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THE CONCEPT OF THE INTELLECTUAL CAPITAL - THEORETICAL CONTRIBUTION TO THE MANAGERIAL THEORY OF THE FIRM

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Abstract: *Given that the concept of Intellectual capital (IC) came from business practice, it can be said that it is a practice in search of a theory. Studying the theoretical contribution of this concept is challenging as it demands the systematization of all relevant theories in which it finds its foundation and all aspects of its research. The crucial issues addressed in the concept of IC are: Has the economy based on knowledge influenced the emergence of a new matrix of value creation, and, if so, how is it possible to identify the essential resources which have the most influence on the process of value creation? To answer these questions, the concept of IC develops both the theoretical basis and practical guidelines and tools that contribute to a more precise definition of the strategic assets of the firm and their role in the process of value creation. For the concept of intellectual capital, the articulation of the value creation process is the essential precondition for firms' success because that is something intrinsic to the firm and cannot be imitated by competitors. This study aims to determine the contribution of the IC concept to the managerial theories of the firm.*

Keywords: *intellectual capital, theory of the firm, core capabilities, strategic resources, value creation*

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KONCEPT INTELEKTUANOG KAPITALA - TEORIJSKI DOPRINOS UPRAVLJAČKOJ TEORIJI PREDUZEĆA

Sažetak: *S obzirom da je koncept intelektualnog kapitala (IK) proizašao iz poslovne prakse, može se reći da je to praksa u potrazi za teorijom. Proučavanje teorijskog doprinosa ovog koncepta je izazovno, jer zahteva sistematizaciju svih relevantnih teorija u kojima on nalazi svoje temelje i svih aspekata istraživanja na temu IK. Ključna pitanja koja se obrađuju u konceptu IK su: Da li je ekonomija zasnovana na znanju uticala na nastanak nove matrice stvaranja vrednosti, i, ako jeste, kako je moguće identifikovati suštinske resurse koji imaju najveći uticaj na proces stvaranja vrednosti? Da bi se odgovorilo na ova pitanja, u okviru IK koncepta razvija se kako teorijska osnova, tako i praktične smernice i alati koji doprinose preciznijem definisanju strateških sredstava firme i njihove uloge u procesu stvaranja vrednosti. Za koncept intelektualnog kapitala, artikulacija procesa stvaranja vrednosti je suštinski predušlov za uspeh preduzeća, jer je on neodvojiv od firme i konkurenti ne mogu da ga imitiraju. Ova studija ima za cilj da utvrdi doprinos koncepta IK teorijama menadžmenta.*

Ključne reči: *intelektualni kapital, teorija firme, osnovne sposobnosti, strateški resursi, stvaranje vrednosti*

1. INTRODUCTION

In economic theory, there is a long tradition of interest in knowledge and its contribution to the firm's value creation process. Early Neoclassical Economics assumed that each firm had a fixed amount of knowledge. Through the market price mechanism, this knowledge enables firms to maximize their profit. This assumption excluded the possibility of different levels of knowledge, and therefore much of the tacit and explicit knowledge cannot be evaluated over the price mechanism. Assuming the unlimited rationality of economic agents and the constant aspiration of the market to achieve a state of equilibrium, early neoclassicists saw innovation and knowledge as the product of a rational choice between the already existing technological and structural alternatives present in the environment. In other words, knowledge is seen as exogenous, not endogenous to the company, and external environmental factors explain the competitive strategy. Unlike neoclassicists, Austrian Economics and its representatives von Hayek (1945) and Schumpeter (1951) attach much greater importance to knowledge. They argue that knowledge is subjective and therefore cannot be treated as fixed. According to them, different levels of knowledge possessed by individual firms and the uniqueness of their knowledge

