, the number of small businesses in 2017 was 7% more after 8 years. In the case of medium-sized enterprises, we only see a decrease in the number, albeit small, of only 0.5%. Micro-enterprises accounted for the largest share, up to 95.82%. Such a high percentage was expected in view of previous observations of SME developments in the Visegrad countries individually, where we also found that micro-enterprises dominate with their numbers. Small enterprises accounted for 3.42% of the total, while medium enterprises accounted for the remaining 0.76%.

The number of employed in small- and medium-sized enterprises varied in different categories of enterprises. Micro-enterprises employed almost 14% more workers in 2017 than in 2010, while small enterprises improved their employees by almost 10% in 8 years. As in the previous observation, we saw a decline in medium-sized enterprises, which in 2017 provided jobs by 0.3% less people than in 2010.

The highest number of micro-enterprises also corresponded to the highest number of workers in 2017, up to 52.69% in relation to small- and medium-sized enterprises. The second place among SME categories belonged to medium-sized enterprises, which provided employment to 25.33% of persons working in small- and medium-sized enterprises in the Visegrad Group. The remaining 21.97% of employees worked in small businesses. Value added has increased in all business categories since 2010. The largest increase is seen in small businesses, which improved by almost 24%. Together, medium-sized enterprises created a 19% higher value added. Micro-businesses have improved by 7% over 8 years.

5 Conclusion

For all three indicators of the development of small- and medium-sized enterprises that we observed, we have seen a significant increase in the number of enterprises in the Visegrad Group since 2010. Nowadays, there are many demands coming from all over the world to establish or to secure the possibility of comparability of the information (Majerčáková and Škoda 2015). In terms of the number of enterprises and the employment rate compared to large enterprises, they also improved in 8 years. However, by the development of large companies in countries, the share of value added of small- and medium-sized enterprises has fallen by almost two percent but is still maintained by an absolute majority over large enterprises. These results tell us clearly how big the role of micro-, small-, and medium-sized enterprises is. They generate most of the value added of all businesses and provide employment to millions of people in the Visegrad countries.

If we focus on the ratio between micro-, small-, and medium-sized enterprises, medium-sized enterprises ranked first in generating value added in 2017, namely, 38.46%. In the second place were micro-enterprises with a percentage of 34.24%. In the third place were small enterprises, which generated 27.30% of the value added of its total amount of SMEs in the Visegrad Group. Micro-enterprises were the only ones to improve in percentage terms since 2010.

It can be noted that in all countries, in each of the selected indicators of development, small- and medium-sized enterprises dominate over large enterprises over the period under review. Their number increased every year, which of course had an impact on increasing the total number of employees in them and their value added. The percentage of employees and value added of SMEs was higher than that of large enterprises in all four countries. Of the three categories of small- and medium-sized enterprises, the number of micro-enterprises significantly exceeded their number, with the share in each country exceeding 90% of the total number of enterprises. Small businesses came second. Medium-sized enterprises had the smallest representation in all four countries, but they themselves still exceeded the number of large enterprises. Micro-enterprises also dominated their number of employees. In addition to the Czech Republic, large companies have even surpassed the share of workers. Medium-sized enterprises employed more workers than small enterprises in three of the four countries, except in Hungary, where it exceeded the number of employees in small enterprises. Overall, the share of employees in small- and medium-sized enterprises in all Visegrad countries was higher than the EU-28 average. However, if we calculate the number of employees of all SMEs per enterprise, the Visegrad countries are lagging behind the European average, which was worth 3.87 workers per 1 SME in 2017: they are the most widespread type of conversation in all Member States of the European Union, including the Visegrad countries. Micro-enterprises not only outweighed SMEs in terms of numbers and employment but also the value added they generate. The exception is the Slovak Republic, where medium-sized enterprises dominated in 2017 with value added, while micro-enterprises were second only. In 2017, the smallest share of value added

among SMEs was achieved by small enterprises in all four countries, similarly in the European Union on average. All three indicators of the development of SMEs, their number, employment, and their value added have confirmed to us the importance of the existence of SMEs in the Visegrad countries.

