Impact Analysis of the Relationship: Intellectual Capital, Performance and Social Responsibility of the Organization

Dalia Simion and Daniel Tobă

Abstract Profound transformations manifested in the global and complex business environment generated changes in the development strategy of the companies, which understand that achieving a sustainable competitive advantage is based on a competitive workforce and increasing labor productivity is possible through the global development of human capital. The development of knowledge based economy has led to a new general concept, that of intellectual capital. Intellectual capital or its components cannot act individually, but only in tandem with other resources of the company enabling sustainable value creation in the future. Sustainability is understood as satisfying both economic and non economic interests of all stakeholders, from shareholders, capital providers and employees up to the entire community. Thus, in recent years, there has been a notable rise in the number of companies implementing social responsibility in their strategy. Intellectual capital and corporate social responsibility have become the most powerful factors determining the firms' adaptation to the changes of business environment. This paper aims on one hand, to analyze the impact of intellectual capital on company's performance, seen in financial and non-financial terms, and on the other hand, to analyze the interaction between intellectual capital and social responsibility activities of companies, elaborating a conceptual model that explains the interactions in the trinomial: intellectual capital, performance and social responsibility.

1 Introduction

In the last decade, the economic environment has been marked by profound changes, all companies facing a number of key issues such as globalization and hence increasing competition. Thus, the development of information and communication technologies, changes in consumer behavior and the increase of intangible assets role are factors affecting the competitiveness and development of companies.

D. Simion (✉) · D. Tobă
Faculty of Economy and Business Administration, University of Craiova, Craiova, Romania
e-mail: daliasimion@yahoo.com; danutob@yahoo.com

S.O. Idowu et al. (eds.), *Current Issues in Corporate Social Responsibility*, CSR, Sustainability, Ethics & Governance, https://doi.org/10.1007/978-3-319-70449-4_5

Human capital and its influence on economic growth and performance can contribute to strengthening the position of a country or company. It is obvious that through modern communication and information technologies the rapid spread of knowledge will reduce temporal and spatial disparities in human activities and this process will affect human society in all its aspects: economic, social, political, cultural.

The economic activity of this stage of evolution of society is characterized by major changes compared to traditional economy. It is an economy based on the rapid exchange of information in real time. The term that defines this stage of development of economy is "new economy", which was first used in the mid 1990s, and is the result of structural changes occurred in the last decades of twentieth century, mainly due to technological innovations and the effect of globalization process.

The main feature of this new economy is that intangibles are more important than the fixed assets. In knowledge based society "*the knowledge based economy (digital economy, on-line market) is very important, crucial and essential and includes the use and management of existing knowledge, both technological and organizational ... a new economy in which the innovation process is decisive*" (Drăgănescu 2002). Also, workforce flexibility and its growing capacity for innovation, capable of producing a higher added value, involves an issue of human resource management in the sense of discovering and keeping the employees who are able to bring added value to the organization based on the knowledge gained. Employees of the new economy will be different than those working in traditional economy by being subjected to a process of continuous learning and permanent professional development.

In response to the profound changes manifested in the global and complex business environment, most organizations have understood that achieving a sustainable competitive advantage is based on a competitive workforce and increased labor productivity is possible through the global development of human capital. The development of knowledge based economy has led to a new general concept, that of intellectual capital. Intellectual capital is a resource created, purchased and preserved by an organization, which does not have tangible form, but contributes to value creation together with material and financial assets. Intellectual capital or its components cannot act individually, but only as an ensemble with other resources of the company enabling sustainable value creation in the future. Sustainability is understood as satisfying both economic and non economic interests of all stakeholders, from shareholders, capital providers, employees up to the entire community. Thus, in recent years, there has been a notable rise in the number of companies implementing social responsibility in their strategy. Intellectual capital and corporate social responsibility have become the strongest factors determining companies to adapt to business environment changes.

