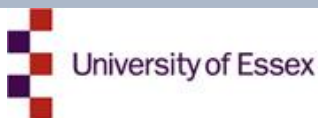


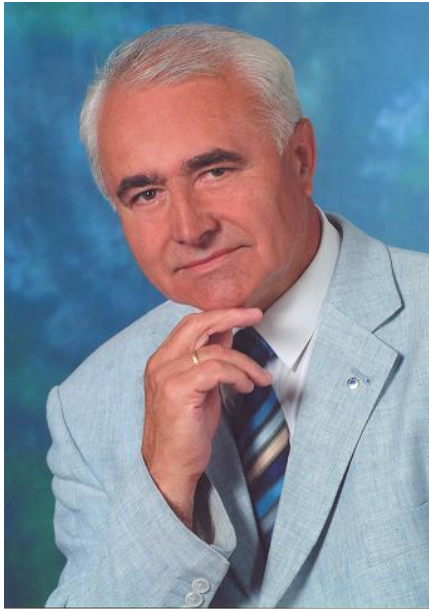
# ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

1(2)  
2013



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Dear readers,

It is my honor and pleasure to provide to your attention a regular issue of international scientific peer-reviewed journal devoted to a wide spectrum of interrelated issues directly affecting a path of our sustainable development.

Sustainable development, as the ultimate aim, is complex and can be achieved only through well-balanced implementation of sometimes conflicting activities. Until then, it remains a contentious issue how to tune interests of major stakeholders of sustainable development process. Business companies, which are driving force of economic growth, are seeking for profit, which is vital for their sustainable development. Military security, social safety and environmental stewardship are as well integral components of sustainable development, but they require financial means, which have to be collected through taxes from business companies. Hence right we encounter conflicting interests of sustainable development stakeholders. How to tune different interests avoiding natural tensions, how to recognize new phenomena and interests emerging during the era of information technologies and globalization – those issues still remain under harsh scientific and political discussion and, it seems, will be actively discussed during further several decades.

In order to come to mutually beneficial, wise and smart policies thorough discussion appears to be essential. Insights, opinions and worries of stakeholders of sustainable development are a coherent part of complex path to a more affluent, environment-friendly, secure and socially safe future. Let us all take a chance to contribute to our own future, and let us get immersed into discussion provided by the journal.

With best regards,

A handwritten signature in blue ink, consisting of stylized, flowing letters that appear to read 'V. Zahars'.

**VITOLDS ZAHARS**

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*Head of Department at Daugavpils University*

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## ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

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The *Entrepreneurship and Sustainability Issues* ISSN 2345-0282 (online) is a peer-reviewed journal, which publishes original research papers and case studies. It is international journal published cooperating with universities, social companies, consultancies and associations indicated on the cover of the journal. It is published quarterly.

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## ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

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## ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

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### TOWARD UNDERSTANDING RESOURCES, COMPETENCIES, AND CAPABILITIES: BUSINESS MODEL GENERATION APPROACH

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**Abstract.** Understanding internal sources of competitive advantage has become a major area of research in strategic management. Resources are a business's assets, capabilities are the ability to exploit its resources, and competency is a cross-functional integration and coordination of capabilities. But the problem of not understanding what is really meant by resources, competencies, and capabilities still arises. Toward understanding what is really meant, MEKTORY – business model generation competition case studies are analysed. The main purpose to develop a better understanding has reached. It can be stated that the overarching goal of strategic management and also business model generating is creating and capturing value for core stakeholders. Strategy is here defined as a series of goal-directed plans and activities that align a business's structure, culture, and resources with the opportunities and threats in its environment. The main implication of the current research is the understanding that resources are always means, competencies powers, and capabilities abilities. Methodologically the research is valuable used modern text analytics for an innovative way to present, and to garner deeper insight from text. It is recommended that further research should include evolutionary approaches, which are not explicitly used as a theoretical framework in strategic management. Further normative value research might investigate what should be the ownership values for successful companies.

**Keywords:** business model generation, capabilities, competencies, text analytics, resources, strategic management, values

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### 1. Introduction. A brief review of MEKTORY

MEKTORY is the acronym for Modern Estonian Knowledge Transfer Organization for You. It is an interdisciplinary intellectual and tangible innovation centre that actively engages companies, entrepreneurs, students, and faculty in project implementation. It has project expertise in three divisions; they are design and product development; mobile services and media; and business models. The divisions are all connected with each other by infrastructure, network and innovation projects. It works in a way that representatives of companies and companies' research and development employees work as consultants and experts together with supervisors from university who are responsible for project success. They are also mentors among scientists and alumni. Students are project team members working with equipment operators who assure operational safety. Performers in projects are post graduate- and PhD students, faculty and companies. It offers many benefits for companies, students, and faculty. It has global ambitions, and has partners like Aalto Design Factory (Aalto University), Swinburne Design Factory (Swinburne University of Technology), University of South-Carolina, and International companies (Mitsubishi Motor Corporation, Ericsson Estonia, ABB Group Ltd, Samsung Electronics, and Electrolux).



## **1.1. Business Model**

Hunger and Wheelen (2011) describe the business model as a company's method for making money in the current business environment. In fact many different methods exist e.g. customer solutions model, multi-component system, advertising model, switchboard model, efficiency model, and time model. We choose the Business Model Generation approach of Osterwalder and Pigneur (2010) where a business model describes the rationale of how an organization creates, delivers, and captures value. The model was co-created by 470 strategy practitioners, from 45 countries. Their challenge was a simple, relevant, and intuitively understandable concept, while not oversimplifying the complexities of how enterprises function. They believed that a business model can best be described through nine basic building blocks that show the logic of how a company intends to make money. The nine blocks cover the four main areas of a business – customers, offer, infrastructure, and financial viability.

We focus in our paper on the most challenging building blocks, namely values, resources, and capabilities. It is obvious that enlightened, competent, professional ultimate owners know what results they want to have from the company in the long run – diverse personal, social, political, and economic values; they succeed in a dynamic environment only if they invest those same values (Wahl 2012). The “enlightened shareholder value” approach represents an attempt to strike a balance between shareholders' primacy and corporate stakeholders' interests (Andreadakis 2011; Hilb 2006; Pichet 2011). An ultimate owner is an institutional unit that is at the top of the ownership chain of an enterprise and is not controlled by any other institutional unit; they are ultimate controllers of the votes (La Porta *et al.* 1999). Business model generation is like a blueprint for formulating strategy to be implemented through programs, budgets, and procedures.

Resources are a business's assets, capabilities are the ability to exploit its resources, and competency is a cross-functional integration and coordination of capabilities. But the problem of not understanding what is really meant by resources, competencies, and capabilities still arises. The main purpose of this descriptive-explanatory research is to develop a better understanding concerning resources, competencies, and capabilities.

The present paper is organised as follows. Section 2, “Theoretical framework” begins by defining the key constructs that underscore the business model generation approach from a holistic perspective. Relevant theories and evidence relating to the constructs are reviewed. Section 3, “Research methodology” tells us about the philosophical considerations, research approaches, and research design. Section 4, “Data collection and analysis methods – techniques and procedures” explained used techniques and procedures of material and data collection into a case database. Technical findings, results, interpretative analysis of meaningful relationships are explained. Section 5, “Implications” covers discussion about general implications. Section 6, “Conclusions and recommendations” concludes by describing the main insights and locating potential for the further research.

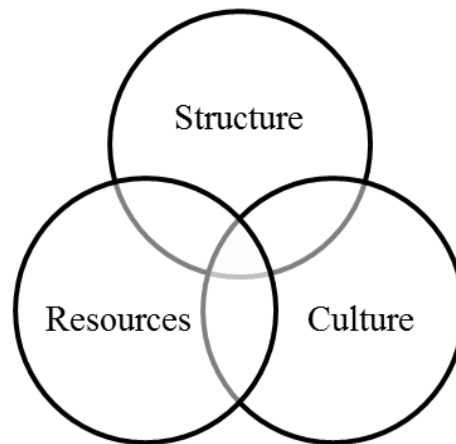
## **2. Theoretical Framework**

### **2.1. Resources, competencies, and capabilities**

Understanding internal sources of competitive advantage has become a major area of research in strategic management. Strategic management is a set of managerial decisions and actions that determines the long-run performance of a corporation. This is a process for internal and external environment scanning and strategy formulation, implementation, and evaluation. The overarching goal of strategic management is creating and capturing values. Strategy is defined as a series of goal-directed plans and actions that align a business's structure, culture, and resources with the opportunities and threats in its environment (Figure 1).

Resources are a business's tangible and intangible assets, capabilities are the ability to exploit its resources, and competency is a cross-functional integration and coordination of capabilities (Hunger and Wheelen 2011). With identifying and developing an organization's resources and competencies deals organizational analysis - internal scanning. This analysis of strengths and weaknesses is focused on organizational structure (chain of command), corporate culture (behaviour, attitudes, norms, value judgments, and values), and organizational resources (assets, skills, knowledge). The ability to sense and then seize new opportunities, and to reconfigure and protect knowledge

assets, competencies, and complementary assets is dynamic capability (Augier and Teece 2009), achieving a sustained competitive advantage needs dynamic capabilities.



**Fig.1.** Strategic alignment of structure, culture, and resources

*Source:* Author's illustration

The key resources building block by Osterwalder and Pigneur (2010) describes the most important assets required to make a business model work. Every business model requires key resources. These resources allow an enterprise to create and offer a value proposition, reach markets, maintain relationships with customer segments, and earn revenues. The value configuration describes the arrangement of activities and resources that are necessary to create value for the customer. Different key resources are needed depending on the type of business model. Some business models call for financial resources and financial guarantees, such as cash, lines of credit, or a stock option pool for hiring key employees. Key resources can be owned or leased by the company or acquired from key partners.