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Setting Directions for Global Policies in Migration Through Meta-analysis Theory Procedure



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Abstract All the global policies should take into consideration the phenomenon of the push-pull factors in order to achieve the highest level of qualitative and quantitative policies, i.e., economic acceptance and healthcare policies of the immigrants. Policies need to be based on and take into account new approaches to cosmopolitanism, hybridity, and diffusion, in order to be able to cope adequately with new globalized and heterogeneous migration flows following, studying, and presenting the main objective of the meta-analysis theory procedure of this abstract. The allocation of immigration policies by central authorities can take place at different rates in different societies, depending on the level of economic and social development, but also on the prevalence of migration flows, notably in the Mediterranean countries with the highest migration rates. It is relatively common for managerial and control policies criticizing immigration representations of individual assimilation as representative of discriminatory bans on social and racial classes and quotas on other anti-policies, while at the same time promoting and reinforcing racist theories.

Keywords Migration · Directions · Policies · Qualitative and quantitative policies · Globalization · Meta-analysis theory procedure

1 Introduction

New global demographic waves have been taking place in all directions since the late 1980s. The notion of homeland, related to the establishment of nation-states and the formation of a national identity, is established by religion, language, and culture

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(Willekens et al. 2016). It is worth mentioning that the form of centralization mentioned as characteristic of the industrial revolution is no longer appropriate for our post-modern societies and economies. Although worth mentioning that the form of centralization that was characteristic of the industrial revolution is no longer appropriate for our post-modern societies and economies. Flow acceleration is taking place in all major migration areas. The number of international migrants has risen in the last half a century. Growth inequalities between countries, differences between labor supply and demand, and military conflict are just some of the primary drivers behind the intensifying of migration flows (Bijak 2016). From the outset, the EU has seen illegal immigration as a conundrum, not only of infringement but of security, in which it must “combat” (Carling 2017). For this reason, an integrated immigration policy has been developed, in which the strategy against illegal immigration performs a primary role and is based on specific measures and strategies (Carrera 2007).

Some adhere globalization as part of a broader process of transition to a new combination of networked and decentralized social organization motivated by the information revolution (Castells 2010a). While early theories of globalization have shown strong propensity to undermine state sovereignty and the degradation of national borders, more recent approaches underscore the (re)enhancing processes that follow globalization (Andrijasevic and Walters 2010). On the other hand, the de facto transition of control over national economic policy instruments (fiscal policy, monetary policy, interest rate setting, etc.) to supranational institutions and the dominance of market forces over policy have serious implications for democracy and the legitimization of governments by democratic mandate. At the same time, national or international prevailing policies are being questioned by transnational social movements (Hardt and Negri 2000; Castells 2010b).

Today’s migration flows directly impact virtually the entire planet, and this is what Castles and Miller (2009) consider migration globalization (Castles and Miller 2009). The geographical magnitude of global migration flows is progressing into an increasingly complicated map, in which prior migration patterns described as “colonization,” “colonial migration,” or “migrant workers” are supplanted by new migrants and transnational migrants and global dispersal, as well as phenomena such as feminization of immigration. Immigration, as a social phenomenon, simplifies social inequalities and segregation in the host country, produces class distinctions, and thus makes immigrants a potential “scapegoat” of society as a whole (Triantafyllidou 2005). Although the primary trajectory of international migration remains relatively from the South to the North and from the East to the West, reversing flows are not negligible, as are movements between developed countries as migration between countries increases. The differentiation of migration therefore alludes to the multiplicity of migration types and forms and the uniqueness of migration channels and routes, partly as a result of the speciation and fragmentation of migration policies. However, migration no longer maintains clear linear trends as in the past, and therefore many countries or entire regions emerge simultaneously as delivering, receiving, and hosting countries elsewhere (Ortega and Peri 2013).