are the main elements that determine the dynamics of economic change. Penrose (1959) further explores the significance of the organization's accumulated knowledge and experience and sees the firm as a reservoir of knowledge. According to her, inputs do not represent resources per se but ways of using resources in the production process. Ways of transforming resources are a function of the experience and accumulated knowledge of the firm and are, therefore, are specific. Consequently, a firm's growth and success are supposed to lie primarily on an internal and endogenous creation and accumulation process of specific resources. Rubin (1973) sees resources as firm-specific inputs and believes that their value within the firm is higher than their value outside the firm. Simon (1991) regards decision-making ability as an essential function of the manager. Strongly influenced by cognitive and computer science development, Simon (1991) explores the nature of human problem solving and decision making. He views the organization as an information processing machine and recognizes the limitations of the cognitive capacity of human beings while introducing the notion of limited rationality. While traditional inputs are limited by physical existence, the acquisition of knowledge may be limited by the collective "limited rationality" of the organization. According to Simon (1991), the organization that faces a complex environment should be organized in such a way as to minimize the need for distributing information to their organizational units to reduce their information overload.

In the 1970s and 1980s, there was a new attempt to synthesize the scientific and humanistic approach to management. This synthesis occurs in assumptions related to the creation of knowledge society, an economy based on knowledge and the theories of organizational learning. Organizational learning theory (Argyris & Schon, 1978; Cyert & March, 1964; Dutton, 1984) primarily deals with the organizational response to the rapid and continuous changes in the economic and technological environment. Senge (1990) noted that a large number of organizations suffer from learning disabilities. To treat this disease, he prescribes a practical model of "learning organization". Such an organization has the capacity for both generic and adaptive learning, representing its source of sustainable competitive advantage. Senge (1990) especially insists on the ability of systemic learning, which according to him, unites all other abilities into one coherent body of theory and practice.

Since the 1980s, strategic management theories have focused on how firms can gain a sustainable competitive advantage and the reasons that could answer why firms with similar characteristics and operating in the same sector achieve different success. Other authors observed that the difference in profitability within the same industry is three to five times bigger than the difference in

profitability between different economic sectors (Oster, 1982; Hatten & Hatten, 1987). By Porter's theory of competitiveness, the firm's profitability depends on the intensity of five competitive forces: the entry of new competitors, the threat of substitutes, bargaining power of customers, bargaining power of suppliers, and rivalry among existing competitors (Porter, 1985). In his theory of competition, Porter (1985) gives a framework for understanding how companies create and maintain a competitive advantage concerning the impact of factors of the competitive environment. He explained how the industrial structure determines the profitability of companies.

However, since the early 1980s, there has been increasing empirical evidence in the economic literature that the difference in profitability stems from the specificity of their resource portfolio (Rumelt, 1984; Cool & Shendel, 1988; Grant, 1991; Barney, 1991; Mahoney & Pandian, 1992). Authors who studied innovation focused on analyzing the sources of "Schumpeterian" rent (innovation) and the resource-based view of strategic management. They then started developing the concept of "Ricardian" rent (strategic resources), focusing on the specific resources and their role in building the firm's sustainable competitive advantage.

The concept of resource-based theory of the firm was developed by Wernerfelt (1984), who explores the role of strategic resources in raising barriers to entry. The basic principle of the resource-based theory of the firm is that resources and products represent different sides of the same coin. Resources are defined as tangible and intangible assets which are tied to the firm at a time. Contrary to neoclassical economic theory, resources are assumed to evolve over time due to the limited rationality of economic agents and management decisions. Based on these factors, a specific set of organizational skills is created over time (Amit & Schoemaker, 1993). This theory, which is founded on assumptions of heterogeneity, non-transferability and inability to imitate specific resources, indicates that a firm can build a sustainable competitive advantage based on its strategic resources that can create superior values. Barney (1991) stresses that the ability of resources to contribute to the strategy of value creation and their rarity represent the preconditions for determining resources as strategic assets. On the other hand, the inability of their imitation and substitution is characteristic of their strategic nature, due to which firms can build a sustainable competitive advantage. Therefore, he concludes that those rare resources that can create value can also contribute to creating rents and competitive advantage. However, only those resources which cannot be imitated and substituted create a sustainable competitive advantage. Therefore, the resource-based theory of a firm is most focused on the analysis of intangible

strategic assets because they are the most difficult to imitate. This theory is mainly concerned with the ability of firms to protect and maintain a combination of resources that competing firms will not be able to build in the same way. Consequently, the mechanism that protects the firm's heterogeneity of resources has become the foundation of the resource-based strategy of the firm. The isolating mechanism that creates an ex-post limit for competitors is built based on the firm's development paths that are contextually specific and that reflect its unique historical heritage in which they over time build their competitive capabilities (Dierickx & Cool, 1989). This theory provides the basis for understanding that sustainable competitive advantage depends on the ability of competitors to use identical or similar resources that will have the same implications for firms' performance. Therefore, the firm's ability to avoid imitating its resources determines its competitive strength.

