

**ECONOMICS AND BUSINESS ADMINISTRATION FACULTY
VILNIUS UNIVERSITY**

STUDY PROGRAMME OF GLOBAL BUSINESS AND ECONOMICS

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MASTER THESIS**

TARPTAUTINIŲ KOMPANIJŲ INTELEKTINIS KAPITALAS	INTELLECTUAL CAPITAL OF INTERNATIONAL COMPANIES
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Date of submission of Master Thesis:

Ref. No.

Vilnius, 2020

TABLE OF CONTENTS

INTRODUCTION	6
1.THEORETICAL ANALYSIS OF INTELLECTUAL CAPITAL AND MANAGEMENT OF INTELLECTUAL CAPITAL	8
1.1. Definitions of Intellectual Capital	8
1.2. Components of Intellectual Capital	10
1.2.1. Human Capital	11
1.2.2. Structural Capital	15
1.2.3. Customer Capital	17
1.3. Components of Intellectual Capital from Management Perspective	19
1.3.1. Human Capital	19
1.3.2. Internal Capital	20
1.3.3. External Capital	22
1.4. Management of Intellectual Capital	22
1.4.1. Models of Intellectual Capital Management	22
2.INTELLECTUAL CAPITAL EVALUATION RESEARCH METHODOLOGY	28
2.1. Intellectual capital evaluation research methodology	28
2.2. Organization description	32
2.3. Respondents of the written questionnaires	33
3.INTELLECTUAL CAPITAL MANAGEMENT EMPIRICAL RESEARCH RESULTS ANALYSIS	35
3.1. Human resource managers results analysis	35
3.2. Executives of organization results analysis	42
3.3. Intellectual capital management solutions	49
CONCLUSIONS	52
RECOMMENDATIONS	54
LIST OF REFERENCES	55
SUMMARY IN LITHUANIAN	59
ANNEXES	61
Annex 1. Questions for employees of Human Resource Development department	61
Annex 2. Questions for Executives of organization	62
Annex 3. Answers of Respondent HR1	63
Annex 4. Answers of Respondent HR2	65

Annex 5. Answers of Respondent HR3	66
Annex 6. Answers of Respondent HR4	68
Annex 7. Answers of Respondent HR5	70
Annex 8. Answers of Respondent HR6	72
Annex 9. Answers of Respondent EC1	74
Annex 10. Answers of Respondent EC2	76
Annex 11. Answers of Respondent EC3	78
Annex 12. Answers of Respondent EC4	81
Annex 13. Answers of Respondent EC5	83
Annex 14. Answers of Respondent EC6	87

THE LIST OF TABLES

Table 1. Intellectual capital definitions.....	8
Table 2. The research ethics principles.....	31
Table 3. The respondents of Human Resource Development department.....	33
Table 4. The respondents of the organization management.....	34
Table 5. Intellectual capital concept evaluation.....	35
Table 6. Intellectual capital concept description.....	43

THE LIST OF FIGURES

Figure 1. Intellectual capital structure.	11
Figure 2. Intellectual capital elements.	13
Figure 3. The human capital structure.	15
Figure 4. Human capital components.	20
Figure 5. The components of internal capital.	20
Figure 6. Intellectual capital evaluation scheme.	23
Figure 7. Intellectual capital evaluation methods classification scheme.	24
Figure 8. Marr model of intellectual capital management.	25
Figure 9. The research cycle.	29
Figure 10. Intellectual capital affect company activities.	37
Figure 11. Human capital impact to organization.	38
Figure 12. Human capital training programs.	39
Figure 13. Intellectual capital management and evaluation models.	41
Figure 14. The competition level in market.	42
Figure 15. The resources in organization.	44
Figure 16. Human capital description.	45
Figure 17. Human capital influence elements.	46
Figure 18. Intellectual capital management model.	50
Figure 14. The competition level in market.	42
Figure 15. The resources in organization.	44
Figure 16. Human capital description.	45
Figure 17. Human capital influence elements.	46
Figure 18. Intellectual capital management model.	50

INTRODUCTION

Innovation and creation of new products, goods, services, methods of manufacturing and etc. are base of economic development and growth of overall well-being of all the members of society. Innovations are very important as they help to make our life easier, solve issues, such as cure diseases, also innovations are important as a creative representation of people's mind and ability to make things.

For business innovations and their application are essential part of growth. Company's ability to innovate, increase intellectual capital, come up with new ideas on how the processes should be implemented, introduction of the new products or services into the market are necessary to create a competitive advantage to other market players.

Increasing competition in the market encourages companies to take measures to promote the efficiency of non-traditional companies, which could not only help to establish themselves in today's market, but also ensure a long-term competitive advantage. The concept of intellectual capital is a relatively new, although the theoretical foundations of intangible resources have existed for many years, but intellectual capital management models are not widely analyzed. Intellectual capital is an intangible asset with the potential to create value and contribute to the ability of companies to remain market leaders in the long run. However, there are challenges as the issue of valuing intellectual capital and its impact on business efficiency remains sensitive not only nationally but also globally. Consensus on the valuation of organizations' intellectual capital is an important area for future research at both theoretical and empirical levels. According to R. Bailoa (2017) in increasingly competitive markets, where it is mandatory to innovate constantly, the value of products and services seems to depend more and more on the percentage of technology, knowledge and intelligence embedded in them. Given this reality, intellectual capital should be considered a strategic resource and the ability to manage it, a key factor for success. E. Claver – Cortes, P. Zaragoza – Saez (2018) outline that in the context of globalization processes, the most important economic factor is not material resources (financial, etc.), but human capital, the components of which are skills, knowledge and abilities. Constantly evolving and completely new technologies highlight the growing need for skilled, competent and educated employees. For these reasons, human capital and intellectual capital are becoming important determinants of successful societal development, business growth and internationalization of international companies.

Most scientists and researchers address issues such as: what constitutes a company's intellectual capital; what are the components of the company's intellectual capital; what is the role of these components in creating market value; how the value of the company's intellectual capital

is determined, etc. It is stated that the company's intellectual capital is the main precondition for successful and efficient economic activity. The company's intellectual capital management models are becoming more complex and more widely used in international companies. However, the link between companies' intellectual capital management and international company remains the subject of further scientific discussion.

The relevancy of this topic is the importance and impact of the intellectual capital management in the value creation process of international companies. The aim of the thesis is to determine how intellectual capital is managed in „TELTONIKA IoT GROUP“ companies (6 companies in Lithuania and 18 companies abroad) and prepare recommendations and proposals for using intellectual capital as additional effective resource of value creation.

The problem of the paper: How intellectual capital and its management is used in practice for creating value in international companies?

The aim: after analyzing the scientific approaches to the company's intellectual capital and developing a model for assessing the intellectual capital management in international companies, to determine the intellectual capital management recommendations.

The main tasks are:

1. to analyze definitions and components of intellectual capital of international companies,
2. to examine components of intellectual capital from management perspective and determine models of intellectual capital management,
3. to investigate the importance of intellectual capital management in „TELTONIKA IoT GROUP“ companies,
4. to prepare recommendations and proposals for the future practical integration of intellectual capital as organizational resource in a long-term strategy of „TELTONIKA IoT GROUP“ companies.

The methods are used - scientific literature, publications and articles analysis, semi-structured interview with the Executives of „TELTONIKA IoT GROUP“ companies, semi-structured interview with the employees of Human Resource Department of „TELTONIKA IoT GROUP“ company.

The structure of the paper: the paper is composed of three main parts. First part is dedicated to theoretical analysis of intellectual capital. In the second part of the paper the methodology and the structure of the investigation is defined. Finally, in the last part of this paper, investigation on intellectual capital is carried out and conclusions presented.

1.THEORETICAL ANALYSIS OF INTELLECTUAL CAPITAL AND MANAGEMENT OF INTELLECTUAL CAPITAL

1.1. Definitions of Intellectual Capital

The concept of intellectual capital was first mentioned by John Kenneth Galbraith. He thought that intellectual capital means more than “pure intelligence,” but to a certain degree of involvement in “intellectual action,” and in this case, intellectual capital is not simply an intangible asset but an ideological process (Tamosiunaite Dementjeva, 2012). This is one of the interpretations of the concept.

The origin and evolution of intellectual capital as an economic category are well reflected in contemporary literature. Intellectual capital, like all problems of knowledge management (intangible or implicit assets), has deep historical roots, dating back to the early twentieth century. Already in the 20-ies of the XX century in the overall structure of the company's assets, some of the above researchers identified intangible assets, referring to them such assets as knowledge and business reputation, and in a number of modern studies highlighted the special importance of intangible assets in the possession of employees (Gurieva, 2020).

Other authors present different interpretations of intellectual capital with different definitions of the intellectual capital concept itself, but all equally emphasize the importance of knowledge for the benefit of the organization. The difference in definitions is visible only from the selected concepts, but not in their semantic content. Some definitions of intellectual capital are provided in the table below (Table 1).

Table 3

Intellectual capital definitions

Authors	Definition
Znakovaite, Pabedinskaite, 2010	Intellectual capital is intellectual information that consists of knowledge, experience, intellectual abilities that are used to create the well-being of the organization.
Ahmadi, Parivizi, 2012	Intellectual capital is identified as the most important capital in any organization that can affect all aspects of an organization’s operations.

Table (continued)

Wiagustini, Artini, 2019	Intellectual capital cover 3 main things: everything that is known in organization that can provide excellence, knowledge, information, experience, intellectual property.
Dumay, 2016	Intellectual capital is intellectual material - knowledge, information, intellectual property, experience. Which can be used to create wealth, the collective mobilization of intellectual capacity.
Dameri ir Ricciardi, 2015	Intellectual capital is a system made up of different capitals that include: employees, organizational processes, intellectual property, and relationships with customers, suppliers, distributors, and partners.

Source: formed by author according the analyzed authors' opinions.

Analyzing the definitions of intellectual capital it could be stated that provided definitions differ, the general approach of the authors to this capital is noticeable. The authors unanimously define intellectual capital as an information and knowledge-based intangible asset that benefits an organization. This capital can be used to create wealth, the collective concentration of intellectual abilities. Ahmadi, Parivizi (2012) identify intellectual capital as the most important capital in organization. As well all the authors use the same words (information, knowledge, intangible resources) to describe intellectual capital.

Intellectual capital, as a new factor in the development of the economy of companies, has several features that make it unique. These features include the following (Pirogova, Voronova, 2020):

- ✓ intangible assets that form the basis of intellectual capital, unlike physical assets, do not have a material embodiment, which means certain mechanisms are required for their effective use;
- ✓ the elements forming intellectual capital have “partial exclusion”, which means there is an absence of mechanisms for complete control as well as for ensuring certainty and the protection of the company’s intellectual capital property rights, which leads to the problem of accounting for these assets in corporate balance sheets;
- ✓ non-marketability of elements of intellectual capital, which is due to their practical lack of tradability in the markets, and, as a consequence, the lack of a basis for assessing these elements, incomplete rights to these intellectual assets as well as high market asymmetry

(this factor also causes a higher vulnerability for companies with a high intellectual capital).

Summarizing the analyzed scientific literature, it can be stated that researchers provide different descriptions of human capital, the components of human capital content are repetitive - knowledge, certain innate qualities, acquired and developed skills and abilities, education, competencies, experience, learning and creativity (innovation). It should be noted that intellectual capital is usually described as a set of skills and certain characteristics that increase employee productivity, which also includes many of the components already mentioned. However, education is often emphasized as an essential component of intellectual capital.

1.2. Components of Intellectual Capital

Various scientists and researchers have analyzed intellectual capital components. Ramirez (2007) divided the structure of intellectual capital into human, structural and clients capital, while Susana (2012) delved deeper into the components of intellectual capital - eWOM (electronic word of mouth) - information disseminated by consumers online, which has an impact on business efficiency. Huang and Lord (2011) divide the structure of intellectual capital into green human, green structural, and green client's capital. Macerinskiene, Bartuseviciene (2012) perceived intellectual capital through the prism of human and organizational capital, arguing that customer capital is nothing more than a component of human capital. And organizational capital can change structural, as it is closely linked to the mechanisms of the organization, which are designed to help employees optimally perform the tasks assigned to them, which later become intellectual capital. In summary intellectual capital structure could be described as in figure bellow (Figure 1).

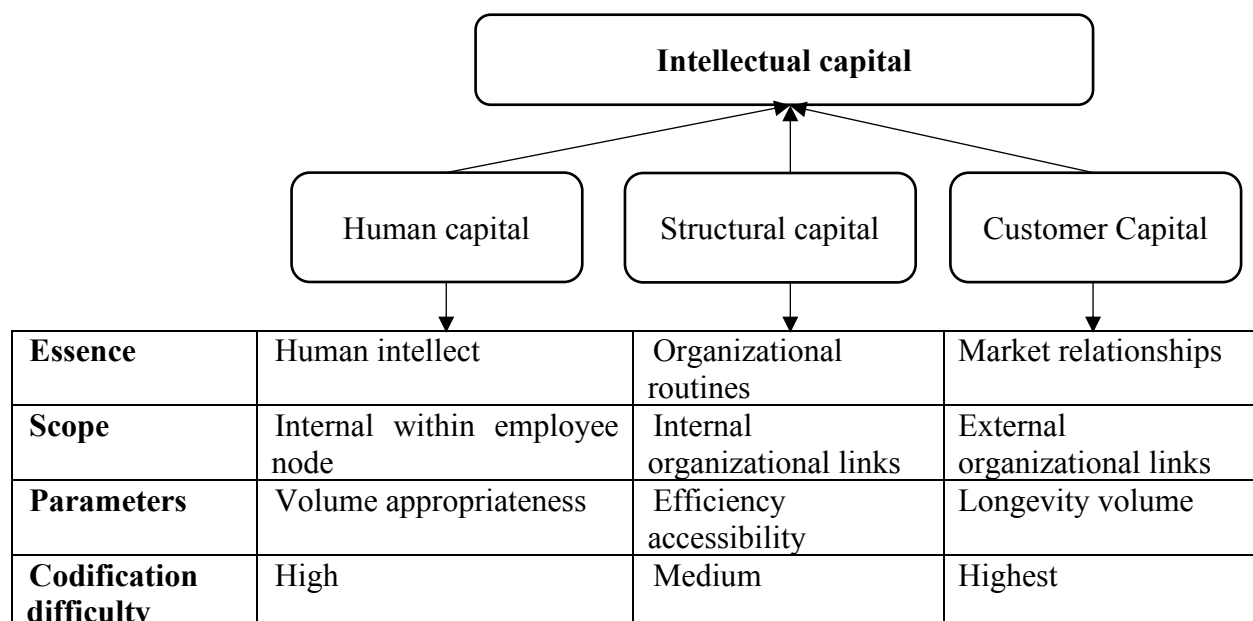


Figure 1. Intellectual capital structure.

Source: Wiagustini, Artini, 2019.

Figure 1 explains that the main component of intellectual capital consists of 3 main components: 1) human capital, 2) structural capital and 3) customer capital with the essence, scope, parameters and difficulties of codification, each different but functioning as the main component of intellectual capital and correlate with one another.

Claver – Cortes, Zaragoza – Saez (2018) outline that in practice, intellectual capital components are related and attention must be paid to their articulation when designing and executing strategies aimed at strengthening them. In other words, the identification of intellectual capital dimensions does not mean that management has to be undertaken separately. The fact that the combination described above leads the organization to develop capabilities and skills for the purpose of taking advantage of the opportunities which create value for the company.

1.2.1. Human Capital

Most scholars in their study of human capital have focused on human capital analyzed at the individual level. On the other hand, the analysis of human capital has recently begun in groups of employees, departments, or even the entire organization (Ployhart et al. 2014). In the scientific literature, human capital is distinguished as follows: general and specific human capital specific only to that company. For example, education is classified as gross human capital, and work experience or time spent in a particular organization is considered to be specific human capital attributable to that organization (Chowdhury et al. 2014). Researchers allocate human capital resources not only by level (company, group or individual), but also by content, which consists of: skills, education and health care. It can also be grouped according to the theoretical structure (individual knowledge, skills, abilities, resources and other characteristics) and the relationship with the results, e.g. value creation (Ployhart et al. 2014). Human capital is inseparable from the individual and shows the knowledge and skills acquired by the individual over time. Since the essence of intellectual capital is knowledge, it can be said that intellectual and human capital are closely related. The organization achieves the set goals in order to achieve certain results (Ployhart et al. 2014). However, employees with higher human capital (e.g., higher levels of education, experience, etc.) help the organization achieve the desired result more efficiently and productively (Chowdhury et al. 2014).

Human capital encompasses the knowledge and skills of individuals. Schultz was one of the first scientists to identify the importance of the economic value of human resources. According

to him, education and other investments in human capital increase productivity in various spheres. Human capital encompasses collective knowledge, skills, and the ability of individuals to work in organizations that develop as a result of the knowledge and skills provided to them to adapt to new situations (Macerinskiene, Bartuseviciene, 2012).

Bailoa (2017) states that people (human capital) create the knowledge they share, use and diffuse (relational capital), which is finally institutionalized and codified by companies (structural capital). Among these categories, human and relational capital are transitory in organizations, since they do not have the permanence of structural or organizational capital, namely because they can move easily to other companies, so an important challenge in the management of intellectual capital is the transformation of human and relational capital in something more permanent as the structural capital.

Wiagustini, Artini (2019) describe human capital as an organizational asset, human capital empowerment must be optimized in such a way, because it can make employees aware of their potential both individually and in groups, so as to position themselves as strategic assets in achieving organizational goals. The uniqueness of human capital assets shows that management is different from other assets because human capital has a ratio (mind, mind), taste (feeling, desire, drive), and intention (skills, power, work) where the potential of these resources greatly influences the efforts of the organization / organization in achieving goals.

Vaicekauskaite (2014) outlines that human resources (or employee capital) include individuals' knowledge, competencies and skills. This is the so-called inexpressible knowledge. It is estimated that about 90 percent of all the knowledge that an individual has is manifested in the form of tacit information, so it is important for organizations to increase their tacit knowledge in order to increase their effectiveness. Organizations should pay sufficient attention and investment to employee qualifications - encourage them to improve. Human resources include their values and culture.

Human capital creates structural capital, and the quantity and quality of relation capital also depends on structural and human capital. Connecting intellectual capital parts interact and form the ecosystem of an organization on which the value created by the organization depends. In practice, one of the areas is dominant depending on the specifics of the company or the sector in which it operates (Shakina and Barajas, 2014). Figure 2 shows the elements belonging to different intellectual capital types. Researchers emphasize different elements, but their importance is influenced by the characteristics of organizations and the nature of their activities.