Goergen (2012: 116) argues that “classic economic theory predicts that a country’s economic growth depends on its initial allocation of resources... However, there are also three theories that link financial systems to economic growth and competitive advantage in particular industries... These theories are the information collection theory, the renegotiation theory, and the corporate governance theory.” Licht *et al.* (2005) argue that culture is the true driver behind differences in corporate governance across countries. Hall and Soskice (2001) found that economic systems are not just about investments in assets and technologies, but also about investments in human capital such as the development of workers’ skills and competencies. La Porta *et al.* (1997) mentioned that according to theory about the quality of law, the main driver of economic growth is investor protection. Other factors driving economic growth include trust and religion (La Porta *et al.* 1997).

The mostly applied theoretical approach is still the resource-based view (RBV) of the firm (Barney 2001). By Hack *et al.* (2012) drawing on Wernerfelt, the resource-based view provides the perception of corporations as a broader set of resources from a strategic perspective, i. e. a basis to address key issues when generating the corporation’s strategy. Regarding the specification of the resource itself, Wernerfelt understands by a resource anything that can contribute to a strength or weakness of a given corporation (Wernerfelt 1984). Barney takes this a step further and provides a more detailed notion of the resources of a firm. Accordingly, to the potential resources of a particular firm he allocates all assets, capabilities, organisational processes, firm attributes, information, knowledge etc., i. e. all potential that, in turn, when controlled by this firm allows it to recognise and implement strategies that improve the firm’s efficiency and effectiveness (Barney 1991). Regarding differentiation of resources, there can be differentiated tangible, for instance, machinery, personnel etc., and intangible resources, such as knowledge, brand names etc. (Wernerfelt 1984). This categorization can be enhanced by bringing in the distinction of resources, as provided by Barney. In this respect, Barney differentiates between physical capital resources (technology, equipment, geographical location of a firm, and its access to raw materials), human capital resources (experiences, relationships, and insights of individual managers and employees in a firm), human

resources are crucial in knowledge-intensive and creative industries, and organisational capital resources (a firm's formal reporting structure, its planning, controlling, coordination systems, as well as information relations among groups within a firm and between a firm and those in its environment (Barney 1991). As emphasised by Wernerfelt, resources can generate profits to a specific firm (Wernerfelt 1984). With regard to competitive advantage, Barney differentiates between competitive advantage and sustained competitive advantage, where the former emerges when a firm is implementing a value leading towards a strategy that cannot simultaneously be implemented by any current or potential competitor. The latter one implies the same attributes as the former one, but in contrast to this presupposes that a particular current or potential competitor is unable to duplicate the benefits of this particular strategy implemented by a firm (Barney 1991). What is of essential importance in this context is the identification of resources that carry with them potential to generate competitive and sustained competitive advantage. Following Barney, the focus should be concentrated on strategically crucial resources that are valuable, rare, imperfectly imitable and non-substitutable. Provided that a given firm possesses such resources, it is therefore able to develop resource-based advantages that can be sustained over time (Barney 1991).

But the resource-based view has a key shortcoming, it works well in a static environment, but today's world is extremely dynamic, therefore the concept of dynamic capabilities (DC) arose. Helfat *et al.* (2007) suggest that the transformation of an organisation through additions, deletions, or modifications to its resource base entails processes for achieving these changes. It is not enough that we know what organisations do, which markets they enter, which products they introduce, how fast they grow, which firms they acquire, but also how they do it. Hunger and Wheelen (2011) defined a competency as a cross-functional integration and coordination of capabilities. Regarding differentiation of competencies, there can be differentiated discretionary-, realization, and control competence. Core competencies are a collection of competencies that cross divisional boundaries. Core competencies are widespread throughout the corporation and are something the corporation does exceedingly well. Distinctive competencies are core competencies that are superior to those of the competition. By Danneels (2002) contributes product innovation to the renewal of the firm through its dynamic and reciprocal relation with the firm's competences. Products are created by linking competences relating to technologies and customers.

Hack *et al.* (2012) find that a clearer notion of resources can be generated by confronting the perceptions of resources and capabilities, as outlined by Amit and Schoemaker (1993). By drawing on their observations, capabilities refer to a firm's capacity to deploy resources by incorporating organisational processes and are generated by a firm to provide enhanced productivity of its resources as well as a strategic flexibility and protection for its final product or service. Moreover, in contrast to resources, capabilities are based on developing, carrying, and exchanging information through the firm's human capital (Amit and Schoemaker 1993). Capabilities, like resources, can be differentiated as well. Amit and Shoemaker (1993) distinguish between tangible or intangible capabilities and to the bundle of capabilities allocate information-based organisational processes and intermediate goods and invisible assets. Dynamic capabilities directly impact the competencies and resource base of the firm, which in turn is the source of the firm's competitive advantage (Ambrosini and Bowman 2009).

The key activities building block by Osterwalder and Pigneur (2010) describes the most important things a company must do to make its business model work. Every business model calls for a number of key activities. These are the most important actions a company must take to operate successfully. Like key resources, they are required to create and offer a value proposition, reach markets, maintain customer relationships, and earn revenues. A capability is the ability to execute a repeatable pattern of actions that is necessary in order to create value for the customer. Like key resources, key activities differ depending on business model type. Key activities can be categorized as production-, problem solving-, platform-, network key activities. Production activities relate to designing, making, and delivering a product in substantial quantities and/or of superior quality. Production activity dominates the business models of manufacturing firms. Problem solving key activities relate to coming up with new solutions to individual customer problems. The operations of consultancies, hospitals, and other service organizations are typically dominated by problem solving activities. Their business models call for activities such as knowledge management and continuous training. Business models designed with a platform as a key resource are dominated by platform or network-related key activities. Networks, matchmaking platforms, software, and even brands can function as a platform. Key activities in this category relate to platform management, service provisioning, and platform promotion.

Wahl (2012) find that considerations such as how resources are developed, how they are integrated within the firm and how they are released have also been under-explored. Dynamic capabilities (DC) attempt to bridge these gaps by acting as a buffer between firm resources and the changing business environment. It is plausible that the specific dynamic capability, whether problem formulation, problem solving, or solution implementation, may depend on the nature of the changing environment (Nickerson *et al.* 2012). The essence of dynamic capabilities is a firm's behavioural orientation in the adaptation, renewal, reconfiguration and re-creation of resources, capabilities and core capabilities responding to external changes (Teece *et al.* 1997; Wang and Ahmed 2007). Both capabilities (DC) and resource-based view (RBV), uses routines and resources as the units of analysis. Routines are defined as behaviour that is learned, highly patterned, repetitious or quasi-repetitious, founded in part in tacit knowledge (Winter 2003). Behavioural assumptions, bounded rationality and opportunism, represent a superset of assumptions for the capabilities, dynamic capabilities, and governance perspectives (Nickerson *et al.* 2012). While the resource-based view (RBV) emphasizes resource choice or the selecting of appropriate resources, dynamic capabilities (DC) emphasize resource development and renewal. More generally, capability development entails improvement over time in carrying out the activity as a team, these improvements are likely to stem from a number of factors, including but not limited to learning-by-doing (Helfat and Peteraf 2003). However, dynamic capabilities do not just appear from nothing, but instead they are typically the outcome of experience and learning within the organisations (Kuuluvainen 2012). Learning organization is an organization skilled at creating, acquiring, and transferring knowledge and at modifying its behaviour to reflect new knowledge and insights (Hunger and Wheelen 2011).

## 2.2. Defining the Main Constructs with Focus on Values

A construct refers to a verbal definition of an abstract idea. A construct in the philosophy of science is an ideal object, where the existence of the thing may be said to depend upon a subject's mind, as opposed to a real object, where existence does not seem to depend on the existence of a mind (Bunge 1974). Constructs are particularly meaningful in qualitative research because they enable to define and explain the research phenomenon, and to focus on examining how various phenomena are being conceptualised.

The goal of strategic management is creating and capturing value. Values are deeply rooted, abstract motivations that guide, justify or explain attitudes, norms, opinions and actions (Schwartz 1992) in the analysis they can provide predictive and explanatory power. Moreover, values can reflect a major social change in societies and across nations (Schwartz 2003). Cardinal values (wealth, order, truth, transcendent, virtue, and beauty) are values that are fundamental to rest of the moral system, the values from which all other values spring (Zetterberg 1997). The value propositions building block by Osterwalder and Pigneur (2010) describes the bundle of products and services that create value for a specific customer segment. A value proposition creates value for a customer segment through a distinct mix of elements catering to that segment's needs. A value proposition is an overall view of a company's bundle of products and services that are of value to the customer. Here values may be quantitative (e.g. price, speed of service) or qualitative (e.g. design, customer experience).

Stakeholder theory begins with the assumption that values are necessarily and explicitly a part of doing business. It asks managers to articulate the shared sense of the value they create, and what brings its core stakeholders together. It also pushes managers to be clear about how they want to do business, specifically what kind of relationships they want and need to create with their stakeholders to deliver for their purpose. Stakeholder theory concerns values and beliefs about the appropriate relationships between the individual, the enterprise, and the state (Tricker 2009). Freeman *et al.* (2004: 366) tell that "Shareholders are stakeholders; creating value for stakeholders creates value for shareholders. How else could managers create shareholder value other than by creating products and services that customers are willing to buy, offering jobs that employees are willing to fill, building relationships with suppliers that companies are eager to have, and being good citizens in the community? Creating value for stakeholders is important." A careful exploration of the concept of values, uncovers differences indicating that organizational values adopt a number of forms. Bourne and Jenkins (2013) make the case that there are four distinct forms of organizational values – espoused, attributed, shared and aspirational. These partial, but related, forms encompass variation in temporal orientation and levels of analysis. They use these forms to reveal the dynamic nature of organizational values by delineating the evolution of gaps and overlaps between them. They

set out a series of propositions, originating from institutional, organizational and managerial sources to explain the nature of movement between these distinct forms of values and the potential implications for organizational behaviour and performance.