2 The Relationship Between Intellectual Capital and Company's Performance

The theory of human capital has undergone a series of changes over time, one of the main issues being to separate this concept from the concept of gross labor. Human capital has profitability as its essential feature. According to Mincer (1958), the profitability of human capital is equivalent to the amount of investment made to obtain human capital.

Becker (1962) argued that not only material assets but also human capacities can accumulate and become a capital stock. Mobility as an essential feature of human capital also provides flexibility and widening the potential of human resources as a factor of growth and economic development (Neagu 2008). Intellectual capital is a general concept that emerged in recent decades with the development of innovative economy.

Over time were given numerous definitions of intellectual capital and from their analysis the following conclusions are drawn:

– The concept of value creation occurs frequently in the definition of intellectual capital, suggesting that its use implies an increase of the organization's value;
– Most definitions contain essentially the following words: knowledge, skills, know-how, experience, intangible assets, hidden value of companies (Bontis 2001), information, processes and value creation.

Intellectual capital is a resource created, purchased and preserved by an organization, which does not have tangible form, but contributes to value creation together with material and financial assets. Intellectual capital or its components cannot act individually, but only as an ensemble with other resources of the company enabling sustainable value creation in the future. The ever-changing business environment requires businesses to build dynamic business plans, including creativity and innovation, to ensure their sustainability in the marketplace. The contribution of intellectual capital is significant in increasing the competitiveness of firms (Barney and Clark 2007).

Intellectual capital is divided into three major categories:

– Human Capital;
– Relational Capital;
– Structural Capital.

Human Capital refers to the knowledge, skills and experience, talent and creativity that individuals have, and employees take those along with them when they leave the organization. Human capital refers to the combined knowledge, skills, experience, creativity of the workforce, attitudes and motivations, all embedded in the collective capacity of entities to extract the best solutions (Gates 2010). This component of intellectual capital is mainly characterized by the fact that it does not belong to the company, but is a basic resource in the competitive battle of enterprise on the market.

Structural Capital (organizational) is understood as the organizational and financial structure of an enterprise represented by the knowledge which remains

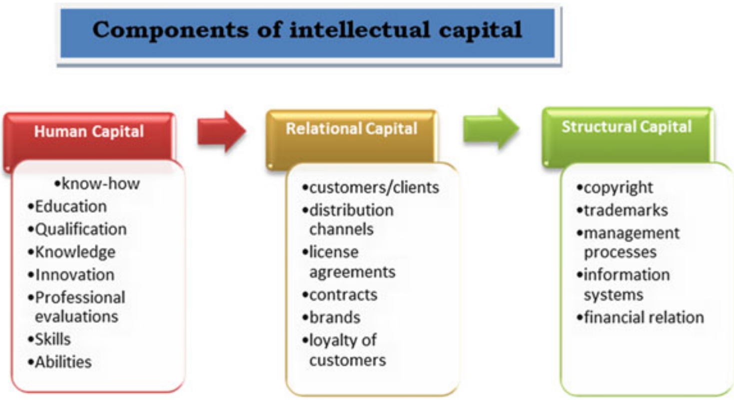

Fig. 1 Intellectual capital structure

within the company, including strategic processes, procedures and organizational systems, information technology, databases, information technology, organizational skills that support staff productivity and contribute significantly to gain a better market position by an increased value added. Unlike human capital, structural capital belongs to the company and is considered the second most important resource of it.

Relational Capital represents all resources related to the external relations of the company, such as customers, suppliers, partners in research and development. Relational capital includes the share of human capital and structural capital involved in the company's business relationships with investors, creditors, customers, suppliers and others, relating to customer satisfaction, connections with suppliers, negotiating ability, social responsibility activities, etc.

Intellectual capital components (summarized in Fig. 1) have no significant value when considered individually, but the interaction between them and their functioning as a system generates value for the company.