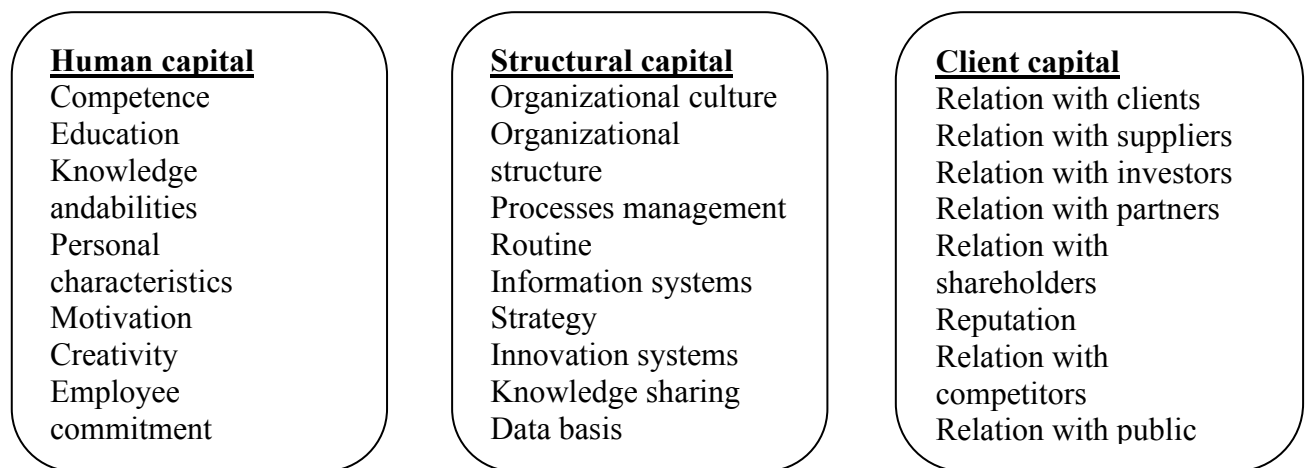


Figure 2. Intellectual capital elements.

Source: Shakina, Bajasas, 2014.

Human capital is mentioned most often and least differences are found when analyzing the opinions of different scholars. It is almost unequivocally agreed that human capital is one of the intellectual capital components. Human capital plays a particularly important role in organizations and its management is more advanced than in manufacturing companies (Will and Mertins, 2013). Human resources include individuals' knowledge, competencies, skills, and education (Melloni, 2015). It is capital that is not the property of the company, as it does not remain in the company when employees leave. Most often, human capital embodies tacit knowledge in the minds of employees (Macerinskiene and Bartuseviciene, 2012). Scholars emphasize three core values of human capital: employee competence, attitude and creativity. In order to manage this type of capital, the cost of staff competencies must be described as an investment, not a cost, as this investment yields a return in the long run. Often, organizations do not value human capital as a type of intellectual capital, but its characteristics such as age, gender, education of employees, which does not necessarily influence employees' competencies, attitudes, or creativity. It is important to assess that human capital does not in itself create added value for the organization, but the targeted use of human resources creates structural and communication capital, which interact to create value in the organization (Tamosiunaite et al., 2012).

Human capital is known as resources that cannot be replaced by equipment or machinery in an organization. It includes knowledge, desired skills, motivation, and organizational management. Analyzing the authors' statements, it can be concluded that human capital is a key element of intellectual capital and is one of the most important resources for the industry, which is related to software development, management consulting, financial services. Ahmadi, Parivizi

et al., (2012) believe that the main source of a company will be human capital composed of smart and career-seeking employees.

Giziene (2012) agrees with Ahmadi and Parivizi, stating that human capital includes the skills, talents and knowledge of an individual. Because consumption is the ultimate goal of an economic system, the value of an individual's human capital is the same as the value of the consumer goods and services it produces, directly or indirectly. As the value of goods and services increases, so does the value of human capital, and vice versa. The broader definition of human capital includes knowledge, skills, competencies, personal characteristics of an individual, which help to achieve the set goal, career - improves personal, social, economic well-being. According to Malik (2012), human capital consists of employee opportunities, satisfaction, and sustainability. Employees' professional competencies, social competencies, leadership qualities are related to the company's human capital, which reflects the company's activities.

Summarizing the authors' works on the concept of human capital, it can be concluded that the concept of human capital is also relevant to the innate and acquired human skills in the context of employees of the company. The innate and acquired abilities of an individual form the components of human capital, which the authors name differently. Human capital consists of (Tamosiunaite, Dementjeva, 2012):

- ✓ employees' knowledge, skills, attitudes, motivation, flexibility, experience, work efficiency, loyalty, competence, etc.
- ✓ individual knowledge, skills, competences and personal qualities.
- ✓ the knowledge, skills, experience and creativity of the people in the organization.
- ✓ short-term knowledge and skills.
- ✓ knowledge, skills, abilities and their impact on strategic capabilities.
- ✓ skills, know-how, competence.

Summarizing the authors' opinions on the structure of human capital, it can be concluded that it consists of the following main elements: (a - acquired) knowledge (education), skills (competence); (b - innate) creativity, personal qualities (Figure 3).

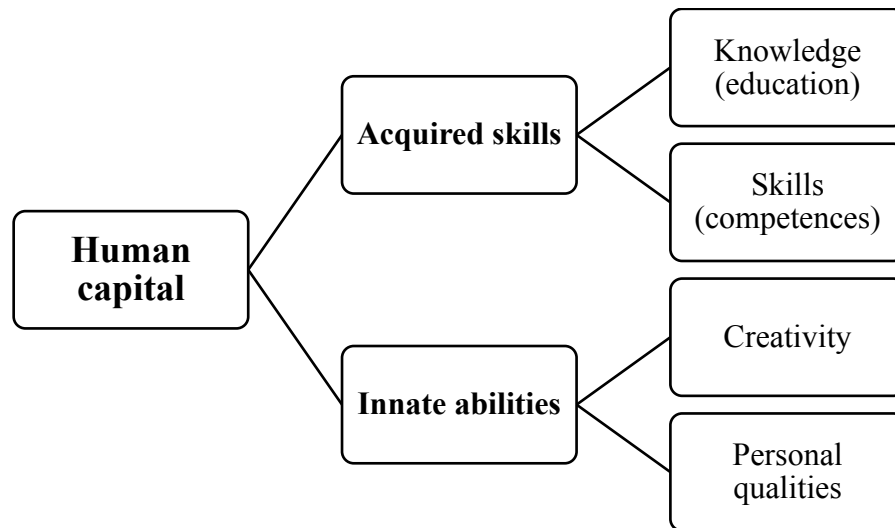


Figure 3. The human capital structure.

Source: formed by author according the analyzed authors' opinions.

Analyzing the provided structure of human capital, it can be stated that human capital consists of 2 levels. The first level is the acquired skills. The development of these skills is already based on education, but again it is not homogeneous. Acquired skills are partially formed from an early age (human capital formation in the family) and partially formed during vocational training (human capital formation in education structures). The innate abilities consist of person's creativity and also personal qualities. Human capital itself can be the factor that creates the conditions to adjust the subject's attitude to the process of knowledge acquisition in one way or another.

Summarizing the concept of human capital, it can be stated that human capital reveals that each individual in an organization differs in its productivity, that the quality of work depends on the education, qualifications and experience acquired by each employee. Using time to acquire education, as well as to increase one's productivity and income in the future, invests in human capital not only for the employees themselves, but also for the whole organization to maintain or increase the existing level of human capital.

1.2.2. Structural Capital

Structural capital is a significantly less analyzed than human capital, so this concept is much more complex than human capital. Structural capital in some cases is defined as organizational capital, while other authors (Huang and Wu, 2010, Znakovaite, Pabedinskaite, 2010) identify organizational capital as a component of structural capital.

Structural capital consists of (Tamosiunaite, Dementjeva, 2012):

- ✓ networks - infrastructure used for knowledge exchange. It is that part of the structural capital in which all the knowledge of the organization is stored and which can be accessed by all employees of the organization.
- ✓ knowledge management is the management of the quality of information and the ways in which information is stored and used, with the aim of making the most efficient use of available knowledge.

Structural capital includes a company's organizational culture, management strategies, organizational processes, systems, and information resources required to maintain an intellectual capital management system (Banevene, 2010).

There are several definitions of structural capital in the scientific literature (Macerinskiene, Bartuseviciene, 2012):

1. structural capital includes all the mechanisms and structures of enterprises that can help employees to implement the result of intellectual work more effectively, which later contributes to the optimization of the activities of the entire organization;

2. structural capital is what remains when employees leave their jobs - technologies, processes and systems.

Structural capital is property that is not self-renewable, both human and relational capital help to increase authorized capital. This type of intellectual capital includes products, information, systems, competitive intelligence, formulas that a company has developed over time. Ahmadi, Parivizi (2012), claims are more categorical with respect to structural capital, arguing that structural capital is a key element of intellectual capital that includes intellectual capital, cultural capital, innovation, processes, and capital innovation and development. Such capital belongs to the organization and by supporting human capital creates a good foundation for better employee performance.

Structural capital is defined as a routine part of an organization and mechanisms designed to help employees perform their tasks (Macerinskiene and Bartuseviciene, 2012). The essential function of structural capital is to help employees perform their work optimally and help other resources to become intellectual capital. This capital often has a certain material form as e.g. databases, process descriptions, documents and are created jointly by employees so that everyone has access to the necessary information. Unlike human capital, it remains in the organization when employees leave home. Melloni (2015) argue that structural capital includes: culture, organizational structure, organizational learning, business processes, firm routine, information systems, management strategy, and its mechanisms. Some researchers emphasize the innovation process as one of the most important parts of structural capital (Kalkan et al., 2014). Although employees may have the necessary competencies, if the company's infrastructure is

underdeveloped, they will not be able to use them to create value and intellectual capital will not be fully enabled (Macerinskiene and Bartuseviciene, 2012).

Other authors analyze structural capital as the capital of an organization which is the ability of an organization to fulfill the organizational routine process as well as its structure in supporting employee efforts to produce optimal intellectual performance and overall business performance. As well the structural capital could be considered as mechanism and structure that is owned by an organization so that employees can optimally elaborate their individual human beings in order to achieve the best work performance of employees in seeking the best performance of the organization. Structural capital can be distinguished from technology components and architectural competencies. Technology component is the organization's ability to complete work routines according to the level of human capital ability in building unique and efficient cooperation (Wiagustini, Artini, 2019).

Summarizing the theoretical analysis of structural capital, it was found out that this capital consists of three main parts: organizational culture, processes and procedures, intellectual property. These are further divided into company values, social capital, formal processes, management processes, brands, information, etc. This capital also has a direct impact on the skills of employees, increasing the level of employee productivity through the systems created. All this leads to the conclusion that structural capital is one of the most important elements of intellectual capital, which is related to innovation, processes, capital innovation and development.

1.2.3. Customer Capital

The concept of customer capital includes customer satisfaction with the products offered by companies, the service process, meeting customer needs after purchasing a product or service. The importance of today's customer capital is growing due to increasing corporate competition. To understand customer needs, companies should maintain a close relationship with their customers. According to Sussana (2012), the most important thing is not the product or service that the customer acquires, but the impression and experience that the seller is able to create. The customer capital could be measured based on four criteria: the strength of the relationship between companies and customers, the total number of customers, customer loyalty, and customer profitability.

Macerinskiene and Bartuseviciene (2012) identified customer capital as an intangible resource that encompasses the knowledge of customers, suppliers, and other organizations that can positively impact a company's value. Seeing positive changes within the company, customers or suppliers are more likely to choose the goods it offers and services. Companies, in turn, pay

more attention to the expressed wishes of customers, and use the collected and systematized information to increase the efficiency of their operations.

It can be argued that customers, without realizing this, become part of the organization and directly influence the company's business strategies. The customer capital could be also described as a resource directly related to customers, suppliers, research partners. In his view, customer capital is more concerned with their perceptions than with the product or service itself.

Client capital is concerned with the organization and its relationships, with external elements such as customers, providers, creditors, or shareholders. In other words, social capital is the ability of an organization to create value in its relationships with external stakeholders. Organizations can build up reserves of high social capital like customers, brand loyalty, customer satisfaction, image, and prestige in the marketplace, but most importantly not only create client capital but also be able to retain it for the organization to succeed (Cahill et al., 2010). Client capital has a direct impact on the added value created by an organization and is increasingly becoming a decisive factor in maintaining a long-term competitive advantage.

Client capital includes relationships and networks with customers, employees, consumers, partners, and all parties involved in an organization's value creation. The same concept is often referred to as consumer capital, which involves only relationships with one stakeholder. Melloni (2015) identify consumer capital that can be measured as market share potential, market intensity itself, customer loyalty, and so on. In a company, it is not only the relationship and communication with consumers that is important, but also that the company's activities and value creation are influenced by suppliers, research and scientific institutions, partners. In a global context, a company is part of a large network and in order for this network to benefit, client capital with all parties, both internal and external, must be developed and managed.

Jahanshahi, Nawaser (2019) state that customer capital plays an increasingly vital role in a firm's productivity, growth and financial performance. From an information processing perspective, customer capital has the potential to enhance the innovativeness of firms due to the acceleration of information processing within organizations. Through customer capital, firms keep a constant relationship with the surrounding environment, such as their customers. It enables firms to know better about their customers' perspectives, expectations, beliefs, and values. This information is crucial to recognize the customers' needs and demands faster than competitors. All of these provide an opportunity for firms to ascertain the customers' new demands by presenting innovative products and services.

Summarizing it could be stated that various authors attribute essentially the same intangible resources to the components of intellectual capital, but use different terms to describe them, such as: which is used or can be used to create value in the organization. All authors see the

organization's connections as an important part of intellectual capital, but they analyze them into a different structure - they take them as a separate component, others include in the structural part of the capital.

1.3. Components of Intellectual Capital from Management Perspective

1.3.1. Human Capital

Kucharcikova, Miciak (2017) defines human capital management as a practice that enables any organization to attract, recruit and develop sufficiently skilled and motivated employees, including practices such as job planning and analysis, human resource planning, employee recruitment and selection, performance management and evaluation, employee promotion, employee training and development.

Giziene (2012) states that human capital is not only knowledge in the form of accumulated experience, skills, skills, qualifications, professionalism, but also motivation and personality type, its gene pool, value system, health and other abilities (psychological, communication etc.), (Figure 3). It can be argued that knowledge is not the only element influencing human capital. It is not the most important thing for every individual to constantly acquire competencies and update them. This applies to personalities with strong physical abilities (athletes) and other innate talents (singers, actors). The value of their human capital from management perspective is determined not only by the competencies and knowledge they have, but, most importantly, by their innate talents.



Figure 4. Human capital components.

Source: Giziene, 2012.

Ahmadi, Parivizi et al., (2012) argue that human capital constitutes intellectual capital, and therefore without implementation of intellectual capital is impossible. And without intellectual capital, there are no innovative products, services and the business process itself. In other words, intellectual capital includes knowledge, skills, abilities of an organization's employees that can be used to solve problems. Because human capital belongs to the staff of the organization and not to the organization itself, hence, when an employee leaves, part of the human capital leaves the organization with him. Therefore, the company converts it into other types of capital to protect the capital.

1.3.2. Internal Capital

Internal capital is concerned with the mechanisms and structures of organizations by which employees can improve their work skills. Therefore, the value of internal capital is higher than the value of business. An organization that uses weak systems and procedures does not have the ability to achieve the highest level of efficiency in hiring its employees. On the other hand, an organization that has a powerful structure can help its employees achieve their goals through a supportive organizational culture. The components of internal capital are presented in figure bellow (Figure 5).

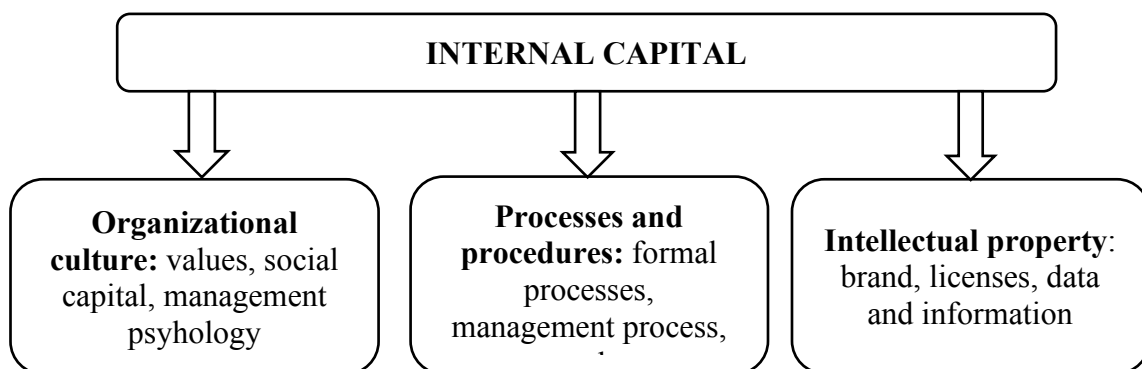


Figure 5. The components of internal capital.

Source: Ahmadi, Parivizi, 2012.

According to Ahmadi, Parivizi (2012), organizational culture is extremely important for achieving the goals set by the organization. Organizational culture provides an overview of

decision-making as well as a set of values. Cultural resources include business culture, organizational values, and management philosophies. It provides employees with a common framework that encourages individuals to work both independently and as a team. Processes and procedures include internal methods and processes, which can be formal or informal procedures and rules. Formalized procedures can reflect rules, informal procedures are workflow and behavioral rules. Intellectual property - depends on whether legally protected resources are becoming increasingly important. Patents, copyrights, trademarks, trade secrets, database content, have become a key element of competition and intellectual property belongs to the organization, not the employees.

Survilaite (2017) states that examining the expression of the content of the elements of the internal capital of a company is confronted with ambiguous concepts. It is appropriate to answer the questions that are often asked by scientific critiques, whether unrelated inventions and improvements, and whether technologies is intellectual capital. Inventions are understood as the results of a completely newly created human capital of the company's employees. Improvements are understood as upgrades to existing programs or systems, for example: in an enterprise the existing system allows the creation of tables showing the number of customer purchases. After improving the program, the system shows not only the number of customer purchases, but also the amount. Ensuring the smooth operation of technology is understood as an intangible element of mental work a result that requires monitoring, control, and knowledge. In a general sense, these elements of internal capital are seen as assets that do not in themselves create value, but only when the employee works with them creates the result of daily work.