In conclusion it can be stated, through the authors, that strategic management is a set of decisions and activities that determines the long-run performance of a business. The overarching goal of strategic management and business model generating is creating and capturing value for core stakeholders. Strategy is defined as a series of goal-directed plans and activities that align a business's structure (chain of command), culture (behaviour, attitudes, norms, value judgments, and values), and resources (tangible and intangible assets, skills, knowledge) with the opportunities and threats in its environment. The Nickerson *et al.* (2012) problem-finding and problem-solving approach considers four activities: problem finding, framing, and formulating; problem solving; solution implementation; and operating implemented solutions, as necessary for creating and capturing value. Resources are means, competencies powers, and capabilities abilities.

### **3. Research methodology**

#### **3.1. Philosophies and research approaches**

Research philosophies tell us about the philosophic assumptions the authors have about the world, the nature of knowledge and knowing, the role of values, and how to go about studying the phenomena. Every research tradition makes four key assumptions: ontological, epistemological, axiological, and methodological. The nature of the research problem is the guiding star when deciding on the methodology.

Current work is based on constructionism; it is in the early stage of development as a research paradigm and is distinguished from the others by its relativist stance, which holds that realities are apprehensible in the form of multiple, intangible mental constructions that are socially and experientially based (Guba and Lincoln 1994). Interpretive ontological assumptions are that the world is complex and dynamic and is constructed, interpreted and experienced by people in their interactions with each other and with wider social systems. People experience reality in different ways. Reality is constructed by people based on beliefs, feelings and experiences; multiple local and specific “constructed” realities exist (Hine and Carson 2007). An interpretive epistemological assumption is that knowledge is based not only on observable phenomena, but also on subjective beliefs, values, reasons, and understandings. The researcher is a “passionate participant” in the world being investigated. Values are an integral part of social life – no values are wrong, only different (Hine and Carson 2007). Theories are constructed from multiple realities; they are shaped by social and cultural context. Interpretive research focuses on the full complexity of human sense making as the situation emerges (Kaplan and Maxwell 1994).

The two main research approaches are Deduction – theory and hypotheses are developed and tested, and Induction – data are collected and a theory developed from the data analysis (Saunders *et al.* 2009). The third way is Abduction – the principle of abduction aligns with the constructionist view of the world. Abduction is the process of forming an explanatory hypothesis; by Peirce (1931) it is the only logical operation which introduces a new idea.

#### **3.2. Research design – strategies, choices and time horizons**

Research design turns the research problem and objectives into a project that considers strategies, choices and time horizons. The chosen case study strategy is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially because the boundaries between phenomenon and context are not clearly evident (Yin 2009). Case studies provide a rich understanding of a real life context; using and triangulate multiple sources of data. All research, whether quantitative or qualitative, is based on some underlying assumptions about what constitutes “valid” research and which research methods are appropriate. Both qualitative and quantitative researches have associated ethical issues. Negotiating access and research ethics are critical aspects of research; therefore potential ethical issues should be recognised. Also data protection legislation requires complying with legal requirements.

Research projects may be cross-sectional or longitudinal. The chosen research strategy is case study, using mixed methods, and it can be categorised as an explanatory, cross-sectional research project.

#### 4. Data collection and analysis methods – techniques and procedures

Techniques and procedures are miscellaneous material or data collection and analysis methods. Although a clear distinction between data gathering and data analysis is commonly made in quantitative research, such a distinction is problematic for many qualitative researchers. The process of data analysis and collection is necessarily interactive. Qualitative data refer to all non-numeric data or data that have not been quantified and can be a product of all research strategies (Saunders *et al.* 2009). The data type constrains the presentation, summary and analysis techniques that can be used.

MEKTORY has organized 2012 the second business model generation competition, all competitive case studies ( $n = 38$ ) are analysed. All students were able to form up teams and participate in the competition, compete for valuable prizes and, most importantly, gain experiences in managing teamwork, sharing and presenting ideas. All material and data are entered into a MS Excel 2010 case database. All chosen cases ( $n = 38$ ) are thoroughly described and coded, starting with old and new key resources (OR, NR), key activities (OC, NC), and value propositions (OV, NV). Material is entered as a matrix and recorded using numerical codes. Codes are entered for all data values. Existing coding schemes enable comparisons. Data are checked for errors, cleaned, pre-processed. Thematic case analysis and case contrasts were done before analysis of empirical regularities.

For computer analysis Microsoft Excel 2010, The Waikato Environment for Knowledge Analysis WEKA 3.6.2 (Hall *et al.* 2009), Feinberg’s Wordle (2013), Steinbock’s TagCrowd (2013), and Text is Beautiful (2013) the modern text analytics for an innovative way to present, and to garner deeper insight from text were used. We identify emergent concepts and utilise a rich array of metrics to highlight meaningful relationships and real insight into our text. This deeper context is simply unavailable to many tools that rely solely on word counting. We live in a world where the importance and volume of information being collected and made available is increasing quickly. Despite the availability of large quantities of free-form text, much of the information is only considered in a quantitative context. We often tend to omit qualitative analysis and exploration. We are able to compete with the pretty visuals made using quantitative data, and it is more about helping to understand the text. Text is Beautiful (2013) integrates concept clouds, concept webs, and correlation wheels.

In this visualisation (Figure 2), Concept Cloud for the examined categories and subcategories of resources, competencies, capabilities, and values, the concepts are positioned randomly to keep the visualisation nice and compact.



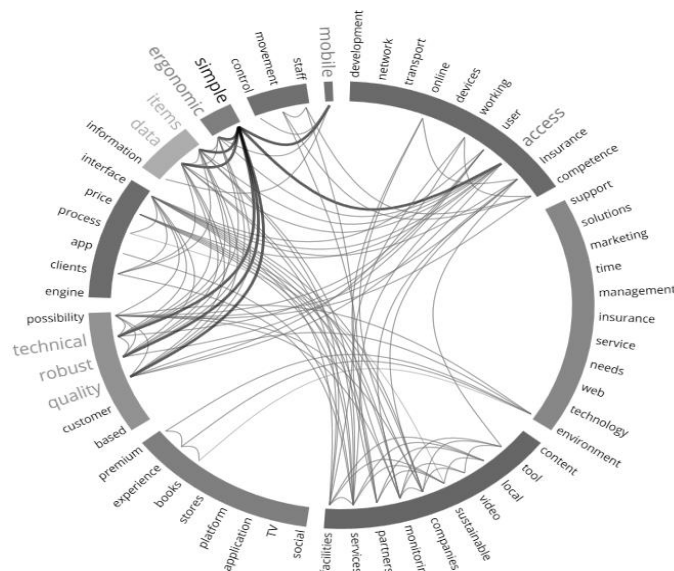
**Fig. 2.** Concept Cloud for the examined categories and subcategories of resources, competencies, capabilities, and values

*Source:* Author's illustration

The size of a concept denotes how frequent it is within the text. The Concept Cloud groups concepts into categories. In original categories are denoted by colour. Concepts that have the same colour belong to the same theme and are closely related.



*Source:* Author's illustration



*Source:* Author's illustration







and a high production depth in order to safeguard the quality level and to protect the know-how during the manufacturing process.

The typical homeland of the ca. 2000 hidden champions is Germany where around 2/3 of all companies are located. The average growth rates is about 25% per year and innovation is one important driving force of hidden champions which can be expressed by a research and development rate of 6% and a number of 30 patents per 1000 employees which is double and 5 times higher than in average companies. It has to be mentioned that innovation is not restricted to technology; also marketing and distribution are target areas for innovations.

Finally the strategies of hidden champions are impacting also the field of personnel management where employees are regarded as assets enjoying regular trainings and continuous qualifications so consequently the fluctuation rate only reaches 2.7% which is only about 1/3 of normal companies and CEO's stay in the average 20 years compared to 5 years in DAX companies. This stresses the existence of a brand strategy which is coherently communicating internally and externally the values of innovation and quality as well as the importance of cultural values and issues for the underlying organisations. But since the starting point of our research is related to start-up sector it makes sense to add some remarks on the relationship with young fast growing start-up companies which Birch called "gazelles" (Birch and Medoff 1994).

More recent studies show that "gazelles" need not to be necessarily young companies (Dautzenberg *et al.* 2012) and compared to hidden champions they are relative numerous, so only Germany counts more than 13000 gazelle companies. In any case gazelles can be characterised by their fast growth, especially in employment, they appear very often in knowledge intensive branches, and they are highly innovative and internationalised.

From this point of view it is surprising that the categories internationalisation and culture are totally missing in the considered business models. Especially the underdeveloped perception of internationalisation is not only neglecting the reality in hidden champions and gazelles, it is also underestimating the influence of cultural variety and diversity on innovation. In a famous study of Niebuhr (2010) it turned out that cultural variety has a significant positive impact on the innovation power of regions. In this context companies which are enjoying international operations are rather able to attract and integrate well-educated migrants and so they benefit from their intercultural diversity (Prause and Hunke 2012).

