FUNDAMENTALS OF THE RELATIONSHIP BETWEEN INTELLECTUAL CAPITAL AND INNOVATION

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Introduction

Current trends in market globalization and ever-changing economic environments create challenges for companies to enhance their competitive advantages through internally generated intangible assets that cannot be easily imitated by competitors. In this context, knowledge is the driver of company's sustainable activity [Choi & Lee, 2003].

"Knowledge" and "intellectual capital" are two vital and intangible assets that help organizations create value and wealth. Drucker (1993) argues that human knowledge leads to innovation and the transformation of the "Human Society" into the "Knowledge Society" [Karchegani et al., 2013, 561–581]. Intellectual capital is defined as knowledge that companies use for competitive advantage and includes human capital, such as the knowledge, skills, and abilities of individuals, organizational capital, processes, systems, and databases, and social capital, the interactions between individuals and between them [Youndt et al., 2004, 335–362]. Based on this view, intellectual capital stimulates the development of a firm's performance and positively affects the firm's innovation capabilities and firm's capacity performance. Theoretically, researchers propose that the components of intellectual capital – human, structural, and social or relational capital – are important factors in the creation of knowledge and innovation.

At the beginning of the second millennium, innovation is not only a source of competitive advantage, but also plays a significant role in the next wave of influence, called "collaborative advantage" [Karchegani et al., 2013, 561–581]. From this perspective, innovation offers new approaches to solving problems, responds to individual and societal needs, leads to the renewal of industrial structures, and stimulates the emergence of new areas of economic activity. The lack of a common definition of innovation is partly due to its multidisciplinary origins and therefore influences innovation and management theory. Lundvall defines the elements and relationships that interact in the production, dissemination, and use of new and economically useful knowledge [Muradyan, 2023, 86-97]. Considering the latter, the study of concepts of intellectual capital and innovation, the identification of interrelationships is relevant. In relation to the above, this article will discuss the components of intellectual capital that drive innovation.

Methodology

In the framework of the research work, an analysis of theoretical material was performed, such research methods were used as content analysis of the works of the authors

who carried out a field study, documents, that present the characteristic features of intellectual capital and innovations, the need to observe their interrelationships, the concept of intellectual capital and its component elements are reviewed, they are considered in the context of the formation of innovation, and the feedback effect of innovation on intellectual capital is also considered, The comparison method is used in the section on the interactions between intellectual capital and innovation, which made it possible to present the basics of the interactions between the two concepts. The analysis method was used in the conclusion section, where the positive relationship between the two concepts is presented, by which it is recommended that companies develop and manage intellectual capital to increase company's innovation as a competitive advantage generator.

Literature review

The presentation of the sub-components of intellectual capital has been discussed by various researchers, the information in this article is based on foreign sources, in which the characterization of the sub-components of intellectual capital is presented [Wu and Sivalogathasan, 2013, 139-144]. The article presents the most common approach to the division of intellectual capital components, by which the authors divide intellectual capital into human, structural and relational sub-components [Bratianu, 2014, 5-7]. Also, apart from the three-component model, another point of view is presented, which adds spiritual capital to the components of intellectual capital [Karchegani et al., 2013, 561].

Introducing the concept of innovation, it is presented in the context of creating a competitive advantage [Amidon, 2003, 3-18]. The presented authors refer to individual concepts, their structure and features, our studies allowed us to present the connections between these concepts, the importance of their relationships.

Scientific novelty

In this article, the nature of dynamic developments and trends in the management of intellectual capital and implementation of innovations has been revealed, based on the inevitable necessity of economic developments**.**

Analysis

Intellectual capital. The most common definition of intellectual capital defines this concept as shared knowledge and capabilities that an organization can use to gain a competitive advantage [Wu and Sivalogathasan, 2013, 139-144]. It defines intellectual capital as the collective stock of knowledge, information, technology, intellectual property rights, experience, organizational learning and competence, team communication systems, customer relationships and brands capable of creating value for a company. The components of intellectual capital consist of human capital, structural capital and external (customer) capital. Human capital according to Schultz is defined as a key element of improving the company's assets and employees to increase productivity as well as to maintain competitive advantages. Human capital refers to processes related to training, educa-

tion and other professional initiatives to increase the level of knowledge, skills, abilities, values and social assets of an employee [Schultz, 1993, 13-19]. Structural capital includes all non-human repositories of knowledge in organizations, including databases, organizational charts, process manuals, strategies, etc.

Customer capital is also called relational capital and external capital. Refers to an organization's relationship or network of associates and their satisfaction and loyalty to the firm [Kalkana, Bozkurtb, Arman, 2014, 700 – 707]. *Spiritual capital* was also added as a fourth component to the presented classification by Gillett (2002) and Ismail (2005). The authors divide intellectual capital into the following types. Human capital is the knowledge that employees take with them when they leave the company.

- It includes people's knowledge, skills, experience and abilities;
- Some of this knowledge is unique to an individual, some may be general.