Internal capital, according to Ramanauskaite (2014), perceived as the organizational and financial structure of the company, strategic processes, technologies, procedures, process documentation, risk assessment methodology, hardware, software, systems, use of information technology, databases (e.g. covering market and customer information) , patents, trademarks, sales management techniques, communication systems, and all other organizational capabilities that support employee productivity and facilitate collaboration. It also includes the value, culture and philosophy of the company. It can be said that this includes those technologies, methodologies and processes that allow a company to function. In other words, it remains in the company at the end of the working day and when employees leave. Unlike human, this capital can belong to a company and thus be disposed of. This capital is considered the second most important in the company after human capital.

1.3.3. External Capital

Ramanauskaite (2014) states that external capital is perceived as company knowledge, brands, image, company networking, order fulfillment, supply channels, long-term contracts, licensing and franchise agreements, and relationships with external parties underpinning company marketing and commercial skills. Outsiders in this context include customers/consumers, business partners, suppliers and regulators.

1.4. Management of Intellectual Capital

1.4.1. Models of Intellectual Capital Management

The choice of intellectual capital management method is influenced by the type of organization, the attitude of managers, the position of the organization, etc. In practice, there is no common approach to intellectual capital management. However, there are many different organizations using different methods. There are organizations that do not use intellectual capital management models at all. However, in the current knowledge-based economy, a model of intellectual capital is necessary (Malinowska-Olszowy, 2012). Unlike other types of innovation (creation of a new product or service), the intellectual capital model is not easily copied, thus achieving a long-term and significant competitive advantage. However, this system will not be able to operate if intangible assets are managed in an unskilled manner.

Usually, the value of a company's intellectual capital is calculated as the difference between the company's market and the book value of physical capital. It should be noted that the most difficult task for researchers is to substantiate that intellectual capital creates added value. For example, financial statements only record intellectual property, such as a patent or trademark. Meanwhile, some aspects of a company's intellectual capital assessed by researchers are not reflected in the financial statements. According to Stankeviciene and Liucvaitiene (2012), intellectual capital should be assessed using an expert method that would help to assess the importance of certain factors by identifying indicators that best reflect the criteria, as well as measurable. The scheme for evaluating such intellectual capital is presented in Figure 6.

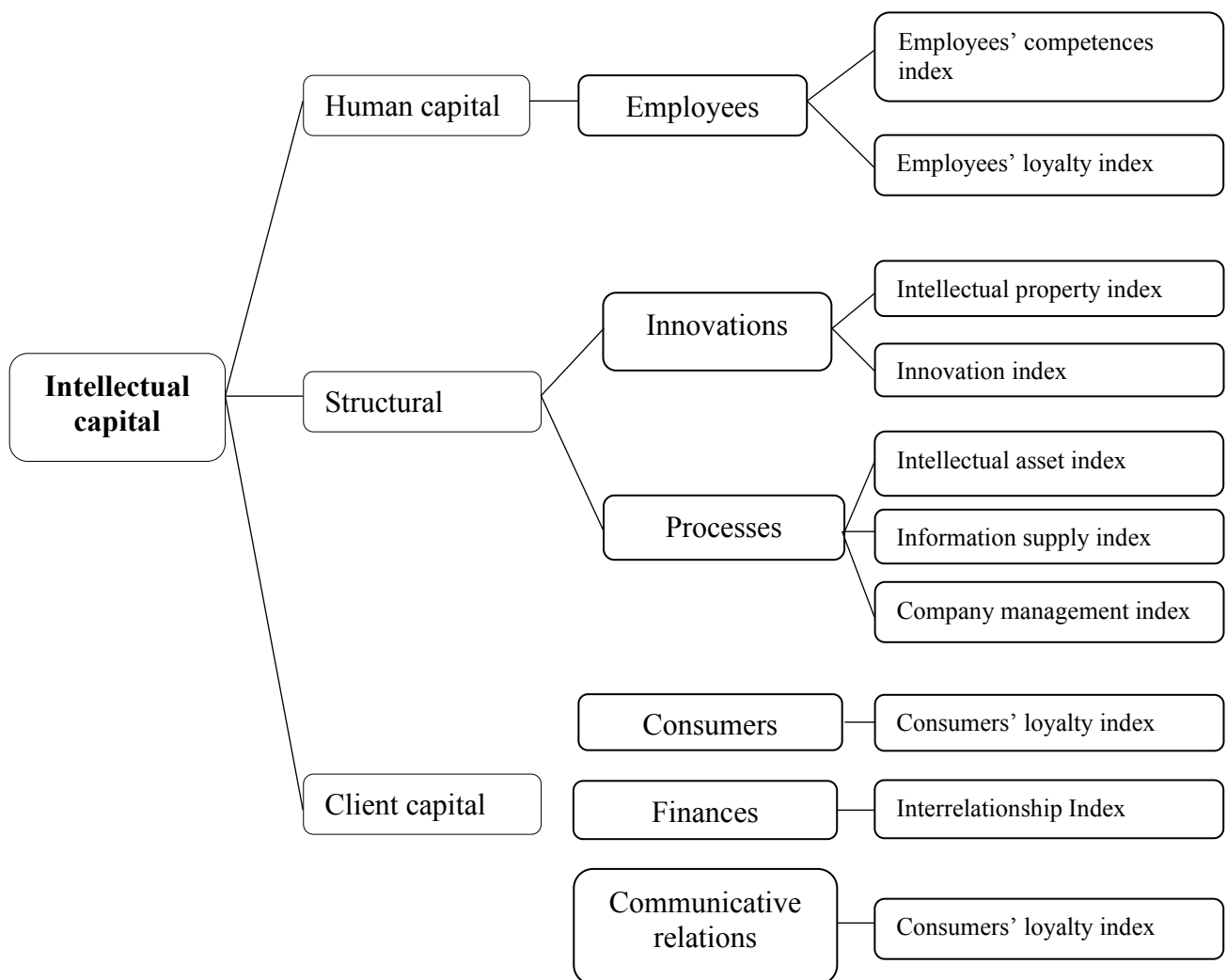


Figure 6. Intellectual capital evaluation scheme.

Source: Stankevičienė, Liučvaitienė, 2012.

Some researchers suggest treating human capital as an indicator of employees and organizational (structure) capital as indicators of innovation and processes (Stankevičienė, Liučvaitienė 2012). Also use indicators of consumer, financial and communication processes to describe the client capital. When evaluating employees, it is necessary to take into account the level of education, working hours and relevant competencies, costs required for the creation of the environment, education and training. These indicators are used to calculate employee loyalty and competence indices. In this way, employee satisfaction and loyalty to the company can be determined. Accordingly, the organization's trademarks, patents, licenses, franchises, copyrights, trade secrets are evaluated by analyzing the innovations in the company. This makes it possible to calculate innovation and intellectual property indices. The result shows the participation of consumers in long-term processes, consumer satisfaction, consumer loyalty and the company's

image. When analyzing company processes, it is very important to evaluate investments in information technology, premises and equipment, distribution of internal and external information technology users, investments in market research and development, organization's website and intranet, organization management processes and culture, company reputation. All these indicators are used to calculate and evaluate the indices of information supply, intellectual property and corporate management.

Methods of assessing the intellectual capital of a company have been studied by many authors, whose work mentions more than sixty different methods proposed for the valuation of that capital. Such an abundance of methods and variations in their application undoubtedly complicate both theoretical and empirical research in this area. In order to systematize and reveal the features and commonalities of various methods, many authors classify them according to certain features. After conducting the research and evaluating all aspects of the classification of intellectual capital evaluation methods presented in the research papers, a generalized classification scheme of these methods was developed (Figure 2). It has been found that intellectual capital valuation methods can be classified on the basis of four criteria and categorized accordingly.

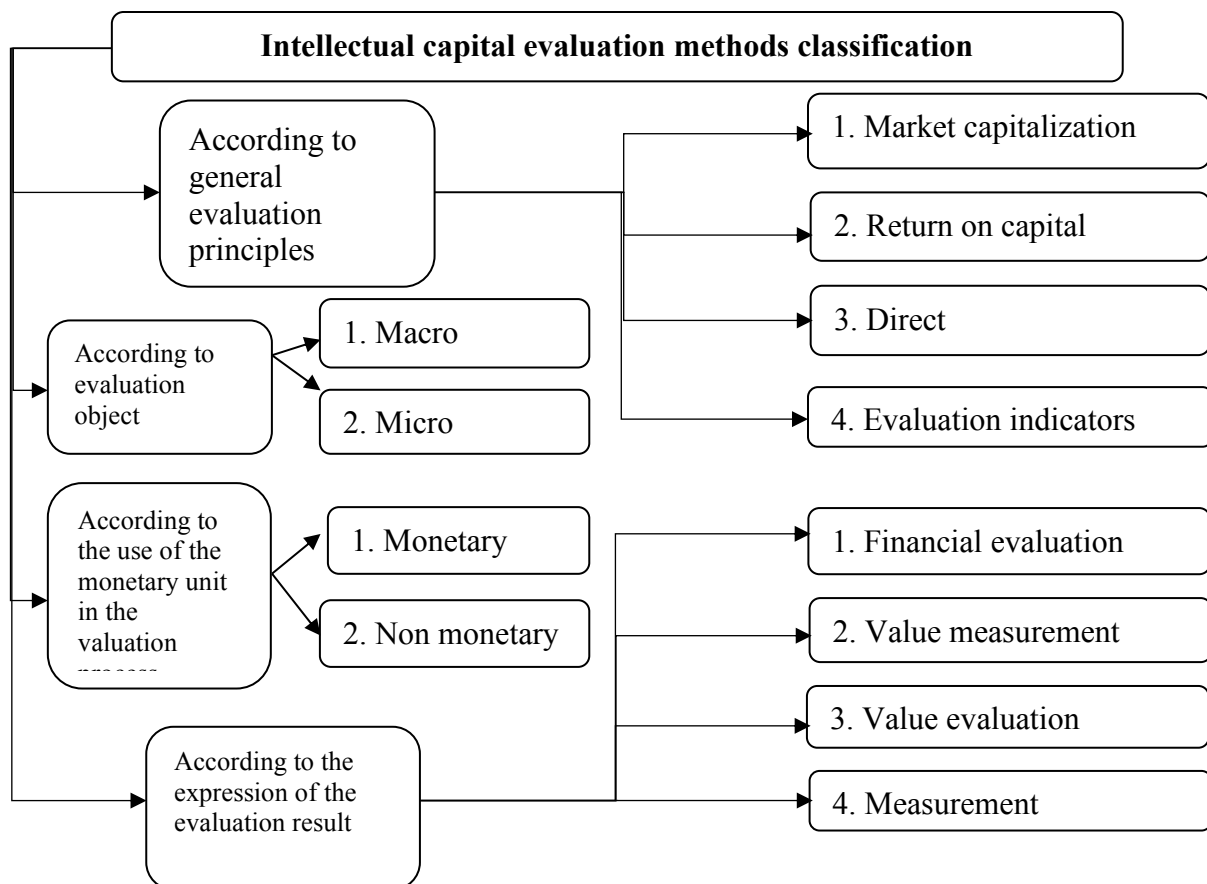


Figure 7. Intellectual capital evaluation methods classification scheme.

Source: Ramanauskaite, 2014.

Most of methods according to the first classification belong to the group of evaluation indicator systems - intellectual capital is valued without the use of monetary units, but by assigning indices or indicators to its individual components. This is also justified by the number of methods assigned to the micro-group of the second classification, e.g., most methods value intellectual capital not as a whole but only as individual component. In the third classification, the number of methods assigned to both groups is approximate, but still more methods do not use this unit of measurement in the evaluation process. According to the fourth classification, most methods are assigned to the group of financial evaluation methods. Most intellectual capital evaluation methods are based on evaluation indicator systems, evaluate individual components of intellectual capital and do not use monetary units in the evaluation process, therefore the evaluation result is not monetary, e.g. qualitative - presented in text, or quantitative - expressed in an index.

One of the popular intellectual capital management models is created by Marr (2008). The author distinguishes 5 steps of intellectual capital management (Figure 8).

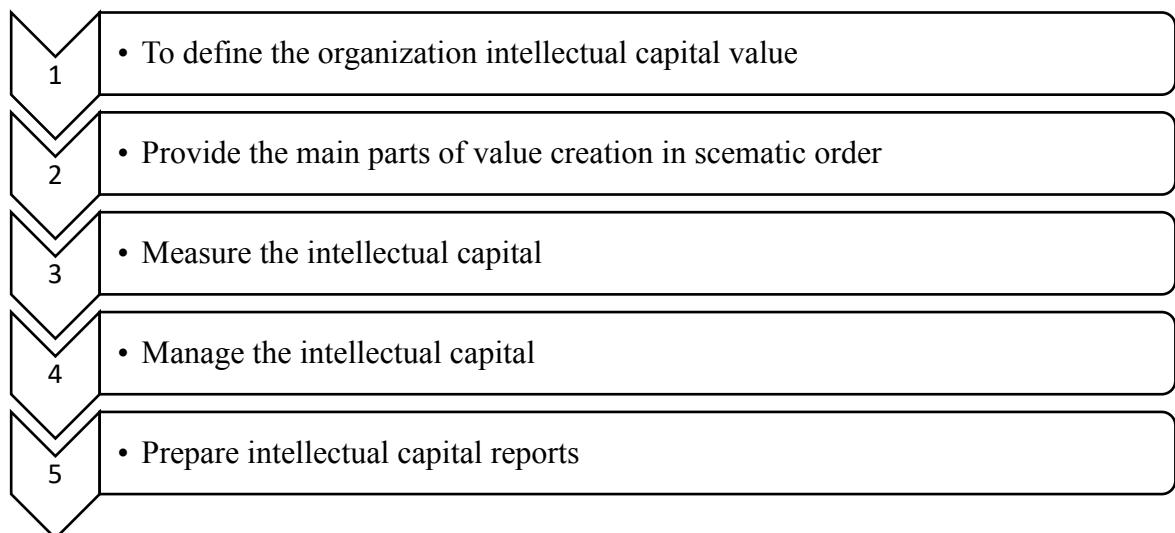


Figure 8. Marr model of intellectual capital management.

Source: Marr, 2008.

The first step is to identify the intellectual capital of the organization. The identification begins with the elucidation of the parts of intellectual capital (structural, human, relationships). Such information can be used to create a model that informs people about different categories of intellectual capital and makes them think about the intangibles of an organization. When determining the level of intellectual capital of a company, it is advisable to use several methods: observation, surveys, focus groups, seminars. This would help to find out how seriously the organization is immersed in the management of intellectual capital, what processes of this management are already in place, what needs to be adjusted. The measurement of intellectual

capital begins with the identification and marking of intellectual capital values. The measurement result must provide significant information that helps to reduce the uncertainty about the intellectual capital, as well as the true value of the intellectual capital. Given the results of much research, we cannot consider the measurement of intellectual capital as an exact science like mathematics or accounting, as it is necessary to take into account factors such as employee effort, available employee potential, and so on.

There are various range of models dedicated for intellectual capital management. As well analyzing the scientific literature it could be stated that different authors provide a wide range of models. Bailoa (2017) these models divide into four categories:

- ✓ direct intellectual capital models – dedicated to estimate monetary value of intangible assets by identifying its various components;
- ✓ market capitalization models – dedicated to calculate the difference between the company's market capitalization and its stockholders' equity as the value of its intellectual capital intangible assets;
- ✓ return of assets models - average pre-tax earnings of a company for a period of time are divided by the average tangible assets of the company, the result is a company ROA that is then compared with its industry average;
- ✓ scorecard models – the various components of intangible assets or intellectual capital are identified.

Stankeviciene, Liucvaitiene (2012) outline that there are two types of models in the scientific literature: intellectual capital measurement models (indicators) and intellectual capital valuation models. Both types of models are correlating with each other. Some aim to measure (measurement models), others evaluate (valuation models) individual intellectual capital aspects. The essential difference between these models is that measurement models include more specific indicators or their groups for measurement purposes only. Appropriate assessment models seek not only to measure but also to assess the benefits organization or society from intellectual capital.

Broniukaitis (2018) states that in order to get the most value from an organization's knowledge-based assets – intellectual capital, it is important to combine several strategies, such as: business strategy - focused on knowledge management processes, knowledge sharing, and experience in applying them in relevant activities; intellectual property management strategy - focused on knowledge management, patents, technologies, consumer relations; the strategy is learning-oriented in order to acquire newer knowledge and apply it to innovation; knowledge transfer strategy - focused on knowledge sharing and application of best practices.

Pirogova, Voronova (2020) state that currently, several approaches have been formed to assess the level of a company's intellectual capital. The systematization of methods for assessing a company's intellectual capital is presented. Currently, there are five groups of methods for assessing IC at the micro level:

- ✓ Return on Assets Methods, ROA;

- ✓ Market Capitalization Methods, MCM;
- ✓ Direct Intellectual Capital Methods, DICM;
- ✓ Balanced card techniques, SC;
- ✓ Proper Measurement Systems, MS.

Gogan (2015) describes Skandia Navigator Skandia model of Intellectual Capital management. It reflects four key dimensions:

- ✓ Financial focus
- ✓ Customer focus
- ✓ Process focus
- ✓ Renewal and development focus

At the heart of these is human focus, which drives the whole Skandia Navigator mode. is an important tool. However, because it relies on a balance sheet to reflect the monetary value of a company's intellectual capital, Skandia Navigator neglects many contents of intellectual capital which play important roles in creating value, such as a company's culture, organizational learning and an employee's creativity. In addition, among the more than 100 indices recommended in the Skandia model, there may be some mistaken assumptions. For example, employees showing up for work and sitting in front of their computers do not necessarily mean they are investing knowledge which can be transformed into their company's competitive advantage, so Skandia's structural capital variables, including the number of possessed computers, can be criticized.

The application of most methods requires the use of accounting, financial statements, as well as confidential information about the company's activities. In addition, some methods require different market metrics to be used to determine risk-free rates, industry average beta, industry average profitability levels, etc., which vary greatly by market type and current economic environment. Currently, another method for assessing the company's intellectual capital has been developed, which consists in conducting content analysis of the company's annual or integrated reports. The same category includes methods for analyzing information from external sources—company websites, speeches of officials and top managers, analysis of the number of shares, etc.