The resource-based theory of the firm was further developed within the concept of dynamic and key capabilities. In the early 1990s, Teece and Pisano (1994) developed the concept of dynamic capabilities. They believe that firms build strategic advantage relying on the factors that allow for successful work in the internal environment and their ability to respond adequately to the changes in the external environment, which allows them to create new products and processes. Dynamic capabilities represent the ability of firms to adjust, learn, change and renew continuously. Hamel and Prahalad (1994) developed the idea of key competencies, which they define as the result of collective learning, especially regarding coordination of various production skills and integration of multiple technology streams. Both concepts emphasize the behavioral aspects of strategy, in other words, not primarily where the firm should compete but how it will compete. Also, both concepts underline that the sources of competitive advantage should be sought within the firm, in its resources and capabilities, thereby challenging the structural approach of the Porter theory of competitive forces, which advocates that the sources of competitiveness should be sought in the competitive environment (Porter, 1985).

The evolutionary theory has been developed simultaneously with the development of the resource-based theory of the firm. The evolutionary approach deals with the issue of the origin of a firm's specificity and how these specificities are created, maintained and defined over time (Nelson, 1991). This theory can be considered a founding concept of an alternative decision-making theory to the neoclassical one. Nelson and Winter (1982), who are considered the founders of this theory, postulate that a firm's knowledge is stored in regular and predictable matrices of its behavior, which they call routines. They compare routines with genes and view innovation as an inherited, unpredictable mutation

of routine. According to them, organizational routines are the genetic material of a firm. Some are determined by bureaucratic rules, while others are present in the organizational culture. These rules are where the knowledge of the firm is stored, which makes it different from others. Therefore, evolutionary actions cannot be understood realistically if they are treated as perfectly rational optimizing agents. The firm is considered a sum of “highly inertial repertoires, responding to today’s environment largely in terms of lessons learned from actions in days gone by” (Cohen, Burkhart, Dosi, Egidi, Marengo, Warglien & Winter, 1996.). The question is thus to understand how these “action repertoires” (the routines) are assembled, maintained and modified. Unlike the resource-based theory of the firm that focuses on the firm’s specific skills and competencies, evolutionary theory also deals with the influence of the external environment in terms of sectoral transformation. Also, unlike the resource-based approach to the firm strategy, which sees firm strategy as the product of conscious intentions, evolutionary theory sees firms as entities with particular decision-making abilities and rules. Those abilities and rules are modified as a result of conscious efforts to solve problems and as a result of unpredicted events.

In the mid-1990s, the knowledge-based theory of firm appeared, dealing with the origin of knowledge and ways of its creation. This theory treats knowledge as a firm’s central element of the process of value creation and competitive advantage. It is focused on the firm’s ability to manage knowledge (Grant, 1996). Partly taking into account the ideas of the transactions cost theory regarding the firm’s purpose, this theory hypothesizes that the advantage of conducting transactions within the firm instead of on the market is that the firm, unlike the market, has the ability to manage and coordinate knowledge of its resources. Also, knowledge creation is seen as an activity that becomes itself a source of value creation due to its uniqueness and value. The competitive advantage lies not in the created knowledge but in the process of creating knowledge. This concept contributed to expanding the perspective on organizational knowledge and ways of its creation, emphasizing the interaction between tacit and explicit knowledge. Knowledge is seen as the ability to act. That is why it is essential to articulate various forms of tacit knowledge so that they can be converted into different organizational activities based on knowledge. In 1995 Nonaka and Takeuchi presented their theory of the creation of organizational knowledge and innovation management (Nonaka & Takeuchi, 1995). They consider the process of knowledge creation itself and identify the management processes and organizational structures that contribute most to creating collective knowledge of the organization. According to them, an organization that strives to cope with a changing environment in a dynamic way

should create information and knowledge, not just process it efficiently. They also believe that the organization maintains its health by destroying the existing knowledge system when it sees the need and finding new ways of thinking and doing. According to these authors, understanding how organizations create knowledge that makes this possible is essential.