Structural capital is the knowledge that remains within the company at the end of the working day. It includes organizational procedures, systems, cultures, databases, etc.

Relative capital includes that part of Human and Structural Capital that is involved in the companies relationship with stakeholders investors, lenders, customers, suppliers, etc., plus the perceptions they have about the company.

Mental capital – tacit knowledge, belief, emotions embedded in the minds of individuals in an organization's employees that have a general impact on enterprise performance [Karchegani et al., 2013, 561–581].

Intellectual capital can be seen as a primary learning tool for an organization, influencing the ability to acquire new knowledge. There are dynamic and complex relationships between aspects of intellectual capital, and looking at any one of these subcategories in isolation inevitably leads to an incomplete account of company's intellectual capital.

Innovation. At the beginning of the 21st century, frequent studies have been conducted on organizational innovation. The results of these studies have shown that innovation is a necessary element for sustainable organizational performance. Innovation has been recognized as an important driver of economic growth and typically enables organizations to offer better-quality products and services at lower prices. Furthermore, innovation not only creates competitive advantage in organizations but also collaborative advantages. The author suggests 5 main stages in the process of knowledge innovation. They include:

- Product as an asset,
- Project as an asset,
- Company as an asset,
- The customer as an asset,
- Knowledge as an asset [Amidon, 2003, 3-18].

Outlining the early quantitative view of organizational innovation and building on their definition, organizational innovation involves a process that involves the creation, development, and implementation of new ideas or practices in organizations. However, a view

emerged that the focus presented by this definition is not complete, as it is limited to organization-level variables and their impact on organizational innovation. The relationship between these antecedents and innovation has remained relatively stable across multiple studies and contexts. Innovation was defined as the implementation of production and delivery processes with newer and relatively better quality [OECD, 2005].

In this direction, it was suggested that innovation includes not only different types of activities but also requires continuous improvement in the application process. This includes learning activities that are essential for effective work in a technological system [Ngoc Ca, 2009, 219-261].

To make the concept more actionable, the OECD suggested that the novelty of innovation should be considered by companies. Innovation can be considered a complex phenomenon, including technical and non-technical aspects, as well as product innovations and process innovations.

The relationship between intellectual capital and innovation. Innovation is defined as the ability to create new and useful knowledge based on prior knowledge. Innovation capability is the comprehensive set of organizational characteristics that facilitate and support innovation strategies.

Expanding the definition, considering that innovation capability is a higher-order integration capability, it can form and manage various key organizational capabilities and resources that successfully promote innovation activities. Knowledge creation means intellectual capital, applying acquired knowledge for commercial purposes. It refers to the ability to use acquired knowledge to find new, improved ways to create organizational value or improve operational efficiency [Zahra and George, 2002, 185-203].

The knowledge creation perspective has parallels with what has been defined in the literature as incremental innovation. Incremental innovations improve and strengthen output products, services, and processes, typically using the company's existing knowledge base. The ability to innovate has a significant, positive effect on organizational performance. It is also possible that the effectiveness of one aspect of intellectual capital may depend on the effectiveness of another so that different aspects of intellectual capital operate synergistically. Burt argues that the value of human capital is meaningless without social capital. Also, previous research shows that human capital interacts with social capital to influence innovation capabilities, but without social capital, human capital alone does not work. This synergistic idea states that unless individual knowledge is networked, shared, and channeled through relationships, it provides little benefit to organizations in terms of innovative capabilities. A firm's ability to develop and apply its expertise and knowledge is strongly related to its intellectual capital [Wu and Sivalogathasan, 2013, 139-144].

Human resource theorists have concluded that intellectual capital leads to innovative creativity, which in turn plays a significant role in influencing firm performance.

Considering the combined effect of intellectual capital on innovative capabilities and firm competitive advantage, it can be concluded that it should be mediated by organizational motivation. An organization's intellectual capital, which consists of its human, social, and organizational capital, is likely to mediate the effects of organizational motivation, which in turn influence innovation capabilities. Although motivation itself may lead to higher levels of innovative capacity, its actual impact may depend on the extent to which some individuals can use the acquired knowledge, organizational norms to share knowledge within the organization.

Teamwork has a powerful direct relationship with innovation effectiveness. Human capital is a key "individual" factor that mediates the effectiveness of innovation through teamwork. Effective teamwork is associated with better organizational performance, especially with creative and innovative ideas [Karchegani et al., 2013, 561–581].

Conclusion

Summing up, it becomes clear that intellectual capital and innovation have a symbiotic relationship, each influencing the other. Intellectual capital refers to a company's intangible assets, including knowledge, experience, skills, patents, trademarks, and organizational processes. Innovation, on the other hand, involves the creation and implementation of new ideas, products, processes or services that bring about positive change.

Here's how they're related.

1. Intellectual capital as the basis of innovation. Intellectual capital serves as the foundation upon which innovation develops. The company's knowledge, experience and insights are essential for generating new ideas and solving problems creatively. This combination provides a fertile ground for creativity and problem-solving, driving the development of new ideas, products, and services.