2.INTELLECTUAL CAPITAL EVALUATION RESEARCH METHODOLOGY

2.1.Intellectual capital evaluation research methodology

There are two methodological approaches or methods - quantitative and qualitative - obtainable to researchers. In the qualitative approach there is an emphasis on procedures and they are not measured in terms of quantity. In the quantitative approach there is a profound perceptiveness of the phenomenon in its circumstance. Furthermore, quantitative researchers emphasize the measurement and analysis of causal relationships between variables, not processes (Hollensen, 2004).

Qualitative data have a strong advantage over quantitative data in drawing insights that could not be gained with “hard” data only. Qualitative data are rich and holistic, with strong potential for revealing complexity. “The more the study is a qualitative study, the more emphasis will be placed on the experience of people in the program or with the phenomenon”.

As outlines Veal (2006) the quantitative approach involves the statistical data analysis. For the reliability of results it is necessary to study relatively large amount of data.<...> The data should be derived from questionnaire surveys, secondary sources. The qualitative approach is not related to the numbers, the main focus is on gathering data from a small number of people.

Case studies supply explanatory evidence as to the reasons and motivations behind small firm internationalization. It is recommended focusing on more narrowly defined groups of firms, generating rich data. The case study method for permitting researchers to study exporting as a dynamic process. Its strength lies in facilitating the study of the internationalization process from numerous perspectives and consequently facilitating a more thorough analysis of each firm than is possible in survey research. Case studies should not be confused with qualitative research and they can be based on any mix of quantitative and qualitative evidence (Rundh, 2006).

The interview method was chosen for the research. The interview method is most widely employed method in qualitative research. Telephone interviews using interview schedules are becoming increasingly efficient with developments in computer technology. It can be used as a powerful form of formative assessment. That is, it can be used to explore how a respondent feels about a particular topic before using a second method (such as observation or in- depth interviewing) to gather a greater depth of information. Structured interviews can also be used to identify respondents whose views you may want to explore in more detail (through the use of focused interviews, for example) (Hollensen, 2004).

The choice to carry out the analysis and thesis is based on epistemology and ontology of interpretive paradigm. This thesis is not constructed not only by analytical part, but also covering the subjective approach of the problem. Also, as a researcher I am linked to the reality and to my findings that I take an active part in the building of knowledge (Brymann, Bell, 2007).

This thesis will have an additive approach (Dubois, Gadde, 2002). It is the most suitable way, because there will be an alternation between theory and empirical findings looping conducting the project. The reason for choosing this method is because whereas inductive research strategy can be used to answer “what” questions, and deductive and reproductive can be used to answer “why” questions the additive research strategy can answer both type of questions. However, it answers “why” question by producing understanding rather than explanation, by providing reasons rather than causes (Blakie, 2007).

Research could be defined in various ways, but in general the research is outlined as a systematic investigation seeking to find answers to a problem or research question. The research process enabling systematic investigation is usually expressed by research framework: series of steps or stages of research.

This research framework is described in following figure.

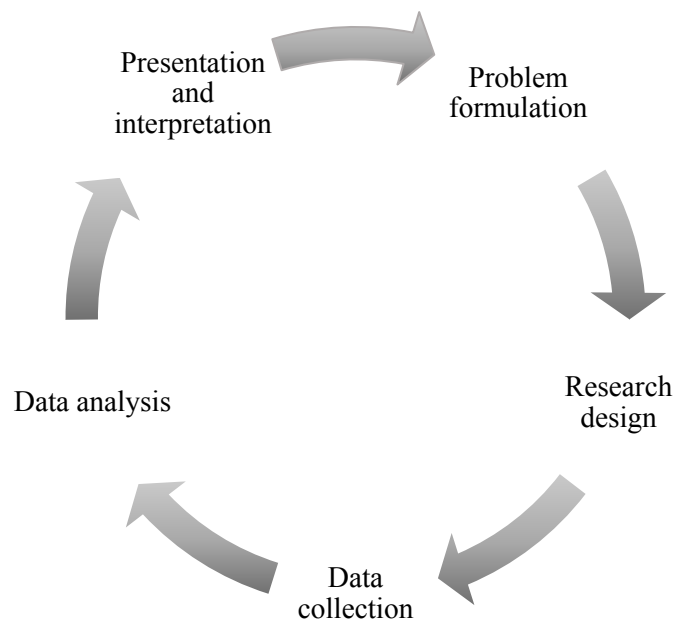


Figure 9. The research cycle.

Source: formed by author according the analyzed authors' opinions.

Research framework includes the following aspects: conceptual framework, which sets out the key concepts and investigated factors; analytical framework is considered as a set of relationships which can serve in organizing the preliminary way the object of the enquiry. Also the analytical framework serve to structure the analysis of research data (Pearce, 2012).

The exploratory case study research design was chosen for this thesis. Because this method can perfectly answer both type of research questions like “how” or “why”, extent the control over behavioral events and mostly important develop an in depth description and analysis of a specific case. Also, case study and empirical research are suitable and match the outlined problem in this paper. And this research design is mainly suitable for cases, which have a narrow scope as well research results, could be used for other business companies.

The design of the research: the research was carried out in following steps:

- The preparation of research methodology and instrument;
- The interviews with HR specialists and Executives;
- Codification of interview results;
- Analysis and interpretation of research results;
- Conclusions and recommendations.

The above described research design is the most suitable for the achievement of targets of this thesis.

The research instrument. In the study there is used a written questionnaire method. Questionnaire instrument is a list of questions (Annex 1 and 2). It takes into account the nature of the review team and the future of the respondents. All questionnaires formulated in accordance with the theoretical concepts. Questionnaire consists of two main components: social - demographic questions and the diagnostic unit block.

The questionnaire was structured so as to afflict the survey participant. The questionnaire consists of the following parts:

- introduction for the respondents providing the information about the author of the research, the main aim of the research as well the main instructions for the questionnaire filling;
- **The demographic data:** the occupation of respondents, the working experience, information about the company;
- **Intellectual capital evaluation:** the information about intellectual capital and its structure: human, structural and client capital; intellectual capital evaluation.

Validity is the extent to which the information is collected by the researcher and truly reflects the phenomena, which is studied and analyzed. As Veal (2006:41) notes “leisure and tourism research are fraught with difficulties in this area, mainly because of empirical research is largely concerned with people’s behavior and with their attitudes <...> and the information usually relies on the results of interview or questionnaires”.

To ensure reliability in the research, examination of trustworthiness is crucial. Reliability and validity are conceptualized as trustworthiness, rigor and quality in qualitative paradigm. It is also through this association that the way to achieve validity and reliability of a research get

affected from the qualitative researchers' perspectives, which are to eliminate bias and increase the researcher's truthfulness of a proposition about some social phenomenon using triangulation. Then triangulation is defined to be "a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study" (Creswell, Miller, 2000:64). Triangulation may include multiple methods of data collection and data analysis, but does not suggest a fix method for all the researches (Golafshani, 2003).

- **Data triangulation:** involves time, space, and persons
- **Investigator triangulation:** involves multiple researchers in an investigation
- **Theory triangulation:** involves using more than one theoretical scheme in the interpretation of the phenomenon
- **Methodological triangulation:** involves using more than one method to gather data, such as interviews, observations, questionnaires, and documents.

Any kind of the research is based on the main research ethics principles. The one of the main approaches is to keep confidentiality and non-disclosure agreement. The main principles of research ethics are described in Table No. 2.

Table 4

The research ethics principles

The principles	The description
Principle of honesty	The results of the research should be honest, with no fabrication, plagiarism.
Principle of objectivity	The personal interest could not affect the research results
Principle of integrity	The promises and agreements should be kept.
Principle of carefulness	All the results should be assessed carefully and fairly.
Principle of openness	Methods, data should be provided for the participants if required.
Principle of anonymity	All participants are able not to provide the personal data and protection of personal rights is the obligation of the researcher.

Source: formed by author according to J. Kruk, 2013.

The scientific literature revealed the principles of ethics: privacy, anonymity and confidentiality. The research was carried out in compliance with ethical principles. These research ethics principles were used during performance of interview with respondents. Each participant

had the right freely participate in the research, as well the research does not provide personal data, protects the rights of participants.

The most affecting limitation will be resources. The fact that information provided by company Executives and HR managers can be bias because of their position in the work and covering problems that can lead to bad marketing fright. Some information might be gathered through email conversations with employees that might endanger thesis academic conception. There were no problems or obstacles related to the interview performance. The limitation is only related to the number of employees, the small number of staff and in some points the results could not show the real situation. Despite of all the problems respondents who participated in the research helped to collect all the needed information and get the answers to the questions.

It should be noted that some of research participants tried to avoid the answering questions and their opinion was very narrow and provided information missed some facts or details. Other participants provided detailed information, explained their opinion, kindly advised how to analyze the provided data. Lastly, time limit should be taken into consideration due to the restrains put on the research and also the pandemic situation affect.

2.2. Organization description

UAB “TELTONIKA” was established 15th April, 1998. Today Teltonika companies’ group unites more than 1300 employees in 18 countries and 24 offices. The considerable experience in design and manufacturing as well as implementation of the newest technologies help “TELTONIKA IoT GROUP” to produce high-quality and safe Internet of Things (IoT) devices. This organization is proud of working on made-in-Lithuania unique IoT products that help people worldwide.

“TELTONIKA IoT GROUP” is expanding the business through 5 business niches:

1. TELTONIKA TELEMATICS – the world-leading tracking hardware
2. TELTONIKA NETWORKS - professional networking equipment
3. TELTONIKA SAS – smart autonomous tracking and control solutions
4. TELTONIKA TELEMEDIC – pulmonary ventilator and other healthcare devices
5. TELTONIKA EMS – electronics manufacturing and original design services.

All Teltonika companies are controlled by “TELTONIKA IoT GROUP”, which establishes and develops uniform internal processes for the whole company group, from providing the highest quality customer service to presenting our unique projects to clients.

“TELTONIKA IoT GROUP” has its own Information Technology Development department and Information Technology Administration department. The Information

Technology Development department works on specific software to facilitate the efficient management of product cycle from leaving the manufacturing facility till arriving at the client’s location, whereas the specialists of Information Technology Administration department are responsible for the global Information Technology infrastructure of the company group.

The Administration department of “TELTONIKA IoT GROUP” is in charge of frictionless functioning of all administrative activities in every Teltonika company. It encompasses such processes as agreements with clients, international law, and more.

There is also the Human Resource Development department that ensures smooth staff selection processes in all the companies. The human resource managers also creates opportunities for every employee to grow and develop their skills.

The overall financial indicators of the whole company group are supervised and managed by Finance and Accounting department specialists.

Finally, the Brand Development department is responsible for promoting the Teltonika brand via all social media and spreading awareness about it in every region of the world.

2.3. Respondents of the written questionnaires

In the study there is used two list of questions (Annex 1 and 2). The questionnaire in Annex 1 is prepared for Human resource managers, and the questionnaire in Annex 2 is prepared for Executives of “TELTONIKA IoT GROUP”.

The questionnaire for the human resource managers has answered 6 specialists of “TELTONIKA IoT GROUP” Human Resource Development department (Table 3).

Table 3

The respondents of Human Resource Development department

Respondent Code	Position	Working experience in the organization	Functions in the organization
HR1	Head of Training and Education Management	<i>2 years and 2 months</i>	<i>Currently leading learning and development (training and educational) initiatives within the company group. For approx. 2 years I was responsible for full recruitment cycle and employee life cycle (onboarding to exit) of one department within the company.</i>
HR2	HR Project Manager	<i>More than 2,5 year</i>	<i>To help with talents attraction and development.</i>

Table (continued)

HR3	Head of HR Development	<i>I am working at Teltonika for about 8 and a half years</i>	<i>Currently I am responsible for two main areas at Teltonika IoT Group Human Resources Development Division. These two main areas are: Succession planning and internal career; Performance management (Competencies based evaluation and etc.).</i>
HR4	Head of Teltonika GPS B2B Academy	<i>12 years</i>	<i>Sales personnel development: create and execute sales training, proceed with the guidelines of the management of sales processes, lead the B2B Academy.</i>
HR5	HR Project Manager	<i>5 years</i>	<i>My functions in organization include full life cycle recruiting, company's events organization, various small projects related to HR.</i>
HR6	HR Project Manager	<i>I have been working for 2 years in my company.</i>	<i>I'm responsible for new processes, regarding producing, implementation and moderation of its. Another function is to maintain the current processes and policies. Also I work with hiring procedures and recruiting.</i>

Source: formed by author according the answers of respondents.

The questionnaire for the executives has answered 6 executives of “TELTONIKA IoT GROUP” management team (Table 4).

Table 4

The respondents of the organization management

Respondent Code	Position	Working experience in the organization
EC1	Chief Executive Officer Teltonika Telemedic	10,4 years
EC2	Vice President of Asia and CIS Regions	8,5 years
EC3	Head of Operational Marketing department	7,3 years
EC4	Head of Personal Tracking Products	8,4 years
EC5	Vice President of Internal Systems and Processes Development	10,6 years
EC6		10,8 years

Source: formed by author according the organization data.

3.INTELLECTUAL CAPITAL MANAGEMENT EMPIRICAL RESEARCH RESULTS ANALYSIS

3.1. Human resource managers results analysis

The first research questions are related to work experience and functions of human resource managers. The participants are working in the same company from 2 to 12 years. It could be stated that participants are experienced and have been working in the same company for enough long period. The analysis of job functions revealed that some respondents are currently leading learning and development (training and educational) initiatives within the company group. As well one of respondents was responsible for full recruitment cycle for 2 years. Some respondents more clearly described the main functions in organization: responsible for two main areas at Human Resources Development Division. These two main areas are: succession planning and internal career; performance management (competencies based evaluation and etc.). One participant works in sales personnel development: create and execute sales training, proceed with the guidelines of the management of sales processes, lead the B2B Academy. Also respondents' functions in organization include full life cycle recruiting, company's events organization, various small projects related to human resource management. It could be stated that participants are highly qualified and the functions cover main areas of human resources management and also participants are able evaluate intellectual capital management overall situation in organization.

The first question asked participants to describe the main features of intellectual capital (Table 5).

Table 5

Intellectual capital concept evaluation

Respondent Code	The concept of intellectual capital
HR1	<i>As far as I'm aware, the intellectual capital of a company is all the knowledge, experience and know-how (through employee competencies, patents, trademarks, in databases etc.), policies (incl. mission, vision), processes (incl. training and development), procedures, brand, contracts and agreements.</i>
HR2	<i>The value which is defined as organization's employee knowledge, skills and other.</i>

Table (continued)

HR3	<i>Intellectual capital is the value of organization's employee knowledge, skills, business training or any proprietary information that may provide the company with a competitive advantage. Intellectual property (patents, licenses, management and marketing experience, technology, data networks and databases) is also one of the elements of the intellectual capital.</i>
HR4	<i>Intellectual capital refers to the intangible assets, however, used to create value by using human resources, employees' expertise, technological knowledge, create and manage processes, as well as to manage changes in the organization.</i>
HR5	<i>It includes wide range of features: employee knowledge, competencies, trainings, work culture and ethics, customers and suppliers relations to the company, policies, processes, company's mission and vision, etc.</i>
HR6	<i>I believe and of course from my perspective the main features of intellectual capital are ability to understand employees and customers (candidates) IQ and EQ. Both of them we could use to creative and improve the current know- how in the company.</i>

Source: formed by author according the answers of respondents.

Analyzing the answers of participants it could be stated that provided definitions include main features and structure components of intellectual capital. From the provided definitions it is clearly seen that participants understand intellectual capital as human and structural capital stating that intellectual capital is value of organization's employee knowledge, skills, business training or any proprietary information (patents, licenses, management and marketing experience, technology, data networks and databases). Only one participant intellectual capital described as value which is defined as organization's employee knowledge, skills pointing only features of human capital. Dameri and Ricciardi (2015) defined intellectual capital as a system made up of different capitals that include: employees, organizational processes, intellectual property, and relationships with customers, suppliers, distributors, and partners. From provided definitions and summarizing the answers it could be stated that participants are able to define the concept and main features of intellectual capital.

The participants have been asked to describe how intellectual capital is affecting the company's activities in international market (Figure 10).

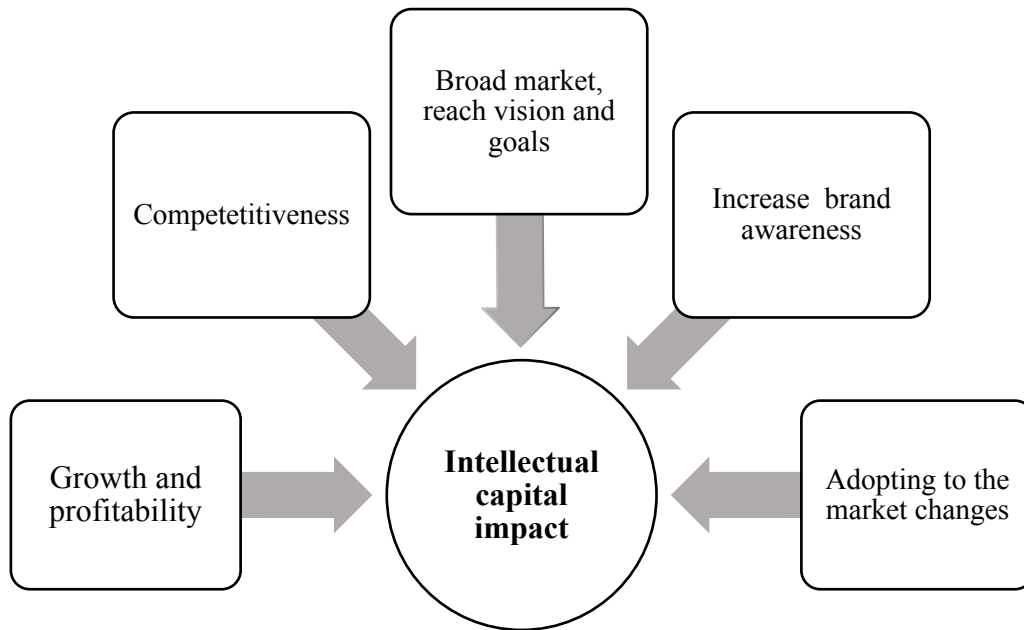


Figure 10. Intellectual capital affect company activities.

Source: formed by author according the answers of respondents.