The different conceptions that concern value and changes that appear within companies lead to a new definition of value. Value is not anymore defined as a single number, thus it comes from different sources, fact that requires as necessary its balancing with quantitative and qualitative data and its observing both from the financial perspective as well as from the non-financial one. Data can refer to value contribution at the tactical level (implemented activities) or at the strategic level (the investment profitability in human capital) (Simion et al. 2009). After the 1990s, in the evaluation methods of enterprises, the attention was turned from financial aspects and techniques to intangible assets and knowledge. Only by encouraging intellectual capital in the enterprise, it will be able to remain competitive and fight against competitors, creating a sustainable competitive advantage. This is why an organization must evaluate the intellectual capital and its components, and then monitor and develop its performances.

3 Intellectual Capital Versus Organizational Performance

In a traditional approach, the evaluation and management of an enterprise's performance does not consider the notion of knowledge, focusing exclusively on the financial results presented in the financial statements.

During the 1980s, some authors (Kaplan and Johnson 1987) have argued that performance management systems based solely on financial results are unable to meet the modern needs of the company, proposing more comprehensive approaches that took into account non financial information as well. Consequently a series of performance measurement models were created and used more or less widespread.

3.1 Balanced Scorecard

The first model for the measurement of a company's performance, which includes nonfinancial variables, was Balanced Scorecard developed in 1992 (Kaplan and Norton 1992). The model focuses on four strategic areas of information:

– finances,
– customers,
– internal business processes,
– innovation and learning.

The Balanced Scorecard model represents a support in the development and management of a company's strategy, combining key elements of progress and providing an overview of the global strategy by including, in addition to financial measures, some key insights:

– customer perspective, addressing how the customer sees the company (such as: market share, satisfaction and customer loyalty surveys, relationships with suppliers);
– internal businesses perspective, leading the company to identify those actions that it needs to excel (e.g. effective measures for work practices and production processes, reduction of production cycle time, decrease of unit costs, scrap rate cuts, etc);
– innovation and learning perspective, addressing how the company should improve their business operations and create value in the future (new ideas and suggestions from employees, staff satisfaction, increase of qualification levels, staff attitude).

Balanced Scorecard model enables a comprehensive approach to a company's strategy because it is based on the relationships between objectives and related activities, being flexible and adaptable to any organization. The model is not based on control as in the traditional performance measurement systems, but focuses on strategy and vision, being consistent with the concepts of functional integration, customers-suppliers partnerships, continuous improvement and team responsibility.

3.2 Performance Pyramid

Performance Pyramid (Fig. 2) is a second generation model of evaluation and management of performance, developed by the Cranfield School of Management, who takes into account a global approach to the interests of all stakeholders, not just investors but also clients, intermediaries, employees, suppliers, regulators and the community.

The Performance Pyramid model examines the mutual relationship and sharing process with all parties concerned, by using strategies (corporate, operational, brands, products, services), processes (product and service development, planning and management organization), and most importantly, capabilities (people, practices, technologies, infrastructure) that are necessary to meet the needs and desires of stakeholders. The flexibility of this model enables its application in any organization. However, the emphasis put on intangible assets as factors determining the growth of performance creates the framework for assessing the intellectual capital of companies. It creates a picture of how different performance areas interact.

3.3 Analysis of Knowledge Assets

Addressing knowledge assets takes into account the knowledge-based vision of a company and has been developed to help companies identify and assess their assets based on knowledge and their contribution to value creation. Once identified,