2. Innovation strengthens intellectual capital. when firms innovate, they often develop new knowledge, technologies, or processes that contribute to the development of their intellectual capital. The relationship between intellectual capital and innovation is reciprocal: while intellectual capital serves as a foundation for innovation, the process of innovating also enhances and expands a company’s intellectual capital.

3. Intellectual capital facilitates knowledge sharing and cooperation. effective intellectual capital management encourages knowledge-sharing and collaboration among employees. This exchange of ideas fosters a culture of innovation within the organization, where individuals can build on each other's knowledge to develop innovative solutions.

4. Innovation protects intellectual capital. In a competitive market, companies must continuously innovate to stay ahead. By developing new products, services or processes, they protect their intellectual capital from becoming obsolete or depreciating over time

innovation plays a critical role in protecting intellectual capital by keeping skills and knowledge current, enhancing competitiveness, creating and defending intellectual property, retaining knowledge, strengthening organizational processes, and enhancing employee engagement. By fostering a culture of continuous innovation, companies can safeguard their intellectual capital and maintain a sustainable competitive advantage.

5. Value creation. Both intellectual capital and innovation contribute to the value creation of organizations. Intellectual capital provides the resources and capabilities needed to innovate, while innovation transforms those resources into new and improved products, services, or processes, ultimately creating value for customers and stakeholders.

By realizing and understanding the importance of intellectual capital and innovation, companies can improve their competitive advantage. It demonstrates the importance of the relationship between IC components and innovation, and the importance of investing and managing these capitals in organizations. Therefore, companies need to preserve, protect, develop and manage intellectual capital to enhance organizational innovation as a competitive advantage generator for the company.

Ensuring interactions between human capital and innovation at the state level can improve the efficiency of several areas of government activity: In developing countries, such as Armenia, it is important to create an innovation investment environment. The interrelation of these two concepts in the states has a more complex systemic nature, both for the creation of interactive connections and for ensuring cooperation.

Based on the conducted study, we suggest fundamental points for the development of Armenia practice of interaction of innovation and human capital, which will contribute to the increase of efficiency.

- Investments in education. Armenia should prioritize education and skills development. By investing in quality education, Armenia can develop a highly skilled workforce that can drive innovation.
- Investing increasing resources in research activities in both public and private sectors. The establishment of research institutions, the promotion of cooperation between academia and industry can contribute to the growth of innovation and intellectual capital.
- Create an enabling environment for entrepreneurship and innovation by offering support programs, mentoring and access to funding for startups and small businesses.
- Strengthen intellectual property (IP) protection. Expand IP laws and enforcement mechanisms to protect the rights of innovators and creators. A strong IP framework encourages investment in innovation by ensuring that intellectual assets are protected.
- Increase collaborative networking opportunities in the innovation ecosystem by organizing events, workshops and conferences. Encourage knowledge sharing, partnerships, and interdisciplinary collaboration by fostering the generation of creative ideas.

- Creation of technology transfer and knowledge exchange mechanisms between research institutions, universities and sectors.
- Develop supportive policies and initiatives at the government level to incentivize innovation and intellectual capital development. This can include tax incentives, grants, subsidies, and regulatory reforms aimed at promoting innovation-driven growth.
- Promote a culture that values innovation, creativity, and continuous learning. Encourage risk-taking, experimentation, and openness to new ideas. Recognize and celebrate innovators and their contributions to society.

In summary, we can say that the above will be possible to implement with the consistent support of the government, developing supportive policies and initiatives at the government level, promoting innovation and intellectual capital development. This can include tax incentives, grants, subsidies and regulatory reforms aimed at innovation-driven growth.

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Current trends in market globalization, ever-changing economic environments create challenges for companies to increase their competitive advantages through internally generated intangible assets, in order to gain advantages in competitive market conditions, the study of intellectual capital and innovation as competitive differentiating factors becomes relevant. Taking into account the latter, the study of the concepts of intellectual capital and innovation and the identification of their interactions becomes relevant. In relation to the above, this article discusses the components of intellectual capital that promote innovation. The purpose of the article is to present the collaborative foundations and effects of innovation and intellectual capital. The article examines the concept of intellectual capital and its component elements, considers the localization of their sub-components in the context of innovations. In this article, the nature of dynamic developments and trends in the management of intellectual capital and implementation of innovations has been revealed, based on the inevitable necessity of economic developments. It is becoming clear that intellectual capital and innovation have a symbiotic relationship, each influencing the other. Intellectual capital refers to a company's intangible assets, including knowledge, experience, skills, patents, trademarks, and organizational processes. Innovation, on the other hand, involves the creation and implementation of new ideas, goods, processes or services that bring about positive change.In the framework of the research work, an analysis of theoretical material was performed, such research methods as content analysis of documents, analysis method were used. Conducted studies allow us to draw conclusions, the positive organization of intellectual capital and innovation interactions is an important necessity, which at the same time gives a competitive advantage.