The research results revealed that intellectual capital is affecting company's activities in 5 main areas: growth and profitability, competitiveness, market expansion and reaching company's goals, increase brand awareness and adoption to market changes. Intellectual capital could be considered as an important determinant of a company's overall success in international market, affecting its growth, profitability and competitiveness. Since in the most simple terms intellectual capital is knowledge and information stands to reason that in the ever more globalized market information is power. Intellectual capital is the main element for reaching company's vision and goals. So strong intellectual resources base (databases, technology, brand, employees' skills, training base, management experience) help to broad market with necessary devices portfolio at the right time. It could be stated that intellectual capital effects expansion by establishing brand new international branches, hiring high competence specialists, furthermore adopting and creating actual and specific technological equipment according to the different economic situations as well as different cultural aspects. Some participants mentioned that intellectual capital affects directly overall company's activities especially if the company is international - then all the intellectual capital components (human, relational, structural) affect company's activities: from employees performance internationally to company's vision, mission, goals that are declared to the public. It can help increase company's brand awareness, reliability and trustworthiness. Summarizing it

could be stated that intellectual capital is affecting overall company's activities, participation and expansion in international market, helping to increase competitiveness and brand awareness.

The next question was related to human capital and how human capital could affect the international activities (Figure 11).

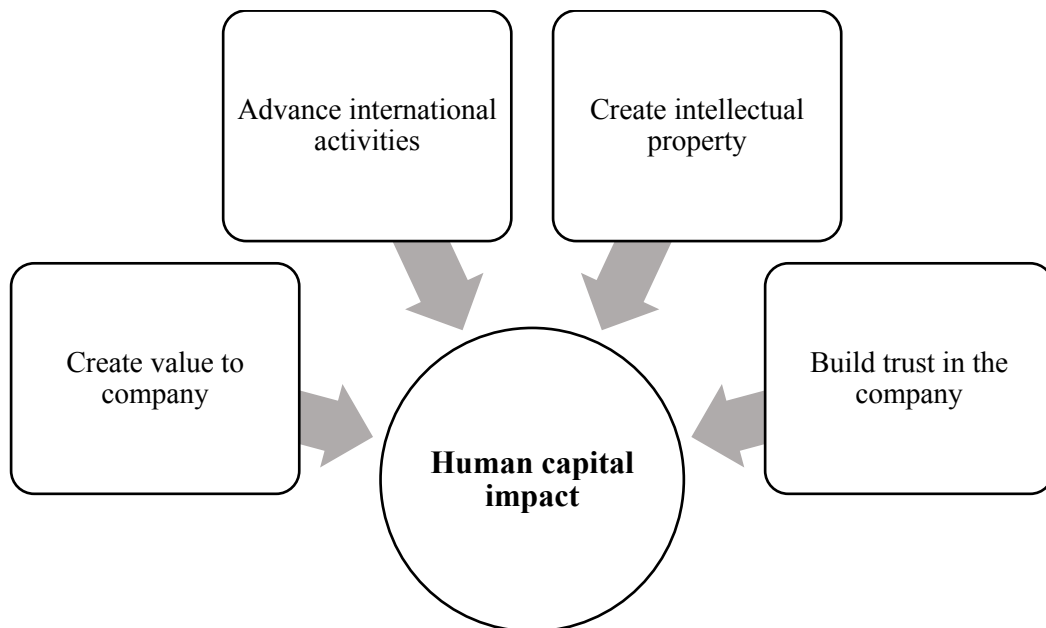


Figure 11. Human capital impact to organization.

Source: formed by author according the answers of respondents.

The main human capital impact areas to organization activities have been revealed summarizing the research results: create value to the company, advance and broad international activities, create intellectual property and build trust in the company. Since it is without a doubt ideas and intellect that start and build successful companies from the ground up, human capital and knowledge are the most important assets providing added value to modern companies. To stay competitive in the globalized and international market it is important to hire people with the right and high competencies and to invest in the continued learning and development of human resource. The human capital can only advance and add value to international activities. Human capital as a part of intellectual capital is an instrument to reach company's goals. Also it should be noted that human capital create an intellectual property, accordingly, an impact on international markets by human resource is very significant (competencies, know-how, qualification and, etc.). Only human resource is able starting from research and development capabilities to create and develop new solutions, back-office services capabilities to administrate, look for new talents, and ending with the delivery of the solutions to the market by sales divisions. And as well the professional competencies they are using while working with international clients. One participant mentioned that employee's satisfaction of their work, experience and knowledge they can share

via social media, various international events, exhibitions, presentations and all these things build trust in the company. Summarizing it can be stated that human capital is an important part of organization, using the experience and knowledge creating the value to organization, providing the best solutions and innovative ideas for organization, improving the relations with clients, partners, building trust and helping to reach organization goals.

Another question is related to human capital development. The participants have been asked if organization have human capital development programs, procedures. How human capital is used in international market activities? (Figure 12).

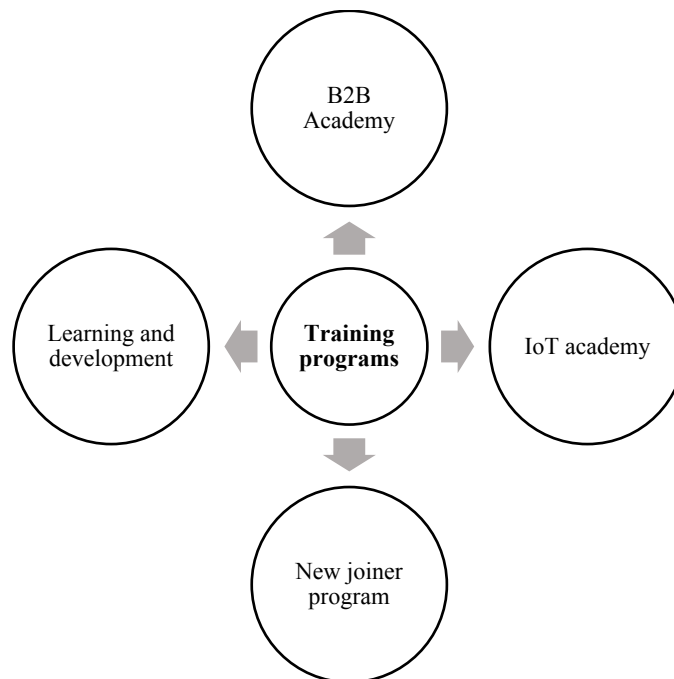


Figure 12. Human capital training programs.

Source: formed by author according the answers of respondents.

The research results showed that new joiner training programs are used as a part of the on boarding process as well as continued training programs aimed to further develop specialists and mid/upper management employees. As well participants mentioned that organization has learning and development programs for employees. All L&D programs start in synergy with the on boarding process. They have integrated learning plans for first 90 days and after the trial period continue L&D activities in all employees work cycle. Other participants mentioned IoT Academy and B2B Academy for human capital training. IoT Academy related to IT, engineering, programming, technical support personnel training, and development, as long as B2B Academy is related to sales and business development personnel training and development, furthermore, the company is in the process of establishing mutual trust and respect culture using the organizational changes management methodology from Adizes Institute. IoT academy basically helps our

trainees and newbie to gain knowledge about technologies the company is working with and B2B academy helps to grow potential sales professionals in B2B segment. The most talented students of these academies are employed and join international team and contribute to the implementation of the company's targets. Summarizing it could be stated that organization is using various human capital developments and training tools, which are modern and satisfying the needs of international organization.

Further the participants have been asked what procedures, licenses, intellectual property company are using in international market. The participants mentioned that for the intellectual property, the company is using software (CRM, Helpdesk...) as well as trademarked designs. Also company's technology and technological solutions are parts of intellectual capital. The respondents mentioned that have certain certificates that allow the export and sales of products in international markets and also confirms origins of used devices. In summary it could be stated that organization is using intellectual property- patents, copyrights, trademarks.

As well participants have been asked do they have established system for customers' management. All participants noted that they have company's own created system called KVS and this system is used for customers' management and evaluation.

The company is operating in international market and well known not only in Lithuania but also in international business areas. The participants have been asked what licenses, knowledge, achievements organizations are using in international market. According to participants opinion the organization meets the highest quality standards and is among the TOP3 largest manufacturers of telematics solutions in the world, repeatedly awarded as a TOP employer of Lithuania and this information and achievement is shared in international markets as well. One more achievement is winning the Industry 4.0 Star 2020 awards in the category of large manufacturing companies.

The last question was related to what models are used to evaluate and manage intellectual capital (Figure 13).

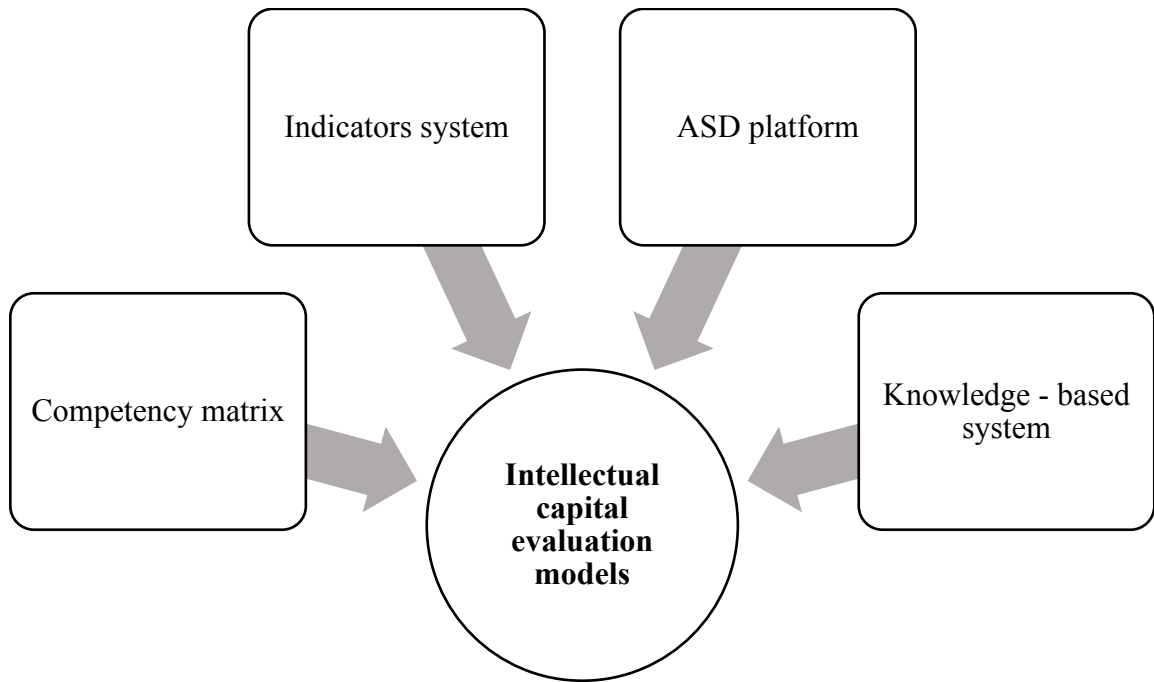


Figure 13. Intellectual capital management and evaluation models.

Source: formed by author according the answers of respondents.

The most popular model is competencies matrix model used to evaluate and identify learning and development needs for our human resources which are part of the intellectual capital. But the participants mentioned that they could provide information only related to human capital and outlined that are using various indices system which help to evaluate intellectual capital from human capital perspective by collecting human capital data and measuring indicators. They use data about employee’s knowledge base and competencies, employees rotation index, number of managers, the time and expenses for trainings, average length of time employees stays in the company. Having these indicators helps company to track changes and make necessary decisions to improve the situation. Also they have evaluation system for sales persons and technical support engineers, which is related to customer feedback. Moreover inside the company have ASD platform where can evaluate colleagues for they created value. Also has been noted that intellectual capital is measured by the calculation of the contribution of human assets held by the company divided by salary expenditures, additionally, knowledge-based measurements are held periodically for a different type of employees and using different types of strategies, i.e. tests, practical sessions, furthermore competencies based levels based on the different type of training passed and results achieved within a predefined period.

Summarizing human resources participants interviews results it could be stated that participants understand and could reveal intellectual capital main features and also detail the

intellectual capital structure elements. As well participants clearly defined the main intellectual capital benefits and advantages to the international company's activities. The research results showed that organization is using various intellectual capital evaluation and management models but they are more related to human capital.

3.2. Executives of organization results analysis

This part presents the results of executives of organization interviews related to intellectual capital management and evaluation. The first question was related to the activities of organization and participants have been asked evaluate the market where the company is operating and what is the competition level.

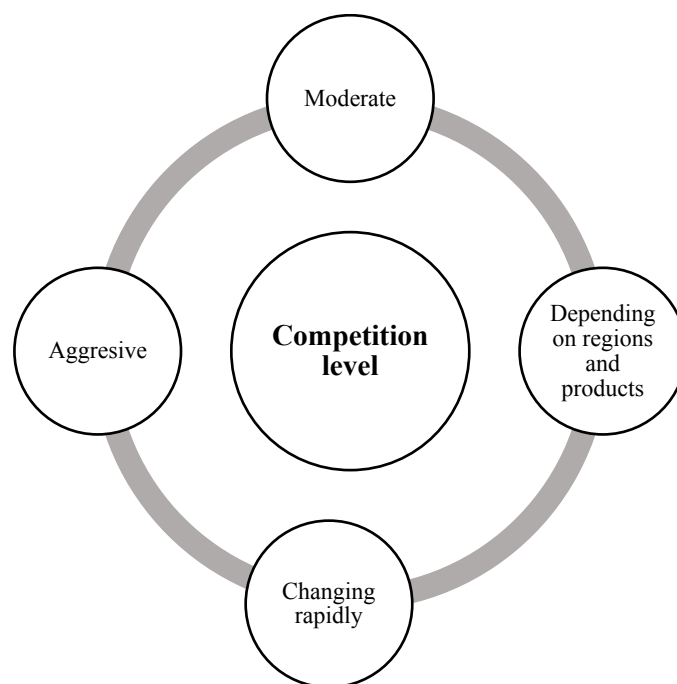


Figure 14. The competition level in market.

Source: formed by author according the answers of respondents.

According to research results it could be stated that competition level in market is aggressive, moderate, rapidly changing and depending on regions and offered products or solutions. The participants mentioned that organization has innovation and research department and main aim is to find technologies which will help to offer remote monitoring solutions for health and develop gadgets which will do that. Competition is aggressive; every one trying to get patents and offer unique solutions. The market is changing rapidly together with new medical technologies that are being invented. In the Medical Devices field there are more than 100 times bigger corporations which are operating and manufacturing similar products, competition is high.

It depends on the product and as well as on the technology or invention organizations are trying to adapt. The participants mentioned that have operational marketing teams which is constantly analyzing competitors. In addition, are constantly organizing client questionnaires regarding their needs. Moreover, the organization has B2B sales teams which is constantly working with clients and accompanying them in their global products. On daily bases using own developed CRM where every client has his profile and history of the cooperation with every client. Information about every client is renewed constantly by sales person responsible for the client. Regarding the competition level and according to analysis, the participants is calling it moderate, because they are not struggling to sell products, but must have features like flexibility, development speed, device quality, process effectiveness, ISO standardization to be more appealing to the clients. The main areas of competition in Europe and North America are device functional features and device quality. In less evolved regions the main competition is price. In summary it could be stated that market is very competitive, there is a lot different size competitors, clients demands are very different and the organizations have all the time analyze the clients and market needs.

The participants have been asked how the intellectual capital of organization can be defined.

Table 6

Intellectual capital concept description

Respondent Code	Intellectual capital definition
EC1	<i>We have intellectual property department and people working in this department is responsible for patents of devices we are creating, Human Resources department responsible for motivation system, skills development, trainings.</i>
EC2	<i>Intellectual capital of organization is growing and it grows not like step by step it grows with a huge Olympic long jumps especially during last 3-4 years.</i>
EC3	<i>Intellectual capital of organization is the current knowledge, ability to learn new things, ability to create new things of each individual person within the organization, which forms the intellectual capital of whole organization.</i>
EC4	<i>From the know-how of market and products, all operating rules to the culture of communication and leadership.</i>
EC5	<i>I would define the intellectual capital as totality of factors that lead company to constant growth: competent human resources, teamwork, technological evolvement, product features, research and development know-how, effective processes, functional organizational structure, long-term partnership with clients, internal systems adapted and fast tuned to process changes.</i>
EC6	<i>It is knowledge and experience how to make quality solutions in as more shorter time as possible. How to adapt company to global changes.</i>

Source: formed by author according the answers of respondents.

Comparing to HR participants the executives have defined intellectual capital concept more detailed and looking from organization's perspective. One of participants stated that they have intellectual property department and people working in this department is responsible for patents of devices we are creating, Human Resources department responsible for motivation system, skills development, trainings. Intellectual capital of organization is the current knowledge, ability to learn new things, ability to create new things of each individual person within the organization, which forms the intellectual capital of whole organization. Intellectual capital could also be defined from the know-how of market and products, all operating rules to the culture of communication and leadership. Some of participants define the intellectual capital as totality of factors that lead company to constant growth: competent human resources, teamwork, technological evolvement, product features, research and development know-how, effective processes, functional organizational structure, long-term partnership with clients, internal systems adapted and firstly tuned to process changes. It is knowledge and experience how to make quality solutions in as more shorter time as possible and how to adapt company to global changes. It can be stated that intellectual capital is defined outlining all this concept components and structure elements.

The executives have been asked what resources, i.e. knowledge, scientific achievements, intellectual property does your organization use in international market?

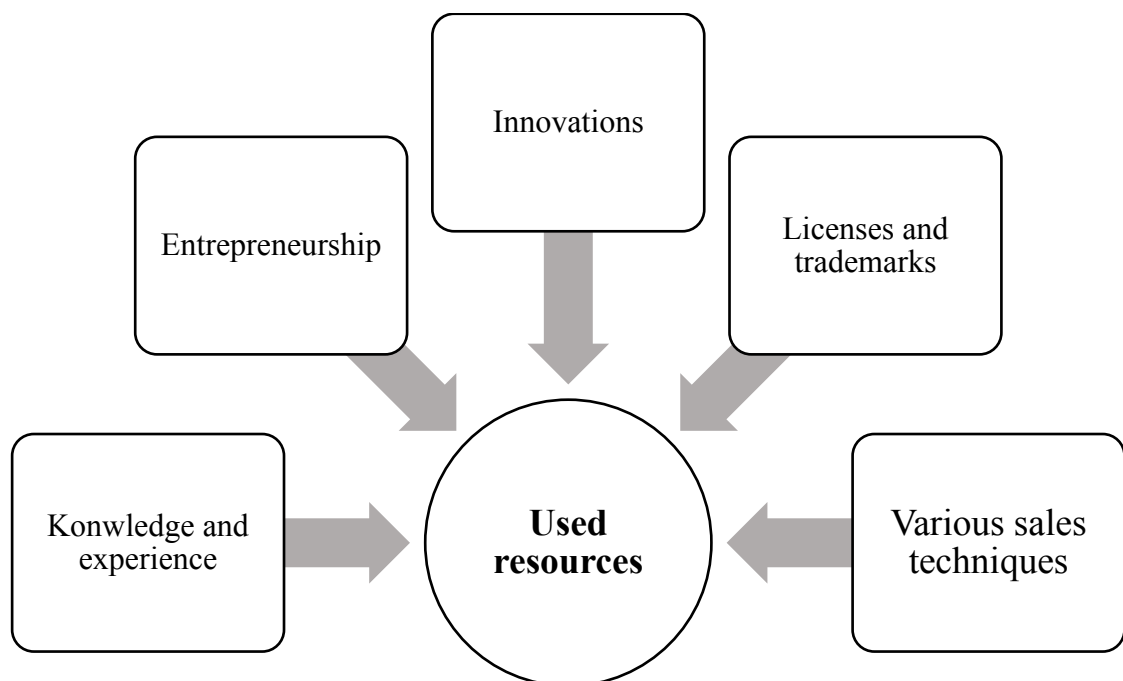


Figure 15. The resources in organization.