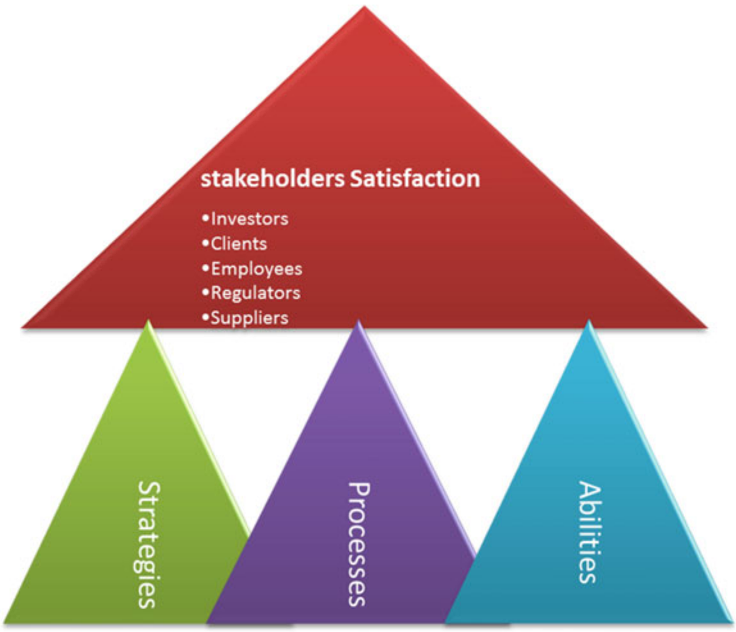

Fig. 2 Performance pyramid

knowledge assets can be easily integrated into various performance evaluation models. Knowledge assets are identified as a sum of two organizational resources: stakeholders and structure. This distinction reflects two key components of any company: its actors, which can be internal or external, and its component parts or elements on which organizational processes are based (Fig. 3).

Resources of stakeholder are shared in the relations between them and human resources. Stakeholder relations shall include any form of relationship established by the company with stakeholders from licensing agreements, financial relationships or contracts, distribution agreements to customer loyalty, which is a fundamental connection between the company and one of the interested parties. Human resources contain information provided by employees in various forms of skills like motivation and loyalty. The key components are the know-how, technical expertise and solving problems of creativity, education and attitude.

Structural resources are divided into physical and virtual infrastructure. Physical infrastructure refers to infrastructure tangible assets, such as IT equipment, which is often neglected as an asset of knowledge, but plays a vital role in disseminating knowledge.

Virtual infrastructure takes into account culture, procedures and practices and intellectual property. Organizational and management culture is of fundamental importance for the organization's efficiency, focusing on the values, mission and strategy of the organization. Procedures and practices applied include norms, rules, databases, management styles, which determine how the activity is conducted in an organization. Intellectual property refers to all patents, copyrights, trademarks, instruments that allow the company to create value.

This structuring (Fig. 4) can be used to identify knowledge assets, which can provide afterwards the basis for the discovery of how these assets are interdependent and transformed to meet the needs of stakeholders.