2. A CONCISE PRESENTATION OF THE BASIC OF THE INTELLECTUAL CAPITAL THEORETICAL MODEL

The intellectual capital perspective deals with ways of extracting maximum value from resources and with ways firms choose to deploy them. It is focused on creating systematic and productive conditions for building and improving firm capabilities that contribute to value creation and identifying ways by which these capabilities create value. The firm is seen as a social-economic entity that specializes in the speed and effectiveness of transforming inputs into new value through its key capabilities.

In Autor's opinion, the most concise and relevant proposition for building a theoretical model of intellectual capital was given by Ungerer and Uys (2005) in their paper "Theoretical model for building core capabilities from an intellectual capital perspective". They proposed the following key building blocks firms should use if they want to apply business and organizational strategy based on the concept of intellectual capital: strategic architecture, core capabilities framework, operationalization framework for leveraging core capabilities and change management. Those constructs should be used to create favorable conditions for developing organizational capabilities. In terms of the intellectual capital concept, this would mean developing human, structural and relational capital.

The first of them is construct referring to *Strategic architecture formulation*. The concept of "strategic architecture" was presented by Hamel and Prahalad (1994), who identified what companies need to do to be successful in the future. Strategic architecture identifies and reflects on what the firm should focus on in the present to achieve its future strategic vision. In the context of Intellectual capital theory, strategic architecture relies on the concept of dynamic capabilities and best practices related to the management of intellectual capital. According to Ungerer & Uys (2005) in the context of intellectual capital, the aim of formulating the strategic architecture is to create the connection between present and future by connecting short-term activities with a long-term strategy. It may include a description of the firm's vision and mission and a description of the key capabilities that the firm needs to ensure the achievement of its

strategic intentions. They underline that the formulation of the strategic architecture includes a few elements. First, it involves defining fundamental corporate values as an indication of the behavioral patterns that are encouraged and supported. Then, a brief description of the firm's profit (how the firm will make a profit) and business model (how the firm will organize to make a profit).

Another key construct for the theoretical model of intellectual capital proposed by Ungerer & Uys (2005) is the development of the *Core capabilities framework*. They emphasize that identified core capabilities need to be further clarified and their meaning expanded. They should be individually identified, together with their potential contribution, allowing the establishment of reference points for the direction of present and future firm's strategic behavior. This framework should reflect the content and processes related to the identification, explanation, evaluation and assumptions related to the firm's key capabilities. In other words, firms should define which activities will contribute to their long-term business success and identify and pay attention to those capabilities that are not peripheral but central to achieving competitive advantage (Hamel, 1994). This is important because all firm capabilities are not equally and fully developed. Therefore, a firm should identify those that are and can be used to create a specific combination of skills that will allow it to differentiate itself from the competition. This implies that the firm will consider only those capabilities that are specific, unique or robust and have the potential to add value. Also, they underline that firms should create indicators for each core capability. Those indicators should become parameters for a firm's core capabilities measurement system, in other words, measurement of Intellectual Capital. Ungerer & Uys (2005) underline that it is necessary to monitor and establish the firm's basic core capabilities portfolio and diagnose their development level. This should serve as an initial parameter on which the firm can determine the status of individual capabilities, i.e., their progress or future degrading.

Another key construct for Ungerer & Uys's theoretical model of Intellectual capital is *Operationalization Framework for leveraging Core Capabilities*. This component represents the operationalization phase of the development of core capabilities from an Intellectual Capital perspective. Authors emphasized that this implies a pragmatic development of core capabilities in terms of realizing tangible benefits, not only from individual capabilities but also through the conscious use of a specific combination of core capabilities. Since a framework of core capabilities represents a more static view, it is necessary to develop a dynamic, systemic way to track the relationships between the different core capabilities. According to them, this process should stimulate ideas on the

leveraging and bundling core capabilities as value-added processes. Therefore, the Intellectual capital perspective insists on the systemic approach for monitoring the interaction between the key capabilities. In that way, a managerial process is created, which adds value by enabling monitoring of interaction between individual capabilities and synergy effects that arise from these interactions. In this way, management receives information and ideas about how it can create the best combination of core capabilities that will be company-specific and possess the greatest potential for value creation.