Source: formed by author according the answers of respondents.

Comparing to HR participants research results it could be stated that executives mentioned almost the same resources: knowledge, experience, entrepreneurship, innovation, understanding clients' needs, licenses, trademarks and etc. But as well it should be noted that executives more clearly explained used resources. In organization each particular department is working in synergy with another, each individual with its own knowledge adding value to the organization by delivering new ideas. As well as there are outside resources that organizations are collaborating with such as local universities, scientist, and medical institutions. Their knowledge and applied practices help to understand the current and future issues in the market that may arise. These are the resources are using to develop and create new features, devices and technologies. The participants mentioned that use research and development know-how, various sales techniques (SPIN, Cold call, negotiation and objection management), quality, environmental, occupational health and safety integrated management systems according to ISO. In addition, all products are developed by adopting CE, E-Mark, FCC certificates and other specific certifications for regional needs. At the moment, organization is in the process of trademark and some product functionality algorithms patenting. Moreover, they use human capital by increasing human resources competency in every area of organization activities.

The participants have been asked to describe the human capital: definition, features, advantages and disadvantages?

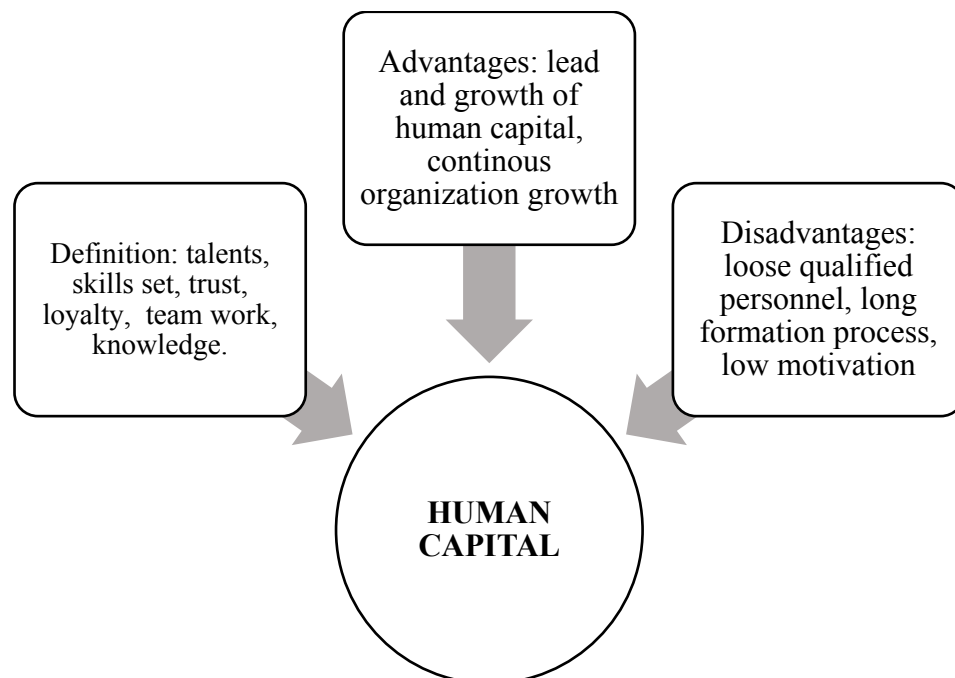


Figure 16. Human capital description.

Source: formed by author according the answers of respondents.

The participants outlined that the biggest capital is team, organization has Academy where are training new talents, this pandemic period gave and new possibilities how to integrate team remotely, when organization is doing international business it helps to understand advantages and disadvantages of used trainings program. Throughout the years have formed the culture of trust and respect and still forming that by growing from within with each current and new employee. For that to take action, every employee needs to learn and improve individually. Each employee have their own mindset, skill set, and for that to improve we need to invest to make those skills even stronger. By doing that there are several obstacles that might come, what if the employee leave, what if it won't bring the value that organizations expect. But at the end by investing in each person organization is forming its loyalty to the organization as well as delivering profit to the organization. The advantage that you can gain, learn and increase human capital, by teaching existing workers or getting new ones and training them. The disadvantage that you can lose human capital by losing workers, also poor culture can affect difficulty to teach and develop some workers. Other advantages could be: investing into human capital, means organization is investing into training of its human resources education, training, competence growth. This helps to improve workforce quality and self-esteem. Such investment returns in organization growth, which leads to bigger salaries and higher productivity. The main disadvantages: human capital formation process is long term and does not give returns fast, motivation is tended to fall down during periods of time, so it must be highly monitored.

The next question was which of human capital elements are affecting the international activities of organization?

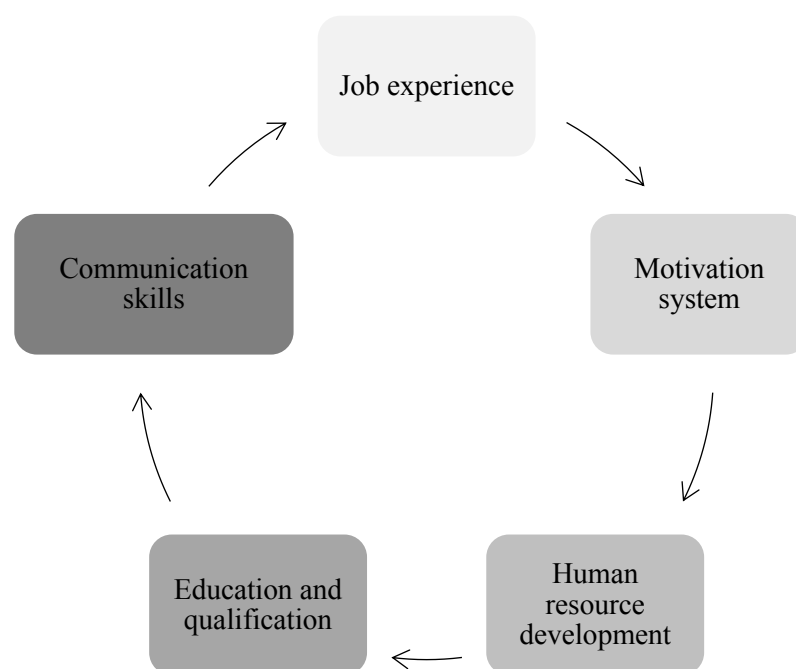


Figure 17. Human capital influence elements.

Source: formed by author according the answers of respondents.

The participants mentioned such elements of human capital: education, qualification, internal and external communication skills, job experience, motivation system. The main element which effects the activities of organization is the knowledge and understanding the international labor market, education and skills of each individual employee compared to other countries and competitors. Every country has their own "local minds" and labor market. Understanding that gives organization the advantage to improve organization activities and keep up with the latest trends. International activities of the organization are mostly affected by differences in culture and development stage of the regional unit of the organization. In addition, know-how spreading policy has huge impact on international activities of organization, because growing organization must ensure stable spread of know-how globally.

Participants also described the structural capital features. As respondents mentioned organizations are using hierarchical structure and ISO standards to ensure that everything organization is doing will be described in process map. Organizations have our policies, mission, vision and main value is mutual trust and respect. Also it should be mentioned that structure is clear written and shown in a picture, but it has a habit to change. Of course it's normal for growing company. Basically the message goes from top to bottom and vice versa from bottom to the top, here company tries to build mutual trust and respect culture, according to respondents it's very important to understand that when we talk about company structure. The participants mentioned that structural capital gives clarity to the organization of each and every process that needs to be done to make organization function properly. It gives processes under which organization can rapidly grow, on the other hand sometimes too much processes could slow down the growth, otherwise these processes needs to be worked out to the maximum that it would not raise any questions to anyone. Structural capital is changing and being adapted differently to each organization depending on what fits the best internally to make it work. The main structural capital advantages: if it is owned by organization, it can be easily adapted and tuned according to competitive surroundings in the market. In addition, it helps to predict and plan the results more efficient, because it is used by human capital as guidelines and standard for work on the daily bases, well developed requires less human capital and is more predictable then human capital. The main disadvantages: requires human capital to be used, must be developed constantly to adapt to changing surroundings and get more effective and efficient.

The participants also have been asked which of structural capital elements are affecting the international activities of organization. The respondents stated that strong and reliable organizational and technological capitals help for international activities. Communicate with external customers, competitors and understand changing markets is crucial. Without a structure

it could be disastrous and even may harm the organization. That is why there has to be a structure and processes on how all the representation and communication done internationally and locally. Communicating with customers, partners, employees internationally - all of these processes must have centralized structure in organization. Structural capital should be accessible internationally; it must have security levels to maintain information security, accessibility and user role management. In addition, it affects international activities by giving guidelines globally to human capital in an under stable way to achieve effectiveness and efficiency. The more effective and efficient structural capital is, the better overall performance organization reaches.

The research results helped to find out how participants understand the customer capital. According to participants the customer capital is described as one of the most important for the organization. This is organization face and position which organization delivers to the customer. From this comes customer loyalty to the organization and it brings more additional value against the competitor. What organizations represent consists of various aspects such as customer support, service, communication, product we provide, ability to solve particular problem and help to grow. At the end how you will work with the customer will generate you profits and revenues. But sometimes it could turn against the organization if there are no structure and definition of target markets and customers. Customer capital is the contribution of current and future revenues from relationship with clients and effective and efficient customer relationship must be long-term for revenue to be predictable. The advantages: long-term partnership leads organization to stay highly competitive in the market. The disadvantages: customer cannot be directly controlled, every step towards long partnership must be obtained step by step by assuring technical support, high quality of goods, sales techniques, knowledge of client's problems to turn them into opportunities, flexibility and so on. It takes a lot of time and human capital resources.

The last questions have been related to what indicators and models organizations are using for international capital measurement and management. The participants detailed that in organizations they are tracking satisfaction of services, the best evidence of that – organizations have strong customer base. Also the participants mentioned financial indicators which are used for intellectual capital evaluation: annual turnover, turnover per customer. Other used indicators: customer levels of partnership, VIP partners quantity, sales managers quantity, KPI's for employees, accountancy, balance sheets, different cuts of analysis from our CRMs and databases by countries, regions, continents, sales groups, sales persons.

Summarizing the executives interviews results it could be stated that executives more clearly and detailed explained the overall intellectual capital concept and features, also the affect to international organization activities. The intellectual capital evaluation and management models have been analyzed and reviewed from all organization activities and also outlined more complex

intellectual capital evaluation indicators system, covering not only human resources management, but also financial data and international market activities.

3.3. Intellectual capital management solutions

Summarizing the research results it could be stated that constant market competition is one of the essential conditions for organizations to change and search the optimal ways to increase operational productivity. In a dynamic and complex market, it is clear that competition for material resources, which often have only a short-term effect, is no longer a significant source of competitive advantage. Today, the emphasis is on intellectual competitiveness, when one of the most important resources available in organization is the intellectual capital. The strategic management of an organization, the strategic decisions made by employees based on the latest knowledge and experience, are often described as the main tools for increasing the efficiency and effectiveness of the organization. The research results confirmed that intellectual capital management is vitally important in nowadays competitive market.

Increasing competition encourages companies to take measures to promote the efficiency of non-traditional companies, which could not only help to establish itself in today's market, but also ensure a long-term competitive advantage. In response to changing business conditions, the need for an organization's intellectual capital management has emerged. Intellectual capital management is one of the newest areas of management science that receives special attention as the business world moves into an age of knowledge where action is required in the new business environment. Effective management of intellectual capital can help ensure an organization's survival and prosperity in a new economy and international market.

The analysis of the research results and theoretical literature showed that intellectual capital and knowledge management are widely analyzed in various contexts, but theoretical and empirical research is often characterized by fragmentation. There is a lack of a scientifically based holistic approach that would reveal broader theoretical provisions that are relevant today. The result of the research is a theoretically based integrated research model that reveals a holistic approach to intellectual capital management, expands the boundaries of this capital management with strategic and knowledge management dimensions, whose purposeful management and interaction would allow other added value. Such proposed model takes into account current intellectual capital management situation in analyzed organization and also adds some points which could be improved. The research results showed that there is a lack of efficient communication between organization departments, each department is taking care and looking at intellectual capital management only from own department prospects and not evaluating and taking into account

overall organization situation. The organization has a wide range of various strategies and solutions which help to improve intellectual capital management and only some improvement proposals could be taken into account that to make management process more efficient and clear for all organization departments.

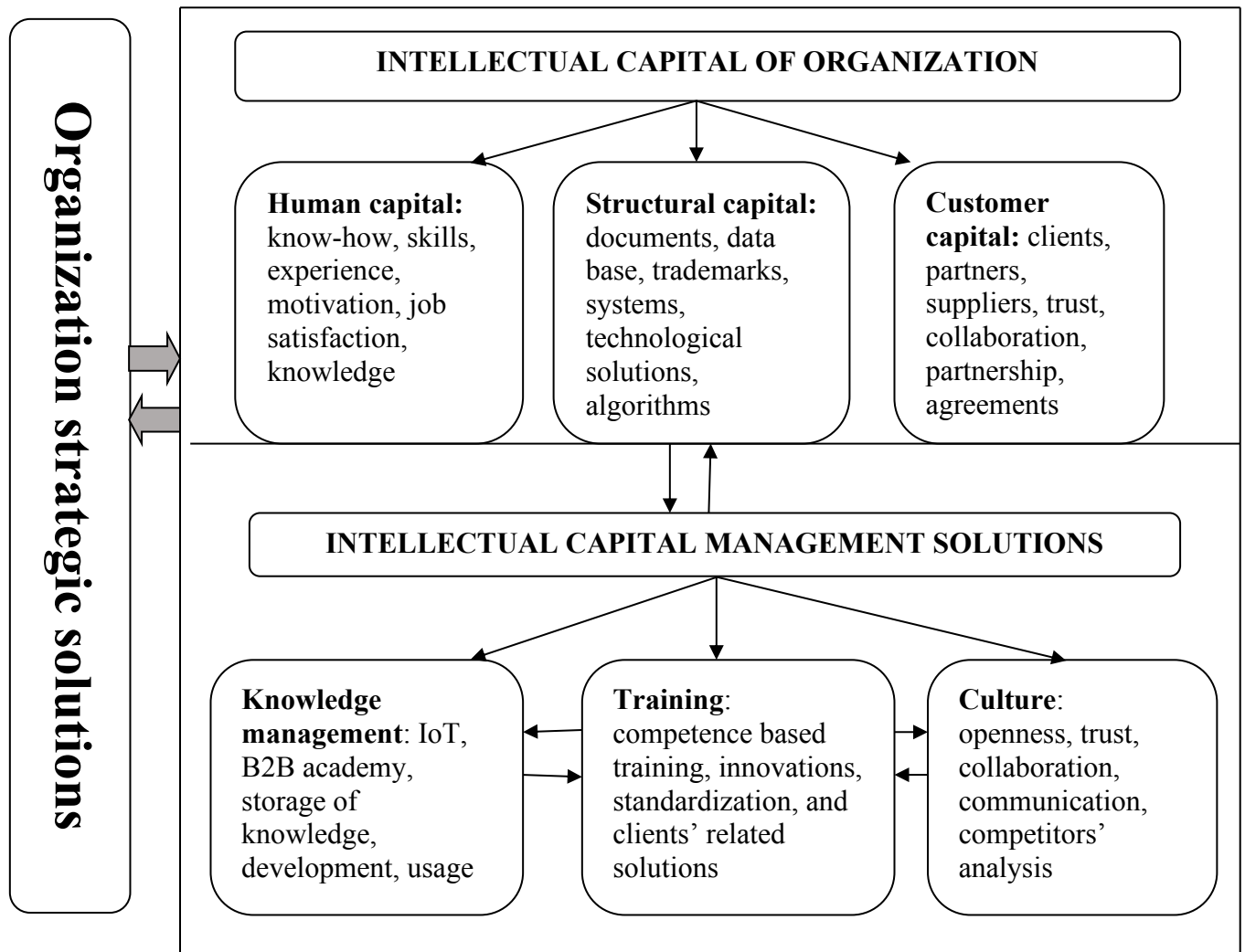


Figure 18. Intellectual capital management model.

Source: formed by author according the answers of respondents.

According to provided intellectual capital management model the strategic dimension is a system of actions and measures of an organization that defines how strategic decisions must be implemented. This component of the integrated model should have a direct impact on intellectual capital and knowledge management, the strategic development of the organization and the creation of added value. The intellectual capital dimension is the intangible resources of an organization, consisting of human, structural and relational capital. In terms of creating added value for an organization, the evaluation of individual components must be both individual and holistic. The knowledge management dimension includes knowledge management processes, culture, learning

by expanding and deepening employee competencies, information technology and information systems, usage of knowledge and skills, proper storage of knowledge, the expansion of IoT and B2B academies activities, the targeted management of which would allow the best realization of the organization's knowledge assets. As well organization should encourage openness and communication, trust and collaboration with suppliers, partners, also the analysis of competitors. In order to achieve the strategic development of the organization, which would ensure the creation of added value, an integral interaction of three dimensions is necessary identifying the individual components of the intellectual capital management model and comprehensively assessing their interrelationships, it will be possible to integrate the objectives of intellectual capital management with an effective system of knowledge management activities within the organization.

It is also recommended that organizations share information about planned innovations and technological solutions with all employees of the company, involving them in all intellectual capital management processes, starting with the assessment of knowledge needs and ending with knowledge management accumulation and protection. The solution to transferring knowledge management processes to open innovation can be to create a comprehensive knowledge base that is accessible to the organization, even if the organization is left by employees involved in innovation and knowledge transfer.