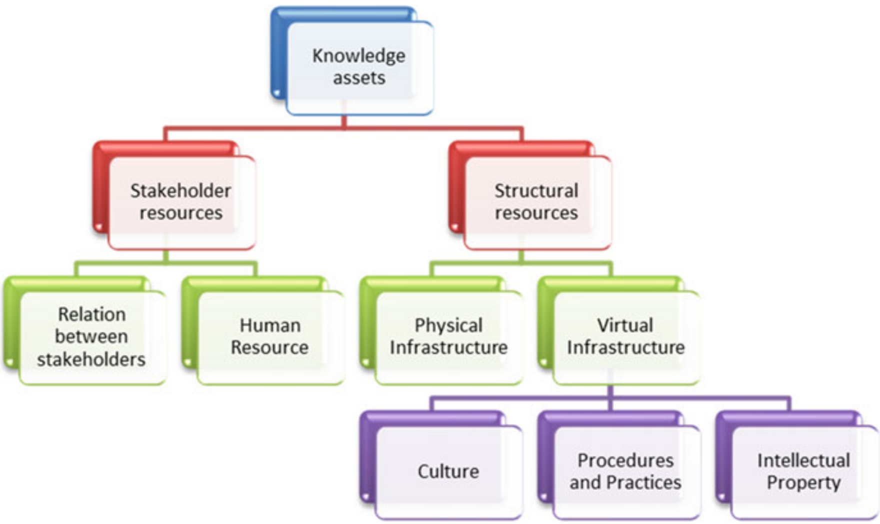

Fig. 3 Components of knowledge assets

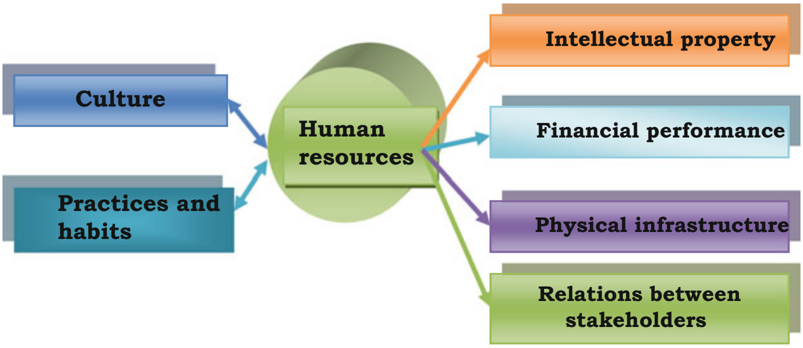

Fig. 4 Interdependence of knowledge assets in a company

Knowledge assets are different from one company to another and therefore their recognition and assessment is difficult. A number of indicators are used to measure knowledge assets, since there isn't any system widely accepted and applied to all organizations.

Human resources are assessed using:

- demographic indicators such as number of employees, company seniority, seniority at job, the percentage of permanent staff in total employment, the number of female/male managers, etc;
- competence indicators such as number of highly skilled/educated employees, number of employees with PhD/Master in total employment, number of years in the profession, etc.;
- attitude indicators, such as the average level of satisfaction (measured a Likert type scale), savings resulting from the implementation of the employees' suggestions, number of new solutions, products and processes suggested by staff, qualities of employees (loyalty, commitment, entrepreneurship, enthusiasm), motivation and behavior indicators;
- human resource management indicators, such as vocational training expenses, turnover per employee, period of training, expenditures for development of social and personal activities for employees, indicators related to recruitment practices, etc.

Stakeholder relations are quantified by the number/quality of the agreements of partnership, distribution, licensing, but also by partners' satisfaction indices, etc.

Culture is a knowledge asset that can be assessed by the management philosophy, number of internal disputes and complaints, indicators of employees' satisfaction, motivation, behavior, commitment, loyalty, etc.

Processes and routines are measured by the number of coded processes, network practices, standards, databases available, Intranet services, etc.

Intellectual property refers to the income obtained from patents, number of patents and registered designs, copyright value, trademarks, value of patents compared to the costs of research and development, etc.

4 The Intellectual Capital and Corporate Social Responsibility Relationship

The companies are nowadays facing increasingly higher competition, as well a growth of business opportunities but also of risks. In the development of their business strategies, two important concepts, namely intellectual capital and social responsibility, were essential. Over time, these concepts have evolved and have been developed independently of each other, with no interconnections. But lately, it appears that between intellectual capital and corporate social responsibility there are multiple links, which leads us to address them in a convergent manner.

The concept of corporate social responsibility goes back more than four decades ago, starting with the foundation of multinational corporations and it is considered therefore a consequence of globalization.

Corporate social responsibility is a set of practices, policies and programs developed within the companies' strategies so that they take into account social and environmental issues in order to create an effective relationship between the business environment and the society in which the company operates.

The objective of companies' managers was, for a considerable period of time, maximizing profits without paying attention to the effects on stakeholders such as: employees, environment, suppliers, etc. In recent decades, companies have realized the relationship of interdependence between the company and society, their competitiveness largely depending on the degree of integration of corporate social responsibility practices within their business strategies.

The companies should not be focused only on maximizing profits or increasing market share, but they should have as main objective the efficient allocation of resources in order to maximize the market value of the company, which is precisely a corporate social responsibility strategy (Rhys Jenkins 2005).

The essence of corporate social responsibility is that corporate behavior means not only granting the profitability of shareholders, employees' wages and consumer products and services, but it must meet the requirements and values of society and the environment as well.