Coming back to our research results it turns out that the observed semantic clusters are fitting well to the characteristics of hidden champions. In this sense the results based on the entrepreneurial concepts of MEKTORY show a strong affinity to the categories of hidden champions which is not really surprising since the entrepreneurial concepts of MEKTORY are focussing on needs and configurations guaranteeing high growth and innovation driven developments for new and young technology companies acting with a single product on markets which could be even global.

## **Conclusions and Recommendations**

The conducted research allows making conclusions and recommendations. The problem, set by the authors, of not understanding what is really meant by resources, competencies, and capabilities is solved. The main purpose to develop a better understanding reached.

In conclusion it can be stated through the authors that strategic management is a set of decisions and activities that determines the long-run performance of a business. The overarching goal of strategic management and business model generating is creating and capturing value for core stakeholders. Strategy is defined as a series of goal-directed plans and activities that align a business's structure (chain of command), culture (beliefs, expectations, norms and values), and resources (tangible and intangible assets, skills, competencies, knowledge) with the opportunities and threats in its environment. The Nickerson *et al.* (2012) problem-finding and problem-solving approach considers four activities: problem finding, framing, and formulating; problem solving; solution implementation; and operating implemented solutions, as necessary for creating and capturing value.

The main implication of the current research is better understanding that resources are means, competencies powers, and capabilities abilities. Methodologically the research is valuable used modern text analytics for an innovative way to present, and to garner deeper insight from text.

Interpreting the results, it is important to keep in mind that MEKTORY has organized only just the second business model generation competition. The most important limitation lies in the fact that our case database consists only few competitive case studies ( $n = 38$ ). Organizational success is related to growth and development. It is recommended that further research should include evolutionary approaches, which are not explicitly used as a theoretical framework in strategic management, although the evolutionary perspective is consistent with it. Further normative value research might investigate what should be the ownership values for successful companies. Strategic management has become a major topic in the world of business, politics, and academia, in Estonia and throughout the world. It has important implications not only for business, but for the wider economy and society.

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## ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

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### IMPACTS OF SUSTAINABLE STRUCTURAL GROWTH ON THE ECONOMIC PERFORMANCE OF LISTED COMPANIES

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**Abstract.** The purpose of the present publication is to measure the impacts of structural growth on the economic sustainability of listed companies. Scientific literature overview, secondary data analysis and semi-structured qualitative interviews were combined in order to examine the effects of structural growth. The research question is how structural changes of listed companies affect their sustainable growth. Scrutinizing various cases makes it possible to tackle the patterns of sustainable structural growth, based on a type of structural change. Many researchers (such as Huang and Kleiner 2004; Deal and Kennedy 1982 or Pritchett and Gilbreath 1996 and etc.) and business analysts (such as KPMG consulting company 1999) have not found a common answer what are the key success factors of structural growth. It is related to strategic targets, due diligence activities, expenses (the transactional decision-making phase) or integration planning, the organizational culture, assimilation or dissimilation (the integration phase). Franks and Harris (1989) emphasize the increase in shareholders' value as the main motive for structural changes. Boucher (1980) argues that the two most common reasons of structural changes are either attempts of taking opportunities present in the market, or increasing the growth. The present research, which combines the analysis of secondary data and semi-structured qualitative interviews, aims to verify various researchers' statements. Based on the scientific literature analysis, two conceptual models are designed and verified. This should serve as the background for the further examination of the role of structural changes on a sustainable companies' growth and new publications in the same series.

**Keywords:** mergers, takeovers, business formation, business management, performance evaluation, performance indicators, financial markets, financial management, sustainability

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**JEL classification:** G32, G34, L21, M13

## 1. Introduction

Companies of different sectors, size, lifetime, and business development stages face their specific needs to grow revenues and profits while strengthening their competitive advantages: some of them are involved in structural changes; others keep focusing on an organic growth. In both scenarios the principle objective is their economic performance. The Penrose's (1959) observation that growth is one of the key indicators and goals of any business elucidates an important pattern that rapidly growing businesses are more attractive among shareholders (Tosi *et al.* 2000). Langford and Male (2001) identify three types of growth: organic growth, growth through structural changes, such as mergers and acquisitions, and combination of the two methods. According to Irvin *et al.* (2003), the organic growth is assumed to be the least risky and costly growth, with fewer problems in internal communication, adaptation and organization of processes. However, it can also be characterised as causing the

smallest amount of sudden changes in activities of a company, while being more predictable. Irvin *et al.* (2003) also relate organic growth to not using external resources and expanding as much as the market allows: the market is growing and companies are increasing their share in the market. As the limitation it should be stated that the organic growth in mature markets rarely exceeds 3-5 % on the year-to-year basis, excluding the expansion to new niches and new product lines. Samuelson and Nordhaus (2001) emphasize that organic growth might lead to overinvestment, as past some point the returns on investment start to become lower and lower; then the external growth strategies should be examined. This can be related to the limited client base or too high production costs of additional goods (Ethier 1982). Meer (2005) believes that organic growth is more suitable in emerging markets because it helps to avoid risky investments and reach the stability within a company, which is in general related to sustainable improvements rather than a temporary growth. Lockett *et al.* (2011) go one step forward and underline the importance of planning and business modelling in order to achieve a sustainable organic growth. The structural growth is often called inorganic growth or growth through structural changes. Based on Varaiya *et al.* (1987), this kind of development is to compensate the lack of organic growth. According to Reddy *et al.* (2013), companies often strengthen their performance via merging or acquiring competitors in mature markets, while within emerging markets it can serve as an accelerator of growth. Danescu (2011) draws attention to the synergy effect, merging 'know-how', increasing owned assets and revenues in the short run, which can lead to better borrowing possibilities and decreasing costs of loaning. Dalton, D.R. and Dalton, C.M. (2006) suppose that the principle challenges of structural growth of companies are related to the incorporation of newly acquired assets and human resources into the company. The organizational communication, processes, structural planning, asset and wealth allocation, organizational culture, application of expertise and many other issues follow the merger or acquisition. In addition to the analysis of mergers and acquisitions there should be an adequate attention paid to spin-outs and demergers that often are responsible for inorganic growth, although they mean splitting a company into more entities. It is obvious that sometimes splitting contributes to a better performance of a company or new companies, and can deliver shareholders a higher value-added. Passing through different stages of development a company normally experiences both organic and inorganic growth and sometimes needs to combine both at the same time; it provides the diversification and balance and implies the sustainability of a business. It also requires from managers the expertise of managing two types of development. As it is stated by Delaney and Wamuziri (2004), the joint ventures could be a good example of such combination, where a newly formed company is owned by at least two companies. Another important aspect the concept of sustainability refers to is the long-term orientation and consistency in business processes: the growth rates should be long-lasting, while improving one economic indicator companies should not worsen another one. Therefore, the present article is to measure the impacts of structural growth on the economic sustainability of companies, and the combination of such research methods as the scientific literature analysis and semi-structured qualitative interviews helps to answer to the research question, and to illustrate the role of structural changes via various cases and scientific insights.

## **2. Peculiarities of mergers and acquisitions**

To understand better the impacts of structural changes it is reasonable to distinguish the differences between mergers and acquisitions. Based on the Lithuanian Civil Code (2000), the main difference between mergers and acquisitions is the form in which the ownership and legal status of organizations is organized: during the merger an entirely new company is formed, ending existence of companies that are merged, whereas during the acquisition process one company is merged to other during the integration process, and, thus, the acquiring company keeps its' legal status. While acquiring the ownership of another company, a company also acquires all the assets and liabilities of that company. When the target company is well-known and of significant importance, some characteristics or name of acquiring company might be changed. Weston *et al.* (2004) distinguishes three main types of mergers, according to the relationship of companies that are merging: horizontal mergers (mergers between companies competing in the same industry), vertical mergers (mergers where one company is a supplier for another), and conglomerate mergers (mergers between companies that do not have any direct relationship between each other, do not have complementary markets or production processes and have no competing products). Within the case of horizontal mergers the government should eliminate possibilities of the breach of concurrence law and the appearance of monopolies (Poindexter 1970). Kumar (2009) pays a special attention to industry roll-ups that include small, yet mature companies, without dominant leader. Such clusters intend to achieve the economy of scale in terms of such aspects as purchasing, IT, distribution via minimizing the part of

administrative costs in the total expenditure. Stacey (1966) tackles the specificity of vertical mergers, where firms are in general in different stages of production operations: thus, the decrease in costs related to pricing, contracting, payment collection, advertising, and communicating are the basic focus of such changes. Baker *et al.* (1981) scrutinize patterns of conglomerate mergers, where product extension mergers (can also be called concentric mergers), geographic merger extensions and mergers between companies from completely unrelated business activities are possible. In many cases the value-added is generated via discounted cash flows. In parallel to the classification of mergers there should be the typology of acquisitions explained. Jennings and Mazzeo (1986) examine such acquisitions as hostile takeovers, when the acquisition is executed in spite of disagreement of governing bodies (via direct proposal to shareholders or replacing managers of a company). Kosedag *et al.* (2009) tackle the reverse takeover cases, when a company performs the acquisition of a public company and enters the public market through such transaction in order to avoid a lengthy process of going public through Initial Public Offerings (IPOs). It can also help mitigate risks related to the volatility (mood swings and cycles) in the public markets.