Finally, Change management is the last key building block for Ungerer & Uys's theoretical model of intellectual capital. This construct refers to the firm's need to develop skills for the change enablement processes. Fundamental changes, which the adoption and application of the concept of IC require, depend on corporate values, norms and managerial discourse (Von Krogh & Grand, 2002). Ungerer & Uys (2005) stress that this inevitably implies changing several mechanisms that establish the parameters for decision-making, including those that define legitimate knowledge, key competencies, processes, routines, and mechanisms that explain the purpose of business, its technology, the way the firm operates. Changes in decision-making rules and rules for building corporate attitudes include alterations in corporate values, norms, corporate language and attitudes. Change management considers the development of processes that will guide a firm's change in the desired direction. The change is a challenging and complicated task as it involves a change of values, attitudes and how the organization sees itself. Therefore, policies determined in the normative, strategic and operational framework represent a valuable source of information for directing employees toward the new desired way of thinking and behavior (Mouritsen, Bukh, Larsen & Johansen, 2002). The process of change represents a cycle in which the next phase of change is negotiated in each phase. Thus, implementing a theoretical model of Intellectual Capital with a focus on the core capabilities represents a multiphase process that allows a gradual process of disclosure associated with this concept. Change management aims to create cognitive and emotional strength, which will enable the organization to implement change and the concept of intellectual capital successfully.

3. THEORETICAL CONTRIBUTION OF THE INTELLECTUAL CAPITAL CONCEPT TO THE THEORY OF THE FIRM IN MANAGEMENT RESEARCH

Bearing in mind the foundations on which the IC theoretical model is based, in a theoretical sense, the concept of intellectual capital primarily relies on the resource-based theory of the firm. The key concept of this theory - the concept of strategic resources, resembles the traditional concept of strategic factors of production. After Barney (1991) introduced "the quick test" to determine the strategic resources, knowledge started attracting interest. It was believed that the essence of the resource-based theory is the offspring of the knowledge-based theory of the firm. However, the authors dealing with the concept of Intellectual Capital underline that in addition to having the ability to integrate, create and manage knowledge, a firm must provide the necessary infrastructure. This infrastructure involves adequate physical resources (tangible assets) and the appropriate organizational structure that will interact with intangible resources and create superior value (Ross, 1998). This is more in line with the resource-based theory. According to it, resources are those tangible and intangible assets that are permanently connected with the firm in a given period. The intellectual capital of a firm is not just knowledge (Wernerfelt, 1984). According to Ross and Ross (1997) the intellectual capital perspective provides a new and more holistic way of viewing the firm and its resources and offers a new language to talk about these resources. The concept of IC determines five resource categories that can be used as a framework for identifying all the different resources. These categories are human, organizational and relational resources on the intangible side and physical and monetary resources on the tangible side (Ross & Ross, 1997). Human resources include the knowledge, competence, relationship ability, intellectual agility and attitude of employees. Human capital involves not only knowledge in that the term means to systematize information for specific purposes and tacit and explicit knowledge. It also includes capabilities related to the structuring and systematization of competencies to perform certain activities and competencies in terms of structuring knowledge and skills and firms' generic routines. The firm does not own these resources. Organizational resources represent firms codified and articulated knowledge and experience. These resources are ownership of the firm (Komnenic, Tomic & Pokrajcic, 2011.) They include the structures, systems and processes that the firms use to support their operations. Also, this component of IC includes brands, culture, image, documented information, blueprints, and intellectual property. Finally, relationship resources embrace all external relationships, such

as customers, suppliers, media, strategic partners, and other types of alliances (Komnecic, Tomic, & Pokrajcic, 2011.). In other words, Relational capital represents the firm's ability to build quality relationships with external stakeholders: customers, suppliers, investors, the state and society in general. Relation capital resources are also not owned by the firm and are also controlled by other parties. A firm's ability to create value is increased by the cumulative nature of the intellectual capital components and their synergy. The relationship between the three essential elements of IC implies the following: human capital is not the same as intellectual capital. Human capital is the leading cause of the growth of IC. Human capital is necessary but not sufficient to explain the causes of IC growth. Human capital is causing changes in the level of organizational and relational capital. Therefore, the authors who deal with intellectual capital rely more on the concept of strategic resources and dynamic and core capabilities because intellectual capital is not just knowledge.