Through a proactive approach to the business strategy and direct relationship with the environment in which they operate, companies will generate and maintain a competitive advantage.

Long-term success of companies is increasingly more influenced by three important elements:

- Leadership,
- Business ethics
- Ethical and moral values.

An unethical managerial behavior can lead to corporate failures. Social responsibility is based on the conduct of entrepreneurs and top executive management of companies, which must give strategic importance to the ethical and moral values. They are a key component of the entire organizational culture, which affects the companies' activity such as competitive strategies, personnel policies and relations

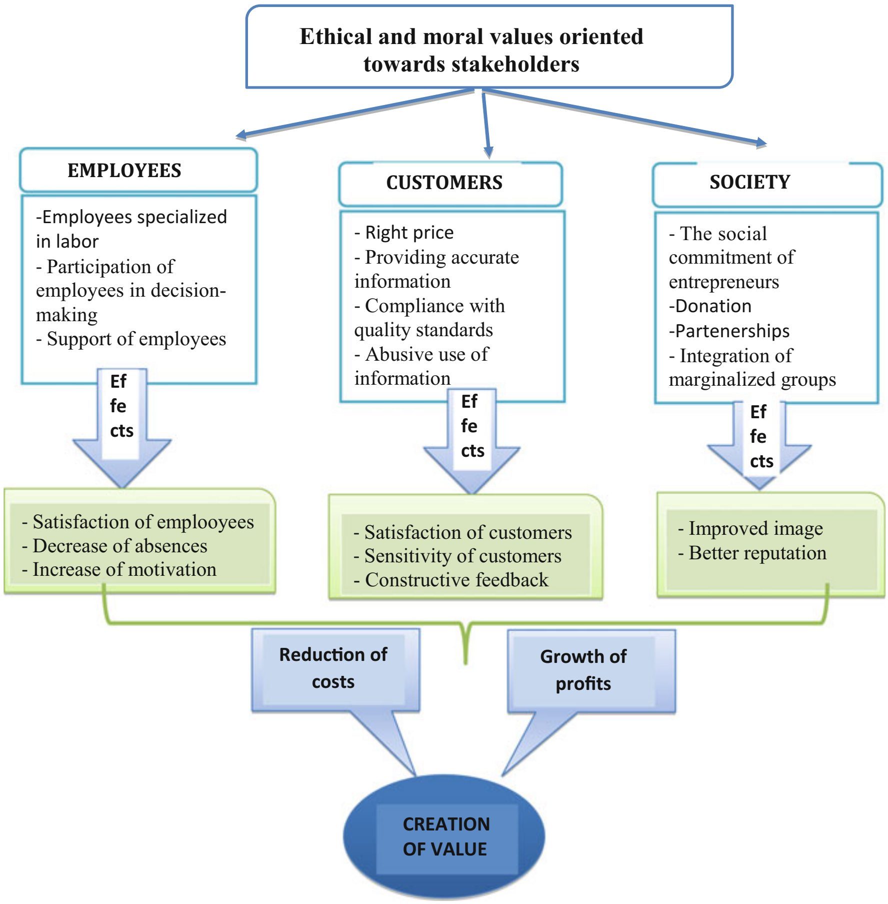

Fig. 5 Ethical and moral values of CSR

with different stakeholders (Hunt et al. 1989). Companies that record high performances benefit from a set of well-defined ethical and moral values, which allows us to say that they are part of the business strategy (Pedrini 2007). Corporate social responsibility should be understood as being oriented towards both the processes and the results, as shown in Fig. 5.

The value of companies is generally recognized based on its future profits. Therefore, all stakeholders have given them an increased attention, particularly to their sustainability. A fundamental role in social responsibility activities belongs to intellectual capital. Innovations are created primarily by investment in intangibles. The new products, services, and processes are generated by the innovation process. When such investments are commercially successful, they are transformed into tangible assets creating corporate value and growth (Lev 2001).