According to the cultural relativism, by emphasizing the equal value of cultures and the value of pluralism that can be established through different ethnic groups,

new concepts and practices guided by management policies and integrating concepts such as multiculturalism, integration, and culture can be developed in Europe (Lindström 2005; UNHCR 2014). At this juncture, the need for a strategy to tackle the flow of migrants can be likened to a tree-lined framework in which Greece is called upon to consolidate fiscal stability and sustainability in the integration of asylum seekers and migrants. The consolidation of the development of the economy and the creation of the necessary strategies for dealing with migration flows are presented in this literature in order to better understand the practices but also the subsequent evaluation and comparison based on other strategies and policies in countries that have experienced strong migration flows.

2 Setting Policies Through the Years Globally

The momentum generated by immigration during the presidential campaign has inspired President Donald Trump to adopt one of the most ambitious immigration policies of any CEO in recent history. Undocumented immigrants are seeking to be removed in the south of the United States by governmental bodies. The various domestic political forces have gained the most coverage in terms of immigration policy, although they may face difficulties through various constraints of financial resources, their political strategy of Congress, and the possible indifference of state and local government. During Trump's presidency, efforts to advance the immigration reform agenda were made through a variety of means, despite some negative publicity. For example, the unparalleled use of visa restrictions by the administration seems to have played a key role in the states' agreement to accept a significant number of immigrants, which the United States would decide on deportation. The importance of border security for both the government and society as a whole is becoming clear, especially in the geographical borders south of Mexico, which has led to a wide range of air, land, and sea entry tasks and recreational activities in the United States. Given the particularly large flow of immigrant interest since the end of 2018, Trump's original political campaign proposal was aimed at building a wall across the southern border with the primary goal of reducing immigration and strengthening public opinion (Pierce 2019; Mayda 2010) (Fig. 1).

The subsequent improvement in the immigration policy strategy has been accompanied by interventions in federal law enforcement agencies, such as hearing all visa applications (including all green card holders), limiting the ability of non-citizens to conduct their cases in the immigration court, restricting the approvals of certain immigrant partners and children already in the country in the context of family life protection, and monitoring the temporary visa applications. Compliance with immigration authorities was attempted to depend on grants from the Ministry of Justice, which tended to affect all states at the administrative level. All of these actions are progressing the United States toward the ultimate objective of the government of reducing illegal alien enrollment and broadening deportation of illegal immigrants. As expected, the influence on refugees, their families, and the wider community is evident, albeit to an initial degree (Pierce and Selee 2017).

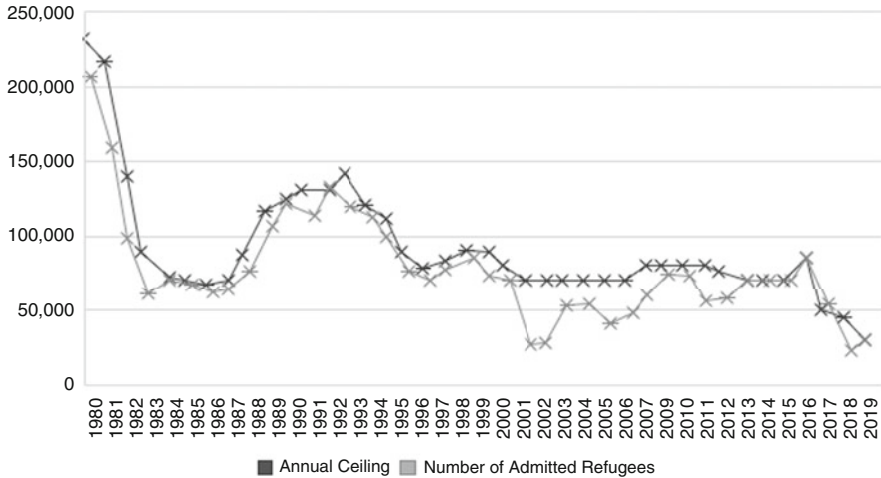


Fig. 1 US refugee admissions and refugee resettlement ceilings, fiscal years 1980–2019. Source: Migration Policy Institute (MPI) (2020)