Besides its contribution to creating the taxonomy and the management of strategic resources from a holistic perspective, the concept of intellectual capital can fill specific gaps observed in the theory of the firm. The resource-based theory of the firm was criticized for several shortcomings (Williamson, 1999). One of them refers to a tautological argument regarding the identification of resources that contribute to value creation and business success. At least, the process of identifying resources has an ex-post character. This is because when the firm is recognized as successful, the resources responsible for its success are identified as valuable resources. If resources were observed in some other period, it is not certain that they would be evaluated in the same way (Montgomery, 1995). Also, Barney's categorization of what makes resources strategic assets opened a wide range of possibilities without imposing a rigorous framework in which it would be possible to formulate their taxonomy. The difficulty of evaluating strategic resources is related to their interaction and complementarity. Strategic resources cannot be measured separately from the specific context related to the firm. Resources have value only if they enable firms to perform activities that create advantages in specific markets (Porter, 1991). The value of an individual resource is at least in part dependent on the presence of other resources. Therefore, resources should not be analyzed individually or be taken as separate units of analysis. They should be analyzed together as a system of resources that are in mutual interaction in which they create value, while the value of resources changes over time (Foss, Knudsen & Montgomery, 1995). The resource-based theory is also criticized because it does not have a developed explicit and dynamic model for creating rent out of strategic resources and core competencies (Von Krogh & Grand, 2002). In

addition, growth and development are not explained, particularly how strategic resources encourage the firm's growth. Other objections indicate that many terms used in this theory bring confusion and, therefore, lack of consensus about definitions of knowledge and firm's capabilities and their characteristics and classifications (Foss, 1998; Bontis, 1998). Finally, the resource-based theory is criticized for focusing too much on the internal aspect of the firm while ignoring the external environment influences (Ross, 1998).

The concept of intellectual capital can compensate for some elements which the resource-based theory of a firm lacks. First, the concept of IC suggests a framework of systemic ways of identifying strategic resources. Second, it has developed a precise terminology, which classifies key capabilities within the three main components of IC, each of which has its subcomponent. Third, the concept of IC is not focused only on the firm's internal processes. Equal attention is given to the external environment that requires greater adaptability, responsiveness, and ongoing learning in an organization. As a result, the concept of IC insists that organizations should establish more robust and more intensive links with centers of knowledge to improve interactive learning abilities, as well as with business partners and inter-organizational networks, which will enable them to provide complementary assets. Fourth, the concept of IC is focused on developing mechanisms for systematic monitoring of the interaction between the resources that create value, which provides a systematic insight into the trends of the relevant processes of value creation. This is important because a conscious and systemic approach to identifying and monitoring the value creation process eliminates the risk of incorrect allocation of resources or unintended elimination of specific combinations of resources that are responsible for creating superior value for customers. Therefore, the concept of IC highlights the need to develop a conscious and systemic concept of value creation, which should result in new methods and frameworks that will contribute to a better understanding of the interdependence, dynamic exchanges, feedback effects and all the complexities that are present in the interactions of a firm's resources. Also, it is essential to follow the transformation of resources that occur in the mutual interaction of resources and outcomes and effects of those transformations. Fifth, planning and implementing growth and development strategy and change management in the direction of the firm strategic vision intent is the very essence of the concept of IC. Since the concept of IC can be seen as the network in which various interactions of resources occur that contribute to the process of value creation, it develops methods for the analysis of the interaction between strategic resources and ways in which the use of these interactions can encourage the growth of the firm. The concept of IC points out the ways firms should develop to increase their rent due to

synergy from the interaction of specific combinations of resources. Therefore, the formulation of ways of value creation itself represents a kind of strategic asset. It can be concluded that it is the main focus of the concept of intellectual capital. As far as strengthening the firm's competitive advantage is concerned, firms' ways and value creation processes are very difficult for competitors to imitate. This is in line with the assumption about the ambiguity of causal, which Derickx and Cool (1989) formulated as one of the factors that prevent competitors from imitating the strategic structure of the company and the matrix of its development because only the insiders may have access to it. Thanks to that, the outsiders cannot understand how the company built its intangible resources and how they contribute to creating value.