Intellectual capital and corporate social responsibility are two very important concepts used in modern management of companies. For some time, these two

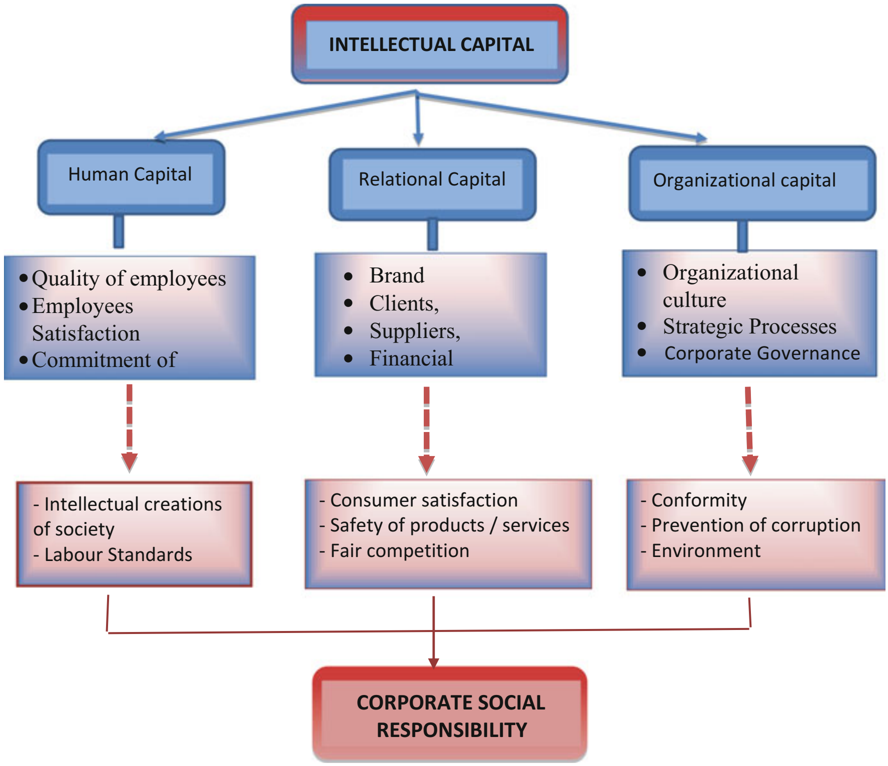

Fig. 6 Intellectual capital

concepts have been developed independently of each other. Lately, it can be noted that they have multiple connections, even overlaps in some areas of manifestation, which determines the treatment of the two concepts together.

Intellectual capital can be regarded as an element of corporate social responsibility, in the sense that each component of intellectual capital (Fig. 6) can be found in the concept of corporate social responsibility through the effects they induce.

Quality of employees has become lately an important factor for the company in obtaining a competitive advantage, given that the emphasis on product, production technology and access to different markets is no longer enough for a company's success (Pfeffer 1994). Characteristics of employees' quality, including intelligence, motivation, experience, vision, creativity, commitment, capacity of analysis and synthesis and IT learning skills generate implications on the social responsibility activities of companies, in particular by increasing the company's capacity to engage in social and environmental activities, vocational training and creative activities or in volunteering for social and environmental causes. In general, a company with a high level of social responsibility activities tends to be more attractive to employees, leading to a low rate of new employees, thus reducing the costs of recruiting and training new employees.

Another important component of human capital is employee satisfaction, which relates to:

– Employees' emotional attachment (emotional relationship between employees and organization);
– The responsibility of employees (employees who feel more responsible are valued);
– Reward (the belief that if they work "very hard", they will be awarded);
– Appreciation (the belief that if they work "hard", they will be appreciated);
– Hoping to achieve personal results (hope that if they work "hard", they will achieve high performances).

All these elements lead to increasing the motivation of employees to engage in social responsibility activities, strengthening employees' commitment and loyalty to the company and enhancing the relations between the company and employees.