3 Setting Policies Through the Years in EU

The Maastricht Treaty (1992) was unquestionably a pivotal point for the hereafter of the European Union, as represented in the Union’s immigration and asylum policies. Migration and policy challenges have been included in the so-called third pillar of the community, which included issues of mutual interest in the sector of justice and home affairs such as asylum, immigration, judicial cooperation in civil and criminal matters, etc. The discrepancies and omissions in the Maastricht Treaty were highlighted in several respects by the Treaty of Amsterdam in 1997, which is by far the cornerstone of the EU’s immigration policy (Boswell 2003; UNHCR 2014).

A decision was taken in 2013 to set up a “smart border” process comprising initiatives for an “entry exit” scheme, a network of registered migrants and more general Schengen reforms to strengthen border controls for third-country nationals traveling to the EU (COM/2013/95 & Regulation of EP 2013; Com/2013/97 & Regulation of EP 2013). On 13 May 2015, the Commission released the European Agenda for Action on Migration, setting out its intention to put immigration at the forefront of its priorities. The agenda recommends urgent measures to address with the Mediterranean crisis, as well as initiatives to be taken in the following years to effectively manage migration. In the medium and long term, the Commission envisages to move in four directions: reducing incentives for irregular migration, providing security for border management, developing a strong common asylum policy based on the implementation of the Common European Asylum System, and implementing a new legal immigration policy by modernizing and revising the “Blue Card” regime. The aim is to set new priorities for integration policies and to optimize the benefits of immigration policy for individuals and countries of origin.

The EU-Turkey Agreement, signed on 18 March 2016, is the latest and arguably the most important dimension of European immigration policy since it promotes rapid enforcement and noticeable outcomes. The goal of the agreement is to restrict irregular migration from Turkey to Greece and to disrupt trafficking networks by providing an alternative to refugees and migrants. In order to accomplish this objective, the following intervention points have been consented:

- All new illegal migrants entering in the Greek islands via Turkey from 20 March 2016 will be relocated to Turkey in compliance with the law with EU and international law, excluding certain types of group deportations. All immigrants will be protected in conjunction with the relevant international standards and the principle of non-refoulement. This is really a temporary and unprecedented intervention needed to restore social stability. Migrants residing in the Greek islands will be properly documented and any asylum applications will be handled independently by the Greek authorities under the Asylum Procedures Directive, in coordination with the United Nations High Commissioner for Refugees (UNHCR). Migrants who do not pertain for or seek asylum shall be relocated to Turkey if they are found to be unfounded or inadmissible under the said Directive. Turkey and Greece, with the support and guidance of EU institutions and authorities, will take the appropriate measures and deduce bilateral arrangements, including the presence of Turkish officials in the Greek islands and Greek officials in Turkey as of 20 March 2016, to ensure interaction and thus facilitate the seamless implementation of these arrangements, while the EU will cover the costs of the re-establishment of rights.
- The EU, in collaboration with Turkey, would further accelerate the disbursement of the € 3 billion initially approved under the Refugee Facility in Turkey and will ensure the financing of additional initiatives for persons under temporary protection, and a gradual Turkish contribution has been identified by the end of March. The first schedule of specific refugee programs, mainly in the spheres of health, education, infrastructure nutrition, and other living costs, which can be rapidly funded by the facility, will be compiled within a week (UNHCR 2014; European Council & Council of the European Union 2016).

It is estimated that there are presently 200 million immigrants worldwide, 15 million of whom, according to the United Nations, have been transported by professional smugglers. Migrant smuggling has a population of four million, which translates into seven billion dollars a year worldwide. In Europe, the majority of cases of illegal immigration have been registered for Greece, Italy, Spain, and France, which together compensate for 80% of the total number of cases. Further information and data may be retrieved from the IOM and the well-known map of migrant smuggling in the world (IOM 2017).