According to Hall and Norburn (1987), the majority of acquiring firms tend to suffer significant losses in returns or enjoy positive minor returns temporarily. Firth (1980) adds that returns are starting shrinking rapidly right after completing acquisition processes, whereas studies by Michel *et al.* (1983) and Dodds and Quek (1985) indicate the period of 55 months during which a negative effect of acquisition completely cancels out previous gains and returns a company to the point where they have gained nothing from acquisitions. There is a consensus among such scholars as Wansley *et al.* (1983) that an acquiring company rarely experiences benefits from acquisitions, while the shareholders of an acquired company experience substantial gains. After conducting the research involving 168 cases of acquisitions of listed companies Sirower (1997) suggests that in many cases where acquisitions produced synergies and improved the overall organizational performance, they still failed to repay the premium that the acquiring company had to pay. Another study by KMPG International (1999) found that around 83 per cent of mergers and acquisitions failed, being translated to the decrease in the productivity, loss of shareholders' value and worse performance by the staff mainly due to bad planning and execution. On the other hand, all the Big4 companies of auditing and accounting sector experienced at least two relatively successful mergers in their history by 2013, because of having a sufficient know-how and management skills. Huang and Kleiner (2004) believe that only 23 per cent of acquisitions fixed their cost of capital, whereas around 75 per cent of executives of acquired companies left within three years of acquisition. Even though there are some authors who argue that M and A's have positive or at least neutral effect (Gould 1998) not taking into account the price of acquisitions. Maquieira *et al.* (1998) after examining 260 mergers in the USA identify significant differences between horizontal and conglomerate mergers. Horizontal mergers profited from significant synergistic benefits and experienced substantial gains, whereas conglomerate mergers experienced either very low gains or none at all. In some cases, where conglomerate mergers served as defensive diversifications, they have generated improvements in financial results of companies (Cornett and Tehranian 1992). In addition, some well-known American researchers have found significant improvements in post-takeover results of companies and industry-adjusted cash flows within these companies (Healy *et al.* 1992).

Apart from a few researchers with findings in favour of mergers and acquisitions, the majority of studies came up with results revealing the negative or neutral impact. Berger and Humphrey (1992) have found no significant improvements in post-merger results of conglomerate mergers. Finally, Peters and Austen (1985) state, that only motives and targets help to justly evaluate the success of any merger or acquisition. Some researchers argue that mergers and acquisitions nowadays act as a tool to gain advantage in corporate arena where managers compete for control and possibility to manage more resources (Jensen and Ruback 1983). Within the study performed for the Federal Trade Commission by Boucher (1980), 31 key motives for acquisitions were identified, where the top 12 motives are presented in Table 1. Levinson (1970) found quite strong evidence that behind rational reasons there were psychological reasons often causing condescending and manipulative attitudes towards other parties of a transaction. Graebner *et al.* (2010) distinguish three main buyer motives and two main seller motives in such transactions. The main buyer motives are the addition of strategically valuable resources, enhancing market power and achieving strategic renewal.



**Table 1.** Most popular motives of acquisitions

Motives for acquisition		
Motive	Score	Rank
Take advantage of awareness that a company is undervalued	18,2	1
Achieve growth more rapidly than by internal effort	16,9	2
Satisfy market demand for additional product services	14,5	3
Avoid risks of internal start-ups or expansion	14,3	4
Increase earnings per share	14,2	5
Reduce dependence on a single product/service	13,5	6
Acquire market share or position	11,6	7
Offset seasonal or cyclical fluctuations in the present business	10,5	8
Enhance the power and prestige of the owner, CEO or management	10,2	9
Increase utilisation of present resources - e.g. physical plant, individual skills, etc.	9,3	10
Acquire outstanding management or technical personnel	8,9	11
Open new markets for present products/services	8,5	12

Source: Boucher (1980)

The main seller drivers are adding strategically valuable resources and relieving personal pressures off leaders within acquired companies. The motives are accompanied by conditions and factors to make a structural growth successful (KPMG 1999) with six factors ahead (three ‘hard keys’ and three ‘soft keys’). The ‘hard keys’ correspond to activities that must be performed (synergy evaluation or business fit, integration planning and due diligence); the ‘soft keys’ correspond to such human resource management aspects as the management team selection, cultural issues and communication with employees, shareholders and vendors. Huang and Kleiner (2004) have also emphasized the role of due diligence activities in estimating a target company. Simpson (2000) adds the importance of integration process, while Pritchett and Gilbreath (1996) underline the assimilation/integration process, contrary to practices of MandAs in 1980’s. According to the research by Huang and Kleiner (2004), the main obstacle in successfully executing mergers and acquisitions are a cultural barrier, timing and speed of merging, psychological shocks and ineffective communication. Within the study of Coopers and Lybrand (1992) out of 100 interrogated executives of failed mergers 85 mentioned the differences in managing styles as one of the reasons why integrations were not meeting expectations. The study by Deal and Kennedy (1982) examined 80 companies and found out that only 25 companies had clear goals and beliefs (18 of those 25 companies had qualitative beliefs rather than only financially oriented targets, and these companies were identified as undoubtedly the best performers with the strongest organizational culture). These findings suggest that when merging companies the attention should be paid to developing a new organizational culture, creating strong values, being not only financially oriented or looking to exploit the market.

### 3. Patterns of demergers and spin-outs

Panda and Hanumantha (2012) draw attention to another type of structural growth, when companies decentralize rather than concentrate all the activities. The concept of demerger was firstly developed in 1920s and can be defined as a divestiture of a division or of a part of a company in order to strengthen its’ focus on core operations. In some cases demergers refer to spinning out a new company formed with some resources of a parent company (a parent company continues its’ activities), however, a company can be also split into two or more new companies, whereas the initial company is liquidated. Weston *et al.* (1990) examine spin-offs, when a new company is formed from part of another existing company with some shares distributed on a pro rata basis and some assets of parent company transferred to a newly formed entity. The United States Securities and Exchange Commission defines spin outs as establishing a new company, in which the equity owners of a parent company receive equity stakes. According to Rumelt (1974), there are five different types of portfolios in terms of activities of a company: single,

dominant, related-constrained, related-linked, and unrelated businesses. Companies, where activities are not very interrelated, are more likely to perform spin-offs and do it successfully. Based on the researches by Schipper and Smith (1983) and Hite and Owers (1983), after announcements of spin-offs companies managed to experience positive returns. Although within newly spun-offs some owners get rid of their shares, in many cases companies start to experience the increase in the share price and in the long-term tend to strongly outperform the market averages (Kleiman and Sahu 1992). Cox *et al.* (1992) compared the pre-spin-off period with periods after companies are spun-off: corporate spin-offs increased the operating efficiency of new companies substantially. According to Woo *et al.* (1989), small spin-offs are much more successful in generating stronger growth of sales (79% companies), whereas only 23% of big scale spin-offs showed similar improvements. The main motives causing structural changes are to enhance benefits received from the newly formed entity and to improve the newly formed company's performance, whereas negative reasons are usually the factors to avoid negative consequences that can be caused by owning a division or department. According to Kirchmaier (2003), the main benefits of demerger include the stronger focus of investors on the newly created company, more clearly defined structure and potential of this company and larger flexibility within the company. Panda and Hanumantha (2012) identify the main drivers of demergers and spin-offs:

1. Desire to raise additional equity from the financial markets.
2. Better concentration on the key activities, allowing to get rid of unnecessary processes and improve financial performance.
3. Reduction of internal competition for funds, allowing newly formed entity to have complete control over its finance allocation.
4. Improvements in governance (newly formed entities tend to have more a clear structure and a more direct involvement from the head office, which allows it to function more efficiently).
5. Reduction in negative synergies, which is a common characteristic of big conglomerates where organizational structure is often complicated and formalized.

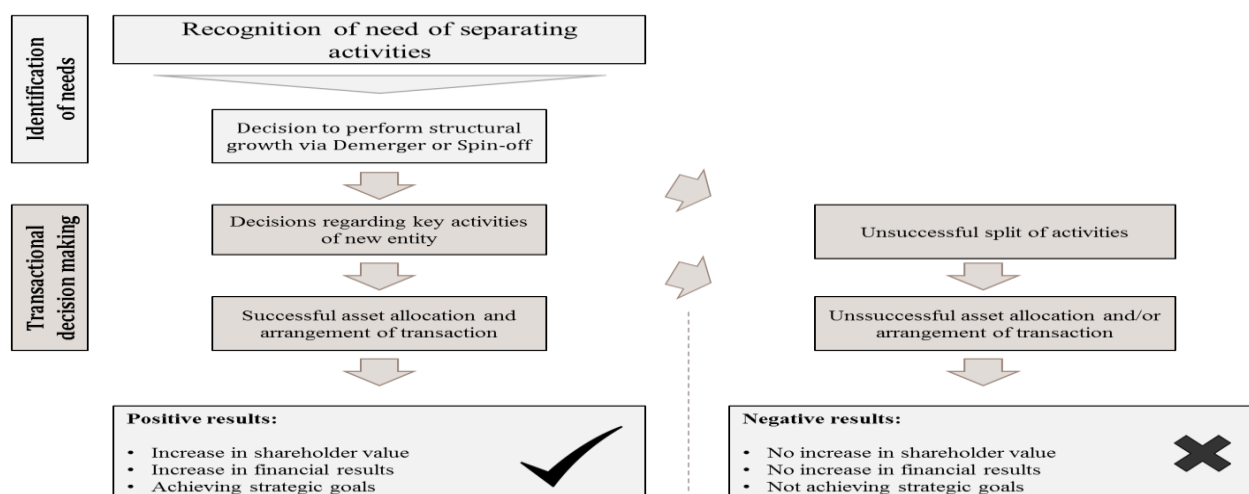
Krishnaswari and Subramaniam (1999) add that spin-offs could reduce the information asymmetry in the market about individual divisions of a firm. In conclusion, it can be noted that the key reasons for demergers are the attempts to increase the quality in two areas: clarity and efficiency within the organization, and financing, so that companies could clearly communicate their value to investors and in return receive investments that the market feels they deserve. According to Hellerman and Jones (2000), during the months of transaction and its' planning the important decisions have to be made in such key areas:

- Financial and tax regulations and its impact on organizations;
- Legal matters and issues related to governing;
- Human resource structure, staffing, etc.
- Future interaction and relationship between the newly spun-off company and parent organization;
- Infrastructural matters, which guarantee that the company is able to function and perform its main operations without interruptions and unrelated distractions.