Employees' engagement mirrored by the people's confidence in their employers as well as their willingness for a career (employees seeking career focus on long-term benefits and a strong relationship with the organization) leads to an improvement of company's reputation and growth of the company's attractiveness for the workforce.

Organizational capital, the second component of intellectual capital, has significant influence over the activities of corporate social responsibility. Organizational culture, strategic and management processes, corporate governance and R & D within the company is reflected in corporate social responsibility by improving organizational commitment, rethinking competitive strategies that become more oriented on stakeholders, strengthening market position, managing more efficiently the relations with stakeholders, improving internal communication channels. Implementation of a corporate governance code of conduct at company level will have as impact the growth of environmental, health and safety of employees' quality, improvement of internal control system and guarantee of transparency in decision making. A high level of research will stimulate in the companies an increase in the number of patents, copyrights, trademarks, instruments that allow the company to create value and develop environmental investments.

Relational capital, the third important element of intellectual capital has significant effects on corporate social responsibility activities through its components. The company's brand may lead to the improvement of company's economic, financial, and social image and the increase of investors' interest. Constant relationship with customers and suppliers will determine customers' loyalty and attract new customers, strengthening the cooperative relations, improving suppliers' performance and their social and ethical profile. Financial relations will enhance the attractiveness of company for investors and financial analysts.

Companies that have the ability to develop a strategy to meet the expectations of human resources, based on the principles of corporate social responsibility, will stand out from other companies and record high levels of profitability. A company with corporate social responsibility increases its intangible assets and intellectual capital, attracting new resources and capacities that will become a source of competitive advantage for the company.

Consequently, companies depend largely on their ability to attract, manage and develop intellectual capital, which is the starting point in integrating social and environmental aspects in the general management of companies.

References

Barney, J. B., & Clark, D. (2007). *Resource-based theory. Creating and sustaining competitive advantage*. Oxford: Oxford University Press.

Becker, G. S. (1962). Investment in human capital: A theoretic analysis. *The Journal of Political Economy, 5*(Part 2), 9–49.

Bontis, N. (2001). Assessing knowledge assets: A review of the models used to measure intellectual capital. *International Journal of Management Reviews, 3*(1), 41–60.

Drăgănescu, M. (2002, April 29). Notă deschisă privind ştiinţa, cultura şi societatea românească. Found on November 25, 2014, on www.racai.ro, http://www.racai.ro/media/Nota-deschisa-29apr02.pdf

Gates, S. L. (2010). Human capital measures, strategy and performance: Human resources managers perception. *Accounting, Auditing & Accountability Journal, 23*, 111–132.

Hunt, S., van Wood, R., & Chonko, L. (1989). Corporate ethical values and organizational commitment in marketing. *Journal of Marketing, 53*(3), 79–90.

Jenkins, R. (2005). Globalization, corporate social responsibility and poverty. *International Affairs, 81*(3), 525–540. http://earthmind.net/fdi/misc/ia-globalisation-csr-poverty.pdf.

Kaplan, R., & Johnson, T. (1987). The rise and fall of management accounting. *Management Accounting, 68*(7), 22.

Kaplan, R., & Norton, D. (1992, January–February). The balanced scorecard – Measures that drive performance. *Harvard Business Review, 70*, 71–79.

Lev, B. (2001). *Intangibles: Management, measurement and reporting*. Washington, DC: The Brookings Institution Press.

Mincer, J. (1958). Investment in human capital and personal income distribution. *The Journal of Political Economy, 4*, 281–302.

Neagu, O. (2008). *Capitalul uman şi creşterea economică.*. Bucureşti.

Pedrini, M. (2007). Human capital convergences in intellectual capital and sustainability reports. *Journal of Intellectual Capital, 8*, 346–366.

Pfeffer, J. (1994). Competitive advantage through people. *California Management Review, 36*(2), 9–28.

Simion, D., Tobă, D., & Barbu, D. (2009). *Investment in human capital–determinant factor in creating value within modern companies* (Vol. 15, pp. 96–103). Annals Economic Science, Tibiscus University, Timișoara.