The EU has gradually developed a common asylum system, which, however, is described by complexity and, in many cases, inefficiency, which is, to a certain extent, dissuasive to refugees. In 2014, there was a major change in the European policy to address undocumented immigration. The EU has converted its initiative from a preventative measure to a strategy to preclude the potential danger of illegal

immigration. It has also decided to transfer part of the migration policy from the cornerstone of internal affairs to that of the Common Security and Defense Policy. In other words, it has determined to mitigate the problem of illegal immigration and smuggling by establishing extraordinary strategies that are part of the Union’s foreign security policy, such as the EUNAVFOR MED military naval operation. Nevertheless, when it is contended that an event necessitates urgent action that extends beyond normal political and legislative procedures, this problem has become a significant security threat (Léonard 2010).

The geopolitical position of Greece, Turkey, and the broader Balkan countries actually makes the country of Greece and also all the above mentioned countries extremely vulnerable to significant migrant flows from countries in Asia and Africa. Greece is a crucial gateway to refugee and immigrant entry into the European Union, which is largely illegal (UNHCR 2014; HELBLING et al. 2017).

4 Discussion

Migration policy issues, migration management, and regulation are now progressing beyond national and local institutional frameworks and bilateral agreements between states toward narrower regional and multilateral collaboration between home countries, transit, and destination. It is increasingly recognized that migration policy issues require enhanced global governance (Castles and Miller 2009; Abou-Chadi and Helbling 2018) (Fig. 2).

Globalization of migration concerns could be addressed in the sense that migration is a dominant political concern not only for developed countries but also for the

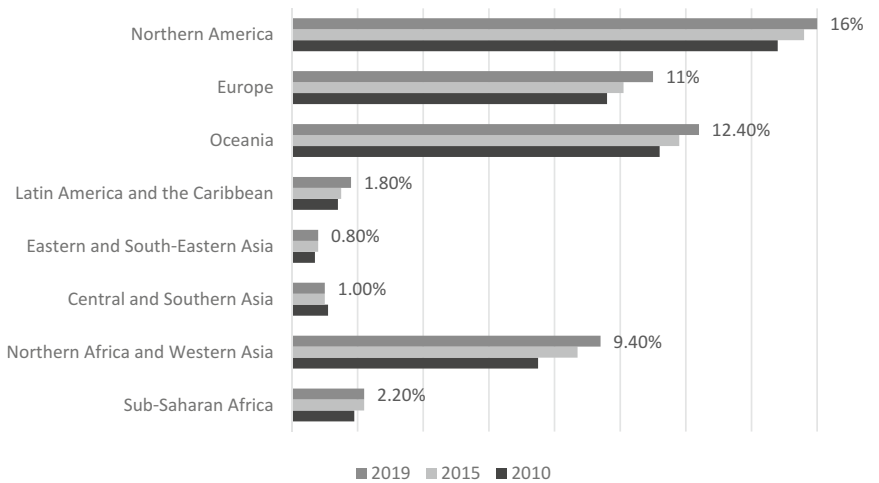


Fig. 2 International migrants as a percentage of total population by major area of destination. Source: United Nations (2020)

developing world (Global Commission on International Migration (GCIM 2005)). Migrants do not reciprocate conceptually to developmental constraints or inequalities that push them out of their countries or simply migrate to satisfy the demand for labor in host societies. Although the bottom line of the migration process is influenced by macro-level structural conditions, the subjective who, when, why, and how migration continues to be the result of decisions, practices, and strategies by individuals, households, and their wider social networks.

From the very earliest stages of European policy making, the European strategy has been represented by defensive and dissuasive means aimed at repulsing migratory inflows. This is also apparent in the present crisis in which the EU is called upon to face the greatest influx of migrants since the Second World War as a result of the Syrian war. A new protection indicator is the establishment of Migration Support and Management Teams, which will be implemented at hotspot sites where immigration flows go further than national management borders and will be manned by Union agencies (such as Frontex, EASO, and Europol).