Khan and Mehta (1996) argue that in majority of cases there should be synergies that are worth keeping; also, some companies, even after demerging, have legal obligations to each other. According to Woo *et al.* (1989), often within the performance of spin-offs the critical strategic benefits, such as synergies, technology transfer or information networks, are forgotten and not taken into account. Gordon (1992) concludes that to successfully execute demergers it is extremely important to take into account the benefits that company can receive from its parent organization, as badly executed spin-off could lead to legal challenges from shareholders, creditors and etc.

#### **4. Research Methodology**

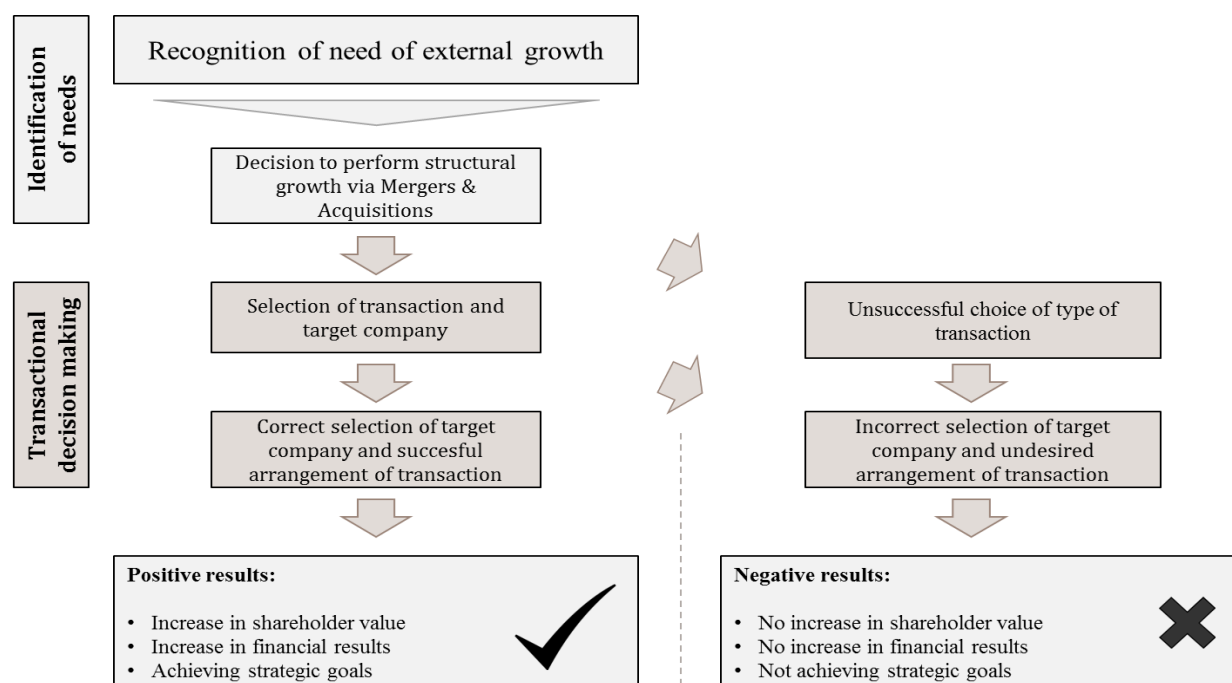
To examine impacts of sustainable structural growth via the main financial indicators first of all there are two conceptual models, summarizing results of the scientific literature analysis and depicting the principle aspects of structural growth sustainability, designed. The models present processes involved in the decision-making within structural changes. The figure 1 graphically depicts the key activities in demerger/ spin-off transactions; however, it intentionally lacks the presentation of processes in the integration phase.



**Fig.1.** Sequence of decision making processes in demergers and spin-offs

*Source:* Constructed by authors based on researches by KPMG (1999), Sirower (1997)

The second model below depicts decision making processes involved in executing Mergers and Acquisitions, where the decision making phase is the most important to the success of a transaction, and actions made in this phase determine whether the merger or acquisition is successful (Figure 2).



**Fig.2.** The sequence of decision making processes in mergers and acquisitions

*Source:* Constructed by authors based on researches by KPMG (1999), Sirower (1997)

The purpose of the present research is to measure the impacts of structural changes on the financial sustainability of companies listed on the stock exchange. It will be executed via a thorough analysis of 4 cases of listed companies that have already experienced similar structural changes. There were both the financial data and results of qualitative interviews with experts scrutinized. All four cases were selected because of directly matching the research problem:

- Altria and its three spin-offs that occurred from 2007 to 2012 in order to split the company, which was once the 11th biggest company in the USA;

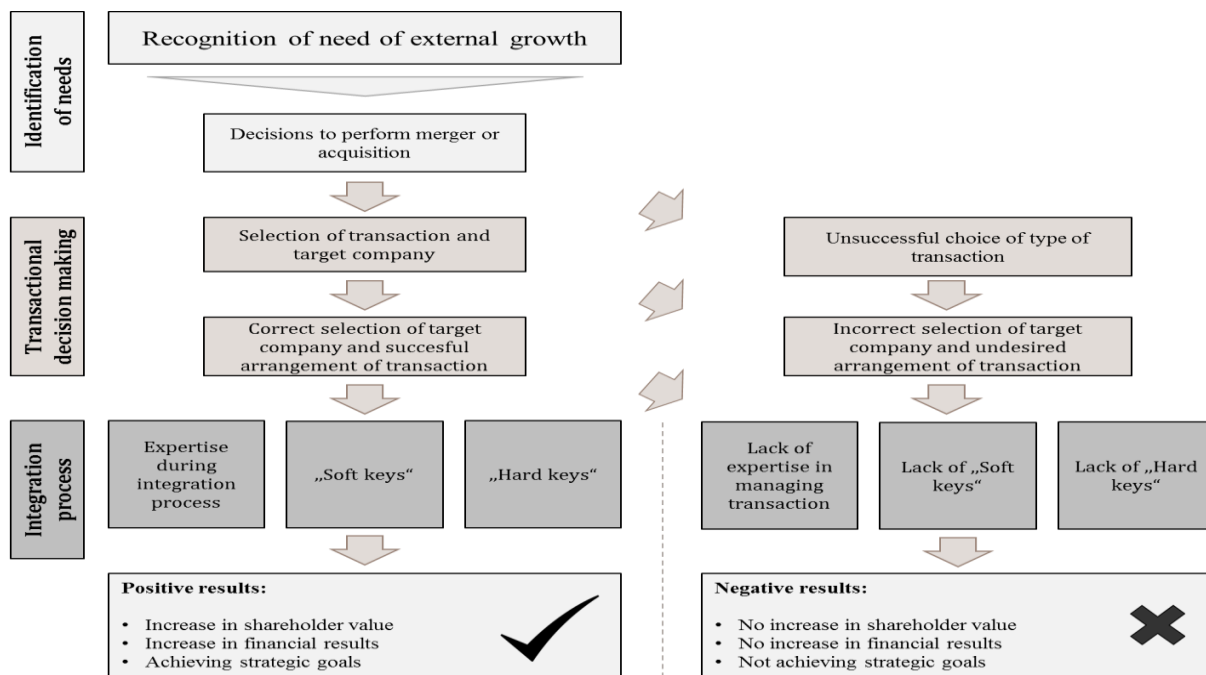
- The merger of GDF and Suez, executed in 2010 to form GDF Suez – the 5th biggest company in France;
- The merger of two largest Norwegian IT companies Ergo group and EDB to form Evry ASA in 2010;
- The Norwegian IT company Q-Free, which performed 2 acquisitions of other companies in 2010.

This cluster of companies represent all the main types of structural growth (have experienced structural changes within recent 5-7 years) and are listed on the stock exchange (Oslo, NYSE, Euronext). In total 3 spin-offs, 2 mergers and 2 acquisitions were examined in the research. The analysis of these cases contributes to the verification of conceptual models, while finding out the most important factors of structural changes that have the influence on a sustainable growth of the analysed companies. The financial sustainability as the illustration of sustainable structural growth was measured by the total revenue, net profit, total market capitalization, shareholder value (capital gains of shareholders), share price and dividends paid to a shareholder. The indicators prior to the transaction and after it were examined. In addition to the analysis of financial statements, representatives of selected companies (working either in the financial department of a company, which is related to Investor Relations, or in the part of a company responsible for mergers and acquisitions) were interrogated. The qualitative interviews were to obtain the information regarding the reasons of structural changes, their execution, impacts, the role of management, main challenges as well as to get the representatives' opinion regarding a sustainable structural growth. The qualitative interviews results were to link the indicators of a company to the key decisions made in the transactional decision-making phase and to see whether there are discrepancies in results that cannot be explained by decision-making in the early stages and how important are factors that are not depicted in the models.