Specific capabilities of the firm to create and spread knowledge stems from several factors: a capability that organizations have in the creation and transfer of tacit knowledge; organizational principles based on which individual and functional expertise are structured, coordinated and reported; and the nature of the organization itself as a social-economic entity. The resource-based theory of the firm, knowledge-based theory of the firm and the concept of core and dynamic capabilities see the organization as a system of knowledge and key capabilities but do not provide a comprehensive explanation and description of this system, nor the specific mechanisms for his management. It is not enough that the firm possesses knowledge, skills, competencies, routines, processes, relationships, intellectual property, and technology. It is also necessary that firms have the ability to connect those resources in a productive and unique way into a function of value creation, which in the context of IC represent the ability to transform one resource into another. The deeper meaning of the concept of IC is the change in the behavior of people. The concept of IC introduces a new common corporate language, conveying a sense of strategy and across the entire organizational structure and providing a whole new set of values about what is good and what is bad for a firm's management. It also provides guidelines about how to create value and wealth in the new economic environment intensively based on knowledge. Since the focus of the IC perspective is on the articulation and management of the value creation process, implications of this perspective for the strategic theory of the firm is the shift of its focus from the traditionally dominant theme of developing ways of value appropriation to aiming at the process of value creation.

4. CONCLUSION

It can be concluded that the IC concept sees a firm's critical capabilities as strategically valuable tangible and intangible resources that enable the firm to

achieve strategic differentiation and competitive advantage. This concept expands and elaborates on a strategic and operative understanding of a firm's key capabilities by explaining them in detail through defined indicators (for each key capability within basic components of intellectual capital).

Defining the intellectual capital and its taxonomy, strategic and operative management of intellectual capital and assessment of its key components constitute a homogenous theoretical unity that reflects a holistic approach in creating the firm's value.

The basic theoretical contribution of the IC concept is the following: IC concept represents a detailed explanation of the concept of key capabilities and strategic resources as the focus of interest of resource-based theory of the firm and knowledge-based theory of the firm. This concept proposes an appropriate mental model of a firm that aligns with the emergence of a society and economy based on knowledge. It also provides the basis for generating information necessary for making strategic and operative decisions concerning the firm's key capabilities. The intellectual capital concept provides multiple perspectives that explain the development, measurement, and management of the firm's key capabilities. This concept points out that it is possible for a firm's management to precisely define and select appropriate key capabilities that would stimulate and support achievement in a firm's strategic objectives. Since the models of identification of key capabilities, frameworks for their classification and indicators for their measurement were developed as part of the IC concept, these approach to key capabilities improves the basis for a useful and consistent taxonomy of key capabilities. The main objective of the IC concept is to provide firms with guidelines on how to develop their key capabilities represented in their intellectual capital. The guidelines also explain how to measure their contribution and manage their growth, and find the best and most productive way to create value, considering specific qualities of their key capabilities and effects that arise from their interactions.

Concerning research on the IC concept, it has given many high-quality theoretic and empiric studies that have contributed to the general IC concept progress. However, the current development of the IC concept depends on further progress of research to pursue practical, efficient, applicable and sustainable methods of IC measurement and management. The development of better, filtered, multidimensional tools should facilitate higher practical applicability of IC measurement and management methods. So far, practical exploitation of the IC concept confirms that it is possible for a firm to define and select factors critical to the process of value creation and to understand their interactions which represent a way of value creation. This approach has concrete economic

advantages for the firm, which is proven by numerous empiric researches showing the effects of the intellectual capital management, measurement and reporting process on the increase of company's productivity, rentability, added value and profit.

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