CONCLUSIONS

1. Increasingly, intellectual capital is becoming an essential factor in increasing the competitiveness of companies. Various studies have established a statistical relationship between organizations' intellectual capital and competitiveness. Despite the fact that the level of research on the relationship between intellectual capital and the company's competitiveness is considerable, there are theoretical, practical and methodological problems in assessing the impact of intellectual capital on the company's competitiveness in international market. Theoretical problems are formed by the fact that there is no well-established scientific attitude as to how intellectual capital should be defined; there is disagreement about what constitutes intellectual capital (dimensions and elements). Practical problems arise because, although companies are aware of the benefits of intellectual capital for their competitiveness, they do too little to assess and measure the impact of intellectual capital. Methodological problems arise due to the lack of uniformly recognized assessment methods, techniques and criteria on the basis of which the value of intellectual capital is effectively determined and the competitiveness of the company is effectively identified.
2. Intellectual capital can be treated as an intangible asset in a company, based on ideas, knowledge, knowledge exchange processes, etc., which increases the value of the company and creates a competitive advantage in the market. An essential feature of intellectual capital is intangibility. Intellectual capital is the sum of the dimensions of human capital, structural capital and consumer capital. Human capital is the dimension of intellectual capital, consisting of components such as knowledge, employee motivation, loyalty and dedication, experience, skills and competences, ingenuity and creativity, and competence. Structural capital is the dimension of intellectual capital, consisting of such components as databases, software, company strategy, organizational culture, organizational management structure, new concepts. Structural capital, unlike human capital, belongs to the company and remains in it, even after the employees leave. Consumer capital is the dimension of intellectual capital, consisting of such components as customer relations (value of relationships), relationships with suppliers, relationships with partners, longevity of relationships, consumer satisfaction.
3. After the survey, the connections between the dimensions of intellectual capital and the competitiveness of chosen company operating in international market were revealed. There were noticeable relationships between the dimensions of intellectual capital - human

capital and structural capital, between human capital and consumer capital. A positive link between human capital and firm competitiveness has been identified. All participants agree that intellectual capital affects organization activities in international market. It has been established that human capital would have a positive impact on competitiveness of companies; also the management of intellectual capital dimensions could create the trust, impact organization's growth trends, awareness of the brand. The ability of organizations to manage intellectual capital is crucial part of organization activities. The research identified that complex indicators system should be used for intellectual capital evaluation and management covering financial, human resources and customer relations indicators. Also it should be noted that executives more deeply and widely described intellectual capital concept and its impact on international activities.

RECOMMENDATIONS

- ✓ When selecting and hiring new employees, include an assessment of their level of ingenuity and creativity as an additional criterion for assessing the suitability of employees for work.
- ✓ To increase the ingenuity and creativity of human resources in courses, seminars, conferences, internal trainings of companies of the respective profile.
- ✓ Create a unified employee information system that would involve each employee and inform them not only about what long-term goals are being pursued, but also how they are being pursued.
- ✓ To motivate employees to contribute individually to the achievement of organizational and collective long-term goals through material (bonuses) and intangible (boards of honor, honors).
- ✓ Improve the management of human capital (human resources, their knowledge, skills, abilities and characteristics) through measures such as a unified human capital management and control system, clear criteria for evaluating human capital management (whether human capital management has performed its goals and objectives) , raising the competence of human capital management entities (managers) in this field by participating in courses, seminars, conferences, trainings of the respective profile.

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SUMMARY IN LITHUANIAN

TARPTAUTINIŲ ĮMONIŲ INTELEKTINIS KAPITALAS

Rimantė CAPARAITĖ-JASINKIENĖ

Magistro darbas

Globalaus verslo ir ekonomikos magistro programa

Vilniaus universiteto Ekonomikos ir verslo administravimo fakultetas

Darbo vadovas Doc. Dr. Virginijus Tamaševičius, Vilnius, 2020

SANTRAUKA

Darbo apimtis – 88 puslapiai.

Lentelių skaičius darbe – 6 vnt.

Paveikslų skaičius darbe – 18 vnt.

Literatūros ir šaltinių skaičius – 37 vnt.

Dauguma mokslininkų ir tyrėjų sprendžia tokius klausimus kaip: kas yra įmonės intelektinis kapitalas; kokie yra įmonės intelektualinio kapitalo komponentai; koks šių komponentų vaidmuo kuriant rinkos vertę; kaip nustatoma įmonės intelektualinio kapitalo vertė ir kt. Organizacijų intelektualinio kapitalo valdymo modeliai tampa vis sudėtingesni ir plačiau naudojami tarptautinėse kompanijose. Tačiau ryšys tarp įmonių intelektualinio kapitalo valdymo ir tarptautinės įmonės tebėra tolesnių mokslinių diskusijų objektas. Šios temos aktualumas yra intelektualinio kapitalo valdymo svarba ir poveikis tarptautinių kompanijų vertės kūrimo procese.

Darbo tikslas yra nustatyti, kaip valdomas intelektinis kapitalas „TELTONIKA IoT GROUP“ grupės įmonėse (6 įmonės Lietuvoje ir 18 įmonių užsienyje) ir parengti rekomendacijas bei pasiūlymus, kaip naudoti intelektinį kapitalą kaip papildomą efektyvų vertės kūrimo šaltinį.

Darbo problema: kaip intelektinis kapitalas ir jo valdymas praktiškai naudojamas kuriant vertę tarptautinėse įmonėse?

Tikslas: išanalizavus mokslinius požiūrius į įmonės intelektinį kapitalą ir sukūrus intelektualinio kapitalo valdymo tarptautinėse įmonėse vertinimo modelį, nustatyti intelektualinio kapitalo valdymo rekomendacijas.

Užduotys:

1. išanalizuoti tarptautinių kompanijų intelektualinio kapitalo apibrėžimus ir komponentus,

2. išnagrinėti intelektualio kapitalo komponentus valdymo požiūriu ir nustatyti intelektualio kapitalo valdymo modelius,
3. iširti intelektualio kapitalo valdymo svarbą „TELTONIKA IoT GROUP“ įmonėse,
4. parengti rekomendacijas ir pasiūlymus dėl būsimos praktinės intelektualio kapitalo kaip organizacinių išteklių integravimo į ilgalaikę „TELTONIKA IoT GROUP“ įmonių strategiją.

Darbe taikomi tokie **tyrimo metodai**: mokslinės literatūros, publikacijų ir straipsnių analizė, pusiau struktūruotas interviu su „TELTONIKA IoT GROUP“ įmonių vadovybe, pusiau struktūruotas interviu su „TELTONIKA IoT GROUP“ įmonės Žmogiškųjų išteklių skyriaus darbuotojais

Darbą sudaro trys dalys. Pirmoji dalis skirta teorinei intelektualio kapitalo analizei. Antroje darbo dalyje apibrėžta tyrimo metodika ir struktūra. Trečiojoje šio darbo dalyje, atliekamas intelektualio kapitalo valdymo tyrimas ir pateikiamos išvados.

Po apklausos buvo atskleisti ryšiai tarp intelektualio kapitalo dimensijų ir pasirinktos įmonės, veikiančios tarptautinėje rinkoje, konkurencingumo. Nustatytas teigiamas ryšys tarp žmogiškojo kapitalo ir įmonės konkurencingumo. Organizacijų gebėjimas valdyti intelektualinį kapitalą yra labai svarbi organizacinės veiklos dalis. Tyrimo metu nustatyta, kad intelektualio kapitalo vertinimui ir valdymui turėtų būti naudojama kompleksinė rodiklių sistema, apimanti finansinius, žmogiškųjų išteklių ir santykių su klientais rodiklius.

ANNEXES

Annex 1. Questions for employees of Human Resource Development department

1. How long are you working in international company?
2. What are your functions in organization?
3. Could you please describe the main features of intellectual capital?
4. Please describe how intellectual capital is affecting the company's activities in international market.
5. In your opinion how human capital could affect the international activities?
6. Does your organization have human capital development programs, procedures? How human capital is used in international market activities? Please provide samples.
7. What procedures, licenses, intellectual property your company are using in international market?
8. Do you have established system for customers management? Please provide samples.
9. What licenses, knowledge, achievements your organizations are using in international market?
10. What models are used to evaluate intellectual capital? What models are used for intellectual capital management?

Annex 2. Questions for Executives of organization

1. What services are you providing? Please describe in short, the main features of your business.
2. How long are you working in international market?
3. How are you evaluating the market where the company is operating? What is the competition level?
4. How can you define the intellectual capital of organization?
5. What resources, i.e. knowledge, scientific achievements, intellectual property does your organization use in international market?
6. Could describe the human capital: definition, features, advantages and disadvantages?
7. Which of human capital elements are affecting the international activities of organization?
8. Could describe the structural capital: definition, features, advantages and disadvantages?
9. Which of structural elements are affecting the international activities of organization?
10. Could describe the customer capital: definition, features, advantages and disadvantages?
11. Which of customer capital elements are affecting the international activities of organization?
12. What indicators and models you are using for international capital measurement and management?

Annex 3. Answers of Respondent HR1

1. How long are you working in international company?

2 years and 2 months

2. What are your functions in organization?

Currently leading learning and development (training and educational) initiatives within the company group. For approx. 2 years I was responsible for full recruitment cycle and employee life cycle (onboarding to exit) of one department within the company.

3. Could you please describe the main features of intellectual capital?

As far as I'm aware, the intellectual capital of a company is all the knowledge, experience and know-how (through employee competencies, patents, trademarks, in databases etc.), policies (incl. mission, vision), processes (incl. training and development), procedures, brand, contracts and agreements.

4. Please describe how intellectual capital is affecting the company's activities in international market.

Intellectual capital is probably an important determinant of a company's overall success in international market, affecting it's growth, profitability and competitiveness. Since in the most simple terms intellectual capital is knowledge and information stands to reason that in the ever more globalized market information is power.

5. In your opinion how human capital could affect the international activities?

Since it is without a doubt ideas and intellect that start and build successful companies from the ground up, human capital and knowledge are the most important assets providing added value to modern companies. To stay competitive in the globalized market it is important to hire people with the right competencies and to invest in the continued learning and development of these people. The human capital can only advance and add value to international activities.

6. Does your organization have human capital development programs, procedures? How human capital is used in international market activities? Please provide samples.

Human capital, being one of the key assets, help companies to adapt to changing business needs. For example, as Teltonika expanded further outside European market, it made great investments into local human capital which is successfully opening/growing new markets. In Teltonika, we have comprehensive new joiner training programs as a part of the onboarding process as well as continued training programs aimed to further develop specialists and mid/upper management employees.

7. What procedures, licenses, intellectual property your company are using in international market?

I am not sure about procedures and licenses. As for the intellectual property, we are using our software (CRM, Helpdesk...) as well as our trademarked designs. Our development procedures for our employees worldwide are mostly the same.

8. Do you have established system for customers management? Please provide samples.

Yes, we have our own developed CRM system called KVS.

9. What licenses, knowledge, achievements your organizations are using in international market?

As mentioned in question 7, I am not sure about procedures and licenses. As for the intellectual property, we are using our software (CRM, Helpdesk...) as well as our trademarked designs. Our development procedures for our employees worldwide are mostly the same.

10. What models are used to evaluate intellectual capital? What models are used for intellectual capital management?

We have competencies matrix model used to evaluate and identify learning and development needs for our human resources which are part of the intellectual capital. I'm sure we have more models I have not encountered in my direct work.

Annex 4. Answers of Respondent HR2

1. How long are you working in international company?

More than 2,5 year

2. What are your functions in organization?

To help with talents attraction and development

3. Could you please describe the main features of intellectual capital?

The value which is defined as organization's employee knowledge, skills and other.

4. Please describe how intellectual capital is affecting the company's activities in international market.

Increases competitiveness

5. In your opinion how human capital could affect the international activities?

Human capital can help to increase organization's income in international environment

6. Does your organization have human capital development programs, procedures? How human capital is used in international market activities? Please provide samples.

No we don't, but now we are creating ones. For example - Sales training program for sales persons in other international market offices.

7. What procedures, licenses, intellectual property your company are using in international market?

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8. Do you have established system for customers management? Please provide samples.

Yes, it is called "KVS"

9. What licenses, knowledge, achievements your organizations are using in international market?

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10. What models are used to evaluate intellectual capital? What models are used for intellectual capital management?

Now we are not using like general intellectual capital evaluation models, but we are creating competency assessment models. Also we have evaluation system for sales persons and technical support engineers, which is related to customer feedback. Moreover inside the company we have ASD platform where we can evaluate colleagues for they created value.

Annex 5. Answers of Respondent HR3

1. How long are you working in international company?

I am working at Teltonika for about 8 and a half years

2. What are your functions in organization?

Currently I am responsible for two main areas at Teltonika IoT Group Human Resources Development Division.

These two main areas are:

Succession planning and internal career;

Performance management (Competencies based evaluation and etc.).

3. Could you please describe the main features of intellectual capital?

Intellectual capital is the value of organization's employee knowledge, skills, business training or any proprietary information that may provide the company with a competitive advantage. Intellectual property (patents, licenses, management and marketing experience, technology, data networks and databases) is also one of the elements of the intellectual capital.

4. Please describe how intellectual capital is affecting the company's activities in international market.

Intellectual capital or intellectual resources is the main element for reaching company's vision and goals. So strong intellectual resources base (databases, technology, brand, employees skills, training base, management experience) helps to broad market with necessary devices portfolio at the right time.

5. In your opinion how human capital could affect the international activities?

Human capital as a part of intellectual capital is an instrument to reach company's goals. So the stronger and more innovative instrument we have, the easier and faster way we may reach our goals.

6. Does your organization have human capital development programs, procedures? How human capital is used in international market activities? Please provide samples.

Our company has learning and development programs for employees. All L&D programs start in synergy with the onboarding process. We have integrated learning plans for first 90 days and after the trial period we continue L&D activities in all employees work cycle. And as I have mention in 5th answer - human capital helps us to fulfill our vision and reach goals. For example our sales team works worldwide, we have sales teams in six continents. Due to that we are closer to our clients and are able to help to solve their business problems faster.

7. What procedures, licenses, intellectual property your company are using in international market?

Our technology and technological solutions are parts of our intellectual capital.

We have certain certificates that allow the export and sales of our products in international markets and also confirms origins of our devices. We have our brand as a part of intellectual capital also.

8. Do you have established system for customers management? Please provide samples.

Yes, we have our own system (KVS). In general KVS is our CRM system.

9. What licenses, knowledge, achievements your organizations are using in international market?

N/A

10. What models are used to evaluate intellectual capital? What models are used for intellectual capital management?

I could give the answer only from HR side. We may help to evaluate intellectual capital from human capital perspective by collecting human capital data and measuring indicators.

So from HR side we have data about employees knowledge base and competencies, employees rotation index, number of managers, the time and expenses for trainings, average length of time employees stays in the company. Having these indicators helps company to track changes and make necessary decisions to improve the situation.

Annex 6. Answers of Respondent HR4

1. How long are you working in international company?

12 years

2. What are your functions in organization?

Sales personnel development: create and execute sales training, proceed with the guidelines of the management of sales processes, lead the B2B Academy.

3. Could you please describe the main features of intellectual capital?

Intellectual capital refers to the intangible assets, however, used to create value by using human resources, employees' expertise, technological knowledge, create and manage processes, as well as to manage changes in the organization.

4. Please describe how intellectual capital is affecting the company's activities in international market.

In fact, our company is related mainly just with an international market, intellectual capital effects expansion by establishing brand new international branches, hiring high competence specialists, furthermore adopting and creating actual and specific technological equipment according to the different economic situations as well as different cultural aspects.

5. In your opinion how human capital could affect the international activities?

The ones who create an intellectual property are humans, accordingly, an impact on international markets by HR is very significant (competencies, know-how, qualification and, etc.)- starting from research and development capabilities to create and develop new solutions, back-office services capabilities to administrate, look for new talents, and ending with the delivery of the solutions to the market by sales divisions.

6. Does your organization have human capital development programs, procedures? How human capital is used in international market activities? Please provide samples.

Yes, the most well-known programs established- IoT Academy and B2B Academy.

IoT Academy related to IT, engineering, programming, technical support personnel training, and development, as long as B2B Academy- related to sales and business development personnel training and development, furthermore, the company is in the process of establishing mutual trust and respect culture using the organizational changes management methodology from Adizes Institute.

7. What procedures, licenses, intellectual property your company are using in international market?

Quality management procedures (i.e. ISO standards), EU regulations.

Intellectual property- patents, copyrights, trademarks.

8. Do you have established system for customers management? Please provide samples.

Yes, the company has created its own CRM (Customers' Relationship Management) system, called- KVS.

9. What licenses, knowledge, achievements your organizations are using in international market?

We meet the highest quality standards, we are among the TOP3 largest manufacturers of telematics solutions in the world, repeatedly awarded as a TOP employer of Lithuania and we bring this to international markets as well.

10. What models are used to evaluate intellectual capital? What models are used for intellectual capital management?

Intellectual capital is measured by the calculation of the contribution of human assets held by the company divided by salary expenditures, additionally, knowledge-based measurements are held periodically for a different type of employees and using different types of strategies, i.e. tests, practical sessions, furthermore competencies based levels based on the different type of training passed and results achieved within a predefined period. I would say the model used to measure intellectual capital is holistic.

Annex 7. Answers of Respondent HR5

1. How long are you working in international company?

5 years

2. What are your functions in organization?

My functions in organization include full life cycle recruiting, company's events organization, various small projects related to HR.

3. Could you please describe the main features of intellectual capital?

It includes wide range of features: employee knowledge, competencies, trainings, work culture and ethics, customers and suppliers relations to the company, policies, processes, company's mission and vision, etc.

4. Please describe how intellectual capital is affecting the company's activities in international market.

I think it affects directly - especially if the company is international - then all the intellectual capital components (human, relational, structural) affect company's activities: from employees performance internationally to company's vision, mission, goals that are declared to the public. It can help increase company's brand awareness, reliability and trustworthiness.

5. In your opinion how human capital could affect the international activities?

I think it can be related to high level work performance of company's employees, professional competencies they are using while working with international clients. There might fit quote: "Satisfied customer is the best source of advertisement".

Also, in some way it can be related with employees satisfaction of their work, experience and knowledge they can share via social media, various international events, exhibitions, presentations. All these things build trust in the company.