## **5. Modelling structural growth and sustainability**

Within the selected cases the structural changes happened for different reasons and, thus, had specific and different targets; the companies' performance also greatly varied from one case to another. The analysis of secondary data revealed that the only analysed company to actually enjoy success despite a global financial crisis was the one which performed structural growth based on decentralization and carried out three spin-offs within 5 years. This allowed companies to be more flexible in the face of crisis and be able to take opportunities faster and more efficiently, as big organizations would normally act slower. Companies that carried out mergers had problems in various areas, as they were able to improve their sales results, but had problems related to their huge organizational structure and were not able to operate efficiently and at higher margins, which caused decreasing net profits and, as a consequence of that, lower share price and shareholder returns, which usually are one of the key goals of a company. In general, mergers or acquisitions seem to be a very attractive way of sustainable growing for many management teams, as they provide simple and very clear opportunities to grow. Mergers and integration of two or more companies often cause many problems, related to the structure, organizational culture and values, which create many challenges and in some cases completely nullify the benefits received from positive synergies and increased size of a company or acquired competencies. The findings of the study suggest that spin-offs are a very effective way of downsizing unneeded activities from a company and making it more efficient. However, spin-offs should only be performed after a thorough planning, which ensures that positive synergies within a parent company will not be lost and networking or smaller brand power will not have negative effects on activities. It is very difficult to conclude whether the structural growth has positive or negative effect on the sustainable performance of companies, as there are many factors that come into play and determine whether structural changes will have positive effect on results. The two models designed and presented in the methodology part of the publication were tested. In order to depict the success factors and group them according to stages of a transaction, the two models were improved while adding additional elements to these models (Figure 3).

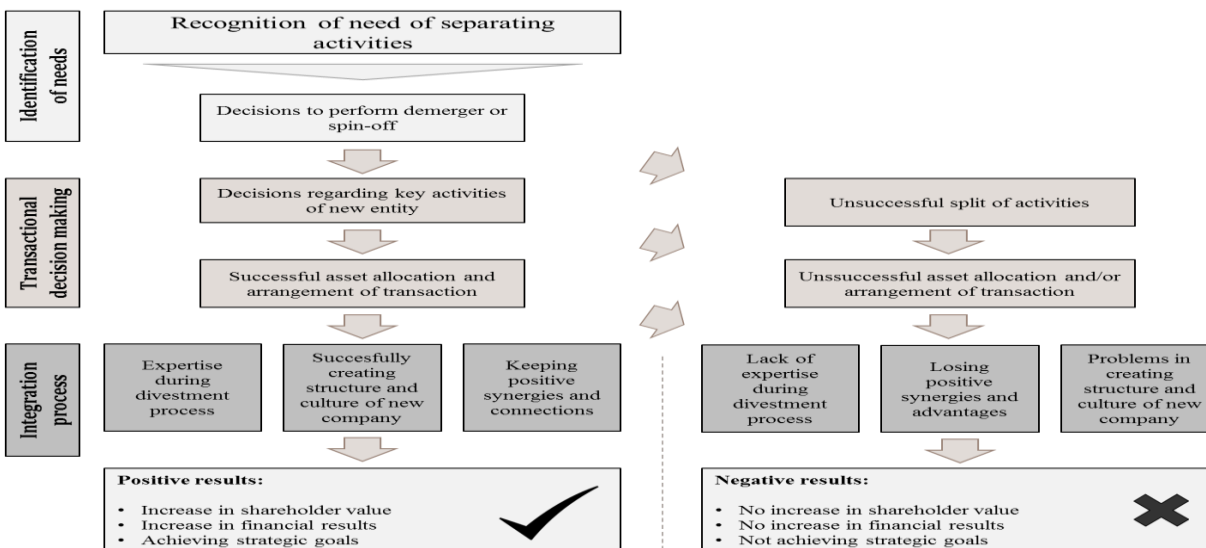
The integration phase of companies is at least as important as decision-making related to a transaction, and the main key success factors are attributable to this stage of structural growth. Usually structural growth through mergers and acquisitions starts with the acknowledgement of the need to increase the growth and size of a company and evaluation of possible alternatives to achieve that. Once it is determined that a company is willing to acquire another company or merge with it, another important stage in the decision-making phase occurs, which is the selection of target companies. The failure at this decision could already determine a complete failure of a transaction. However, if a company chooses the target reasonably, the phase of integration processes begins. In this stage it is still possible that the merger or acquisition will completely fail and the three main groups of processes can be distinguished.



**Fig.3.** The final model of processes and stages of mergers and acquisitions

Source: Constructed by authors based on researches by KPMG (1999), Sirower (1997), results of research

The expertise during the integration process is one of the most important factors, as people leading the integration are as crucial to the success of integration as any leader of organization is to the success of that organization. This group is important mainly due to the decision-making which might arise during the integration phase and the need for it to be well-planned.



**Fig.4.** The final model of processes and stages of demergers and spin-offs

Source: Constructed by authors based on researches by KPMG (1999), Sirower (1997), results of research

The ‘soft keys’ depicted in the graph are the three most important human resource issues: the management team selection, cultural issues and communication. These issues were firstly determined within researches of Huang and Kleiner (2004), and these theories were confirmed by the research performed in this paper. The ‘hard keys’ are the three strategic points that are the most important while successfully executing structural changes: synergy evaluation, due diligence and integration planning. If all the mentioned factors are considered and taken into

account professionally, it is very likely that the merger or acquisition will be successful, which is usually measured by the increase in the shareholder value, improved financial results and accomplished strategic goals. The second model, which is presented below (Figure 4) depicts processes involved in the execution of demerger or spin-off. Similarly to the model of mergers and acquisitions, the processes usually begin by recognizing the need for separating a company into two or more entities and choosing a way of doing this. Once the decision to perform demerger or spin-off is taken, clearly defining activities of new entities and allocating assets to them becomes the primary goal and the first step where the transaction could fail. However, if this stage is executed successfully, the integration processes begin. In this phase, the most important factors, based on the literature review and interviews of representatives of companies, are: professional management of transactions, the recognition of positive synergies and arrangement of keeping such synergies even after the finalization of demerger or spin-off and, finally, the creation of a new organizational structure, culture and set of values. If all of these mentioned stages are executed in a professional and correct manner, it could be expected that the demerger or spin-off will result in a more efficient and flexible company, which can react to customers' needs more actively and eventually improve its financial results, increase the shareholders' value and achieve the strategic goals and vision.

## Conclusions and suggestions

In general, there are three main types of companies' growth distinguished: organic growth, structural growth and combination of both types. The main target of any transaction, initiated by the management team, should be the increase in the shareholder value and, in general, it should be the main measure of evaluation whether the transaction was successful. There are five main groups of motives for mergers and acquisitions: strategic motives (gaining opportunities for future, acquiring resources, know-how, blocking competitors and etc.), expansion motives (desire to move into new market, expand current market share), personal motives (obtain control over more resources), financial (the opportunity to gain profit from a transaction) or organizational renewal (acquiring new personnel, know-how, technologies). The main reasons of demergers and spin-offs that are not caused by the willingness to get rid of unwanted assets include the willingness to focus on the core activities of a company, attempts to eliminate peripheral activities, raising financing of the main and most successful parts of business or attempts to earn profit by buying or selling subsidiaries. In general, it can be grouped into either attempts to have more clear organization, or more efficient financing of companies. Out of the analysed companies only spin-offs were successful in improving the financial performance and increasing the shareholder value. Companies which executed mergers managed to increase sales results, but not profits or the shareholder value. Acquisitions failed to increase their financial results and did not improve their sale and/ or profits, or the share price and/ or shareholders' returns. The integration processes in mergers and acquisitions is of significant importance. Two conceptual models were created to graphically depict steps in structural growth. In the case of demergers and spin-offs the two stages in transactions were distinguished: a transactional decision-making and asset allocation, and disintegration process. In the case of mergers and acquisitions the two stages are: a transactional decision-making and choosing target companies, and integration processes. The research results and the designed models should serve as a solid background of measuring the economic sustainability of companies mainly due to its multi-factor approach and flexibility.

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## ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

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### ECONOMIC VIABILITY AND SUSTAINABILITY OF SOLIDARITY ECONOMY ENTERPRISES: A CASE STUDY ON THE TECHNOLOGICAL INCUBATOR OF POPULAR COOPERATIVES OF THE CATHOLIC UNIVERSITY OF SALVADOR

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**Abstract.** The discussion about the social and solidarity economy, is gradually receiving more attention in the academic field. The main points of discussion are those related to the economic viability of this kind of enterprises and how is it possible to conceive a viable and sustainable management model that, at the same time, respects the peculiarities of this kind of organization. This paper presents the methodology applied by the ITCP UCSal (Technological Incubator of Popular Cooperatives of the Catholic University of Salvador) that acts in this field of economy since 2009 and which work has been recognized by the good results that it has been presetting.

**Keywords:** social and solidarity economy; economic viability

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**JEL classification:** M2, M10

## 1. Introduction

The social and solidarity economy, that incorporates the popular sector economy, is gradually receiving more attention in the Brazilian academic and politic field, even more after the conception of the National Secretary of Solidarity Economy - SENAES in 2003. In some Brazilian regions, the economic reality demonstrates that the formal market does not have conditions to absorb the available manpower. As a result, it has created an informal market that incorporates in some regions a meaningful part of the population. That is the reality of the Salvador's Metropolitan Region (RMS), where, according to the IBGE (Brazilian Institute of Geography and Statics), in 2009, 44% of the economically active population wasn't incorporated by the formal circuit of the economy. The solidarity economy tries to fill this gap by promoting through the self-employment, cooperatives, associations and the informal work that the sustenance of this meaningful part of the population could not, for different reasons, get in the formal work. Nonetheless, managing this kind of enterprises is special as they do not respond to the same rules as the capitalist companies and it is important to respect those differences. For example, the payment rules for those that participate of cooperatives are defined by the members of the cooperative (they can be paid by product produced, product sold, or by dividing the hole profit equally by all the employees), and it is completely different of the capitalist way of payment that pays for the manpower selling. For the solidarity economy there isn't a division between those that have the production means and those who have the manpower and this results in a joint and participative management often extremely complex.