In conjunction, the Commission frustrated the need to establish a permanent European Border Guard that would perform on a continuous basis and preserve the Union's external borders, while rationalizing the procedure of several countries as a metric of urgent situation and temporary duration and reintroducing verifications at their internal borders in contravention of the Schengen rules. Enhancing collaboration with third countries is one of the EU's crucial techniques for managing and combating migration. It is now a major concern for the Union to improve cooperation ties and agreements with neighboring countries confronting the instability in Syria, as well as Syria's diplomatic approach to pursuing a negotiated solution (COM(2015) 490 final/2 2015).

The concept of "good practice" can be divided into at least three levels: the purpose, the criteria selected, and how the practice is composed. The prevalent term "good practice" relies on the idea of the instantaneous use of know-how and applied research. It also implies the knowledge accumulated and applied. The adjective "good" does not indicate a distinction between it or similar practices (Helbling 2016). One main question that arises from this brief overview is whether the proposed good policy will eventually be purely a part of the existing national policies or whether it will be a new method of dealing with the migration phenomenon. It is a widespread belief that the challenge of transforming this policy is unprecedented for global data since the first attempt has been made to accept decisions that are mutually agreeable in such a wide variety of countries that, in addition, have historically significant political, economic, and cultural differences (Abel and Sander 2014). This fact alone would be capable of producing a first alternative explanation referred to above, since, at least in the medium term, prevalent national requirements and expectations for managing migration need to be identified in order to avoid internal downturns to European cohesion but also to the compound of the world. So how good policies may help and minimize the problem? This is a question with many parallel answers.

The main scope of the management of migration flows is the setting of the so-called good policies. It is important to get acquainted with the problems

encountered by a European country in relation to the migration crisis as well as the policies with which it has managed to control the phenomenon. As mentioned, younger people, for example, are in the position of contributing to the further growth, mostly at an intellectual level, of a country other than their own—already established—in order to construct the foundations for a more brighter future (Vlachadi 2010). Every knowledge that may derive might contribute as a framework for the implementation of a specific immigration policy, as well as a reference for national policy making in those countries that have just achieved success as host countries in recent decades (Schmid and Helbling 2016; Raymer et al. 2013). Greece would indeed be another such scenario. Definitions of “good practice” as far as policies on immigration concerned, in particular, the findings presented here originate from the existing international institutional framework and, on the other hand, from concrete actions and initiatives. The summary of policies enacted and enforced in each country over time is followed by a study of particular policies and actions in the specific thematic areas:

- Conditions for entry and residency.
- Policies for the integration of immigrants with focus on employment and the labor market, education, training and language skills, the right to family reunification, urban citizenship, access to social services, and social benefits (Terzoudis et al. 2017).

Migration as an area of public policy management and implementation is complex and unpredictable. Social and political stakeholders are changing consistently and rapidly, and the elements of the phenomenon (number of immigrants, origin, direction, entry strategies to the recipient country) are developing rapidly. The state cannot compromise with refugees, since even though they are legal, they are generally deprived of their basic human rights. The formation of communication between immigrants and managers is not feasible, as immigrants struggle to articulate their desires, thoughts, and expectations for the community in which they live, work, and travel. Migrants may form a disenfranchised part of society and endure from a plethora of inequalities without being able to react and support the situation.

5 Conclusion

Encountered with the ongoing migration flows, the EU has been forced to implement policies and legislation to deal with both legal and illegal immigration. In reality, notwithstanding the subsequent and increasingly cohesive and specific initiatives and decisions of the institutions of the Union, the harmonization and efficacy of immigration and asylum policies remain minimal and generally unjustified. For the most portion, every legislative and political effort deals mainly with illegal immigration, with punitive policies such as increased control of external borders and connecting immigration to internal security and justice, in addition the terrorist

attacks initiated in 2001 with 9/11 and increased in frequency and severity with the rise of ISIS in the Middle East and integration.

In order to address the blazing immigration debate in an area adjacent to volatile and economically delicate countries largely linked to the phenomenon of terrorism that is directly threatening the EU and its acquis, it is necessary to have a bold and long-term plan based on feasible appraisal of the situation.

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