6. Does your organization have human capital development programs, procedures? How human capital is used in international market activities? Please provide samples.

Our company already has two human capital development programs - IoT and B2B academies. IoT academy basically helps our trainees and newbies to gain knowledge about technologies we are working with and B2B academy helps to grow potential sales professionals in B2B segment. The most talented students of these academies are employed and join our international team and contribute to the implementation of the company's targets.

7. What procedures, licenses, intellectual property your company are using in international market?

Management System Certificates (ISO)

8. Do you have established system for customers management? Please provide samples.

We have created and developed our own CRM - we call it KVS.

9. What licenses, knowledge, achievements your organizations are using in international market?

Actually we are sharing all the achievements of our company (Our company was ranked among the TOP5 leading businesses in Lithuania; Most popular Lithuanian companies at the moment; our new solutions that are released; Lithuanian President's visit in our company; winning the Industry 4.0 Star 2020 awards in the category of large manufacturing companies, etc.)

10. What models are used to evaluate intellectual capital? What models are used for intellectual capital management?

Most popular, I guess, competencies matrix model, that are used evaluate almost all company's employees.

Annex 8. Answers of Respondent HR6

1. How long are you working in international company?

I have been working for 2 years in my company.

2. What are your functions in organization?

I'm responsible for new processes, regarding producing, implementation and moderation of its. Another function is to maintain the current processes and policies. Also i work with hiring procedures and recruiting.

3. Could you please describe the main features of intellectual capital?

I believe and of course from my perspective the main features of intellectual capital are ability to understand employees and customers (candidates) IQ and EQ. Both of them we could use to creative and improve the current know- how in the company.

4. Please describe how intellectual capital is affecting the company's activities in international market.

The same, I wonder, employees IQ and EQ could affect company's know-how, which is also could be implemented in international market and society.

5. In your opinion how human capital could affect the international activities?

In my opinion, the human capital could enhance performance indicators, which are related to better business results.

6. Does your organization have human capital development programs, procedures? How human capital is used in international market activities? Please provide samples.

In my company we have procedures which are include learning and education, performance procedures. Also we do have an annual research, which is related to how employees are satisfied in the company. Moreover, HR department do one on one meetings constantly.

7. What procedures, licenses, intellectual property your company are using in international market?

My company has know-how policy, also NDA contracts.

8. Do you have established system for customers management? Please provide samples.

Yes, we do have our internal CRM system.

9. What licenses, knowledge, achievements your organizations are using in international market?

The company has got ISO standards, many certifications and know - how of our devices.

10. What models are used to evaluate intellectual capital? What models are used for intellectual capital management?

I couldn't describe exactly how we are calling that model regarding intellectual capital, but we do evaluate profit and performance of our employees. Also in HR development field we evaluate the employees turnover. In addition we are planning to improve learning ROI system and others.

Annex 9. Answers of Respondent EC1

1. What services are you providing? Please describe in short, the main features of your business.

We are developers and makers of Telemedicine devices

2. How long are you working in international market?

Up to 10 years

3. How are you evaluating the market where the company is operating? What is the competition level?

We have Innovation and research department and main aim is to find technologies which will help to offer remote monitoring solutions for health and develop gadgets which will do that. Competition is aggressive, every one trying to get patents and offer unique solutions.

4. How can you define the intellectual capital of organization?

We have intellectual property department and people working in this department is responsible for patents of devices we are creating, Human Resources department responsible for motivation system, skills development, trainings

5. What resources, i.e. knowledge, scientific achievements, intellectual property does your organization use in international market?

All of mentioned, knowledge base, scientists experience

6. Could describe the human capital: definition, features, advantages and disadvantages?

Our biggest capital is our team, we have Academy where we are training new talents, this pandemic period gave and new possibilities how to integrate team remotely, when we are doing international business it helps to understand advantages and disadvantages of our trainings program

7. Which of human capital elements are affecting the international activities of organization?

education, qualification, Internal and external communication skills, Job experience, motivation system

8. Could describe the structural capital: definition, features, advantages and disadvantages?

We are using hierarchical structure and ISO standards to ensure that everything we are doing will be described in process map. We have our policies, mission, vision, our main value is mutual trust and respect.

9. Which of structural elements are affecting the international activities of organization?

Strong and reliable organizational and technological capitals helps for international activities

10. Could describe the customer capital: definition, features, advantages and disadvantages?

Most important is speed and quality and if you want keep good customer relationships you need to be close to offer quality service at fastest way.

11. Which of customer capital elements are affecting the international activities of organization?

Relation between organization and customer

12. What indicators and models you are using for international capital measurement and management?

We are tracking satisfaction of services, the best evidence of that - we have strong customer base who is working year by year with us and if you can create value and be value added partner they pay for that and it is investment which we control.

Annex 10. Answers of Respondent EC2

1. What services are you providing? Please describe in short, the main features of your business.

Internet of things. We're technology company which provides new solutions of IoT for the market.

2. How long are you working in international market?

4-5 years as a person. 22 as a company.

3. How are you evaluating the market where the company is operating? What is the competition level?

The market itself is huge - whole world with different segments we can work in. Competition is there but if we compare it with other business fields like - fashion industry, food industry and etc. i would say that competition ranks in the middle in this case.

4. How can you define the intellectual capital of organization?

Intellectual capital of organization is growing and it grows not like step by step it grows with a huge Olympic long jumps especially during last 3-4 years.

5. What resources, i.e. knowledge, scientific achievements, intellectual property does your organization use in international market?

All of mentioned, knowledge base, scientists experience

6. Could describe the human capital: definition, features, advantages and disadvantages?

At this time main advantage here i see as fast growing team, but at the same time it's a challenge to handle them.

7. Which of human capital elements are affecting the international activities of organization?

I don't know will it be the right answer but - growth of human recourse

8. Could describe the structural capital: definition, features, advantages and disadvantages?

Structure is clear written and shown in a picture, but it has a habit to change. Of course it's normal for growing company. Basically the message goes from top to bottom and vice versa from bottom to the top, here company tries to build mutual trust and respect culture, so in my opinion it's very important to understand that when we talk about company structure.

9. Which of structural elements are affecting the international activities of organization?

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10. Could describe the customer capital: definition, features, advantages and disadvantages?

We have different fields to work in and different client segments it's of course there.

Telematics - integrators, system integrators

Networks - distributors, value added distributors.

Telemedic - system integrators, distributors

11. Which of customer capital elements are affecting the international activities of organization?

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12. What indicators and models you are using for international capital measurement and management?

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Annex 11. Answers of Respondent EC3

1. What services are you providing? Please describe in short, the main features of your business.

We are operating in worldwide Telemedicine market. Developing, manufacturing and selling medical devices for home use and professional use. For example products such as Medical Lung ventilators for professional use, Smart watches which can detect Atrial Fibrillation.

2. How long are you working in international market?

7 years and 4 months.

3. How are you evaluating the market where the company is operating? What is the competition level?

The market is changing rapidly together with new medical technologies that are being invented. In the Medical Devices field there are more than 100 times bigger corporations which are operating and manufacturing similar products, competition is high. It depends on the product and as well as on the technology or invention we are trying to adapt.

4. How can you define the intellectual capital of organization?

Intellectual capital of organization is the current knowledge, ability to learn new things, ability to create new things of each individual person within the organization, which forms the intellectual capital of whole organization.

5. What resources, i.e. knowledge, scientific achievements, intellectual property does your organization use in international market?

In our organization each particular department is working in synergy with another, each individual with its own knowledge adding value to the organization by delivering new ideas. As well as there are outside resources that we are collaborating with such as local universities, scientist, medical institutions. Their knowledge and applied practices help to understand the current and future issues in the market that may arise. These are the resources we are using to develop and create new features, devices and technologies.

6. Could describe the human capital: definition, features, advantages and disadvantages?

Our biggest capital is our team, we have Academy where we are training new talents, this pandemic period gave and new possibilities how to integrate team remotely, when we are doing international business it helps to understand advantages and disadvantages of our trainings program

7. Which of human capital elements are affecting the international activities of organization?

The main element which effects the activities of organization is the knowledge and understanding the international labor market, education and skills of each individual employee compared to other countries and competitors. Every country have their own "local minds" and labor market. Understanding that gives you advantage to improve your own organization and keep up with the latest trends.

8. Could describe the structural capital: definition, features, advantages and disadvantages?
First of all structural capital gives clarity to the organization of each and every process that needs to be done to make organization function properly.
From organizational structure to simple function of an employee. It gives processes under which organization can rapidly grow, on the other hand sometimes too much processes could slow down the growth, otherwise these processes needs to be worked out to the maximum that it would not raise any questions to anyone. Structural capital is changing and being adapted differently to each organization depending on what fits the best internally to make it work.
9. Which of structural elements are affecting the international activities of organization?
What could affects it most is when organization have no structure on how to represent itself internationally and locally. Communicate with external customers, competitors and understand changing markets is crucial. Without a structure it could be disastrous and even may harm the organization. That is why there has to be a structure and processes on how all the representation and communication done internationally and locally. Communicating with customers, partners, employees internationally - All of these processes must have centralized structure in organization.
10. Could describe the customer capital: definition, features, advantages and disadvantages?
Customer capital I would describe as one of the most important for the organization. This is our face and our position which we deliver to the customer. From this comes customer loyalty to the organization and it brings more additional value against the competitor. What we represent consists of various aspects such as customer support, service, communication, product we provide, ability to solve particular problem and help to grow. At the end how you will work with the customer will generate you profits and revenues. But sometimes it could turn against the organization if there are no structure and definition of target markets and customers.
11. Which of customer capital elements are affecting the international activities of organization?
If you solve the particular problem of the customer - he might be grateful for life. That's one of the main elements by acquiring the loyal customer. Also as mentioned - customer

support, service, communication, product we provide, ability to solve particular problem and help to grow also adding up to the international activities.

12. What indicators and models you are using for international capital measurement and management?

If you solve the particular problem of the customer - he might be grateful for life. That's one of the main elements by acquiring the loyal customer. Also as mentioned - customer support, service, communication, product we provide, ability to solve particular problem and help to grow also adding up to the international activities.

Annex 12. Answers of Respondent EC4

1. What services are you providing? Please describe in short, the main features of your business.

Developing IOT solutions and manufacturing to B2B market.

2. How long are you working in international market?

21 year

3. How are you evaluating the market where the company is operating? What is the competition level?

Market is growing, and competition is medium, because of market growth.

4. How can you define the intellectual capital of organization?

From the know-how of market and products, all operating rules to the culture of communication and leadership.

5. What resources, i.e. knowledge, scientific achievements, intellectual property does your organization use in international market?

I guess all resources we are using.

6. Could describe the human capital: definition, features, advantages and disadvantages?

Human capital - knowledge and other skills held by company workers. The advantage that you can gain, learn and increase human capital, by teaching existing workers or getting new ones and training them. The disadvantage that you can lose human capital by losing workers, also poor culture can effect difficulty to teach and develop some workers.

7. Which of human capital elements are affecting the international activities of organization?

All. I don't think there is a difference between international or local business.

8. Could describe the structural capital: definition, features, advantages and disadvantages?

No, I don't know what you mean about structural capital.

9. Which of structural elements are affecting the international activities of organization?

No, I don't know what you mean about structural capital.

10. Could describe the customer capital: definition, features, advantages and disadvantages?

Customer capital - all the clients which trust you and willing to use your services in the future. Main feature that you need to build customer capital little by little, also it depends a lot on marketing of you or your products how quickly you can build it. Advantage/Disadvantage that by poor quality or communication you can increase/decrease your customer capital. It is like a reputation and brand value combined.

11. Which of customer capital elements are affecting the international activities of organization?

All of them.

12. What indicators and models you are using for international capital measurement and management?

None

Annex 13. Answers of Respondent EC5

1. What services are you providing? Please describe in short, the main features of your business.

Our company provides various IoT products (GPS tracking devices, IoT routers, Smart autonomous tracking devices and accompanying services such as GPS tracking, remote management and configuration software applications. In addition, our company provides electronic manufacturing services.

Main features of our business are B2B global sales of our products and services, distributing them through our regional offices, which we are constantly developing to be closer to our clients, global sales and technical support teams. In addition, one of the main features is unique products which are developed by our own R&D and manufactured in our own factories. Most important feature of our business is flexibility and speed to adapt to client needs by adapting our product features and manufacturing process to client requirements and give client the best solution as soon as possible.

2. How long are you working in international market?

We are working for over 20 years in global market.

3. How are you evaluating the market where the company is operating? What is the competition level?

We have operational marketing teams which is constantly analyzing competitors. In addition, we are constantly organizing client questionnaires regarding their needs. Moreover, we have huge B2B sales teams which are constantly working with clients and accompanying them in their global products. On daily bases we are using our own developed CRM where every client has his profile and history of the cooperation with every client. Information about every client is renewed constantly by sales person responsible for the client. Our CRM has a lot of reports for management and market analysis.

Regarding the competition level: According to our analysis, we prefer to call it - moderate, because we are not struggling to sell our products, but we must have features like flexibility, development speed, device quality, process effectiveness, ISO standardization to be more appealing to our clients. The main areas of competition in Europe and North America are device functional features and device quality. In less evolved regions the main competition is price.

4. How can you define the intellectual capital of organization?

I would define the intellectual capital as totality of factors that lead company to constant growth: competent human resources, teamwork, technological evolvement, product

features, research and development know-how, effective processes, functional organizational structure, long-term partnership with clients, internal systems adapted and fast tuned to process changes.

5. What resources, i.e. knowledge, scientific achievements, intellectual property does your organization use in international market?

We use research and development know-how, various sales techniques (SPIN, Cold call, negotiation and objection management), quality, environmental, occupational health and safety integrated management systems according to ISO. In addition, all our products are developed by adopting CE, E-Mark, FCC certificates and other specific certifications for regional needs. At the moment, we are in the process of trademark and some product functionality algorithms patenting. Moreover, we use our human capital by increasing our human resources competency in every area of our activities.

6. Could describe the human capital: definition, features, advantages and disadvantages?

Human capital is the totality of human resources' skills, experience, health and safety, quality assurance, competence, efficiency, effectiveness, loyalty, which has an impact on organizations economic situation by creation of value.

Main features: It is more social than economical, hard to calculate, depends on loyalty

Advantages: Investing into human capital, means organization is investing into training of its human resources education, training, competence growth. This helps to improve workforce quality and self-esteem. Such investment returns in organization growth, which leads to bigger salaries and higher productivity.

Disadvantages: Human capital formation process is long term and does not give returns fast, motivation is tended to fall down during periods of time, so it must be highly monitored.

7. Which of human capital elements are affecting the international activities of organization?

International activities of the organization are mostly affected by differences in culture and development stage of the regional unit of the organization. In addition, know-how spreading policy has huge impact on international activities of organization, because growing organization must ensure stable spread of know-how globally.

8. Could describe the structural capital: definition, features, advantages and disadvantages?

Structural capital is all the infrastructure, processes, databases and internal systems that enable human capital to function.

Features: Is owned by the organization, supportive not physical, enables human capital to function.

Advantages: If it is owned by organization, it can be easily adapted and tuned according to competitive surroundings in the market. In addition, it helps to predict and plan the results more efficient, because it is used by human capital as guidelines and standard for work on the daily bases. Well-developed requires less human capital and is more predictable than human capital.

Disadvantages: Requires human capital to be used, must be developed constantly to adapt to changing surroundings and get more effective and efficient.

9. Which of structural elements are affecting the international activities of organization?

Structural capital should be accessible internationally, it must have security levels to maintain information security, accessibility and user role management. In addition, it affects international activities by giving guidelines globally to human capital in an understandable way to achieve effectiveness and efficiency.

The more effective and efficient structural capital is, the better overall performance organization reaches.

10. Could describe the customer capital: definition, features, advantages and disadvantages?

Customer capital is the contribution of current and future revenues from relationship with clients.

Features: Effective and efficient customer relationship must be long-term for revenue to be predictable.

Advantages: Long-term partnership leads organization to stay highly competitive in the market.

Disadvantages: Customer cannot be directly controlled, every step towards long partnership must be obtained step by step by assuring technical support, high quality of goods, sales techniques, knowledge of client's problems to turn them into opportunities, flexibility and so on. It takes a lot of time and human capital resources.

11. Which of customer capital elements are affecting the international activities of organization?

Being closer to clients (distributing goods through regional offices) gives an opportunity to overcome cultural differences, give better technical support and develop long-term partnership with customers.

12. What indicators and models you are using for international capital measurement and management?

Annual turnover, turnover per customer, customer levels of partnership, VIP partners quantity, sales managers quantity, KPI's for employees, accountancy, balance sheets,

different cuts of analysis from our CRMs and databases by countries, regions, continents, sales groups, sales persons.

Annex 14. Answers of Respondent EC6

1. What services are you providing? Please describe in short, the main features of your business.

Hardware selling in B2B segment as a part for end user solution

2. How long are you working in international market?

12 years

3. How are you evaluating the market where the company is operating? What is the competition level?

Market is very complete, there is a lot different size competitors, clients demands are very different cause of this need big portfolio of solutions or understand very well what market is asking

4. How can you define the intellectual capital of organization?

It is knowledge and experience how to make quality solutions in as more shorter time as possible. How to adapt company to global changes.

5. What resources, i.e. knowledge, scientific achievements, intellectual property does your organization use in international market?

Organization is using all possible resources, one of them less other more. Main goal to try and to find best in each case. It is knowledge, experience, entrepreneurship, innovation, understanding clients' needs

6. Could describe the human capital: definition, features, advantages and disadvantages?

human capital is the abilities, opportunities, resources of a team of people that can improve all other resources. It is very flexible, could self-learning all the time. But could damage organization with not necessarily emotions and could make problems if some person leaving organization

7. Which of human capital elements are affecting the international activities of organization?

Languages, flexibility, knowledge of the culture, laws, rules internationally, self learning

8. Could describe the structural capital: definition, features, advantages and disadvantages?

It is working organization structure that allow working better and not slowing organization. It allow make decisions faster, allow people understand better responsibilities and capabilities. It could be to big and not clear that damage organization

9. Which of structural elements are affecting the international activities of organization?

Departmentation mostly affects international activities of organization

10. Could describe the customer capital: definition, features, advantages and disadvantages?

*It is customers database, profiles, description and contacts. Also history with organization.
It allows faster and better provide best service for customers, easier find new customers.
It could be subjective info depending on humans*

11. Which of customer capital elements are affecting the international activities of organization?

Customer profiles, contacts information

12. What indicators and models you are using for international capital measurement and management?

Success cases, customer profiles