The Technological Incubator of Popular Cooperatives of the Catholic University of Salvador (ITCP UCSal) works since 2009 with enterprises of this nature, trying to understand how they work and conceive a viable management that is applicable to the reality of the popular enterprises. It's a difficult mission as the rules that govern this other economy are different from those that rule the capitalism and, sometimes, the cost / benefit relation is ignored in order to consider others factors that directly interfere at the management of this enterprises such as friendship, family relations, and needs for extra business.

The work made by the ITCP UCSal resulted in a course for NGO's, incubators and governmental technicians, and for teachers and students that work in the solidarity economy field. The objective of this course is to discuss and present methods that can be applied to a viability study for popular enterprises. This course is based on the module "Economic Viability and Sustainability of solidarity economy enterprises" conceived by the ITCP itself and results in the capacitation of technicians that can disseminate this type of viability study.

Based on this module, we will discuss the methodology of intervention conceived, applied and developed by the ITCP. This methodology caught the attention of the government of Bahia's state and has been applied in two of their projects: *Better life program (Programa Vida Melhor)* and *the capacitation of the technician of the public center of solidarity economy (A capacitação dos técnicos dos Centros Públicos de Economia Solidária)*.

## **2. The Popular Sector Economy**

Before analyzing the methodology mentioned above, it is important to clarify the economic context in which the ITCP acts so we can understand the complexity of the viability study developed by them. "By popular sector economy, understands the activities that has an economic rationality based in generating resources (monetary or not) designated to provide and replenish livelihood by using their own resources, aggregating, therefore, units of work instead of capital investment. This economy, of the popular sector, includes individual or familiar activities and also different modalities of associative work, formalized or not" (Kraychete 2012a).

Even though the popular sector economy is considered a collective way to generate resources, it does not have to incorporate the social sector. In other words, the popular sector economy identify a way to generate resources by which, even when the final objective is the income generation – without any political factor in it – the workers are driven to cooperate in order to have a better result. As an example of this kind of economy, the Professor Gabriel Kraychete (2012b) responsible for the ITCP UCSal, uses the case study of the familiar farmers that work producing fruit pulp. The author emphasizes that in this case the farmers already have the production equipment, and usually they produce and sell to the "atravesador" (name given to those that buy the farmers productions and sell to the final consumer or to some sale company). However, the farmers are stimulated to associate and transform their production into fruit pulp so they are able to sell the final product instead of the raw, as they are used to. In this case, the farmer's objective is to increase their family profit and if anything goes wrong they can always return to the raw production.

The example is useful to analyze the popular sector economy without the utopic label in which it is usually dressed by the researches of this economy. However, the activity does not have to be collective in order to be part of this economy. Another example is the housewives that produces and sell snacks. In this case, just like in the farmer's one, they already have the production equipment. Therefore, in this case it is important to notice that the production equipment are the same as the family consumer goods: stove, refrigerator, and household. In this context it is complicated to define some basic concepts such as annual depreciation, fixed production cost; variable production cost because it is not possible to separate the family and the enterprises belongs. Even though the society considers this type of workers as a problem to the economy, the reality is that the market it not able to formally absorb them as the neo-liberalism wants us to believe. We can validate this information through the data given by the IBGE (Brazilian Institute of Geography and Statistics) presented in the Table 1.

**Table 1.** Economically Active Population in the Salvador's Metropolitan Region

Economically Active Population	Year		
	1993	2003	2009
Informal Work	41%	44%	44%
Unemployed	15%	20%	14%

*Source:* IBGE, PNAD (1993, 2003, 2009)

As we can verify in the table above, in this sixteen years with different government and economic and social politics, the tax of social exclusion from the formal market did not change meaningfully. This fact led us to believe that there is a limitation in the market to absorb the available hand labor. The popular sector economy brings a new solution to this problem, as Coraggio (1993), elucidates: “Enabling the emergence of a popular economy, from the substrate of economic activities whose agents are the manual and intellectual workers of country and city, whether dependent or independent, owners or non-owners. This approach does not idealize present-day popular values or practices, nor does it propose overcoming them with a view to attaining full capitalist modernity. It neither recommends disconnection from the capitalist market nor seeks full integration into it. It is an open proposal, inasmuch as it does not prefigure what specific activities, relationships and values are to constitute the popular economy in question. Nor does it choose between society and State, but rather proposes working at the interface between them.”

In the European scenario, this movement can be compared to the cooperative movements of the 19<sup>th</sup> Century, when they were lead to cooperate thought a treat of survival, as Chloupková (2002) explains: “Driven by this economic force for survival, by joining together farmers tend to achieve a greater bargaining strength, which is indeed one of the main reasons why they form cooperatives.” (...) “Similarly, in many other European countries (Germany, France) the formation of cooperatives was also a response to threat imposed on farmers during industrialization. In Ireland the threat came from famine (1831), which has triggered the alternative mechanism of survival, i.e. cooperatives. 110 years later, the same kind of threat of survival was imposed on Spain, when the Basque country was in ruins as a result of civil war (1941). These external circumstances of threat of survival triggered the “alternative way/method” of survival, with the hope of prosperity, which resulted in the formation of cooperatives.”

In fact, this popular economy can be understood as a result of the cooperative movement, although there are some essential differences. According to Jean-Louis Laville (2009), the movement toward a new economy resurges in the North hemisphere after the 80th. In the North it resurges through cooperatives, associations, proximity services, and it was an alternative to the injustices and the incapacity of the capitalist economy to present solutions. In the South hemisphere, they surges because of the same reason, but there is an ideological factor that differentiate both movements: they are trying to find a whole new economic system. This new economy, according to Coraggio (2010), must be “social (...) generate and enable other social relations, other relations with nature, other modes of reproduction, other options for life in society different from the capitalist paradigm of possessive individualism.” This is what the ITCP believes and therefore targets the population that can help them achieve their main goal that is help to develop the studies about this new economy.

### **3. Technological Incubator of Popular Cooperatives of the Catholic University of Salvador (ITCP UCSal)**

Conceived in 2009, the ITCP is part of the extension program of the Catholic University of Salvador. It accessorizes popular enterprises, courses, workshops, seminars and researches. It was organized with the help from the Financier of Studies and Projects - FINEP (Ministry of Science and Technology), and from the Foundation for Research Support of the State of Bahia – FASESB. Institutionally the ITCO UCSal (2013) is part of the “Program popular sector economy” that has begun in the year 1998. This program, pioneer in the state of Bahia, accessorizes popular enterprises, courses, seminars, researches, and production of didactic material and publication of books and articles. The ITCP creation was a way to extend the action of the program. The ITCP UCSal works with enterprises of the popular sector economy that nationally are part of the solidarity economy. It

acts actively in the Salvador's Metropolitan Region, although it also works with rural and urban popular enterprises in other regions of the state. The main objectives of the ITCP are:

1. To stimulate the development of economically viable and emancipatory ways of work through actions directed to the development and sustainability of the projects of popular solidarity economy.
2. Strengthen the initiative capacity of the popular economy organizations in the field of the necessary conditions to the economic viability and effective management of the developed enterprises.
3. Contributes to the production, improvement and amplification of the adequate technology instruments for the peculiar conditions of the popular sector economy enterprises.
4. Provide the academic studies complementation of students from different areas and evoke courses, monographs, and researches about the popular sector economy.

The accessory of the popular enterprises answers the ITCP three first objectives. The methodology used for the accessory received special attention for respect the peculiarities and limitations of this kind of organization. The main concern of the ITCP technicians is to ensure the autonomy of these organizations in order for them to work without the ITCP's intervention. It is only possible because the ITCP capacitates the technicians of the organizations. In order to capacitate these technicians, the ITPC developed a 32 hours course called "Economic viability and sustainability of solidarity economy enterprises" directed for technician of NOG'S, governmental organizations, teachers, students, and other technicians. Analyzing the didactic material used for this course – a book with texts and exercises-, we are able to describe the accessorize process.

The first part of the book (basic texts and complementary texts) manages to inform theoretically the technician producing a state of art. It is an important subject, because when you work with the popular sector, you are dealing with people that have low level of studies and could have never heard about the popular sector economy or solidarity economy. It is important to have this brief so they can see themselves as a movement and can learn about what have been done till the moment that can be used in their specific case. This first part of the book guides the first part of the accessory, which means that once that the organization is assisted by the ITCP, it tries to teach them about basic concepts that will be needed for the whole process. In this phase, they try to know the whole organization, using for it, active and participative methodologies: "One way to check and systematize knowledge about the activity of the enterprise is the members formulate for themselves a series of questions pertaining to all aspects of development: investments, work process, marketing and order management" Kraychete (2012b).

Based on the questions elaborated by the organizations representatives, it is possible to verify the knowledge level that they have about their own activity, because they usually do not know the answer for it. For example, in the case of the housewives that sell food, it is possible that they do not know the detailed recipe to produce the product they sell. Although, without this information, it is difficult to calculate the production cost. The questions should be about the following subjects:

#### *What produce and in what quantity*

The answer depends on the type of enterprises: if it is rural or urban, cooperative or familiar, if it sells to the final consumer or for another company. If the organization already exists, it will be easier to answer this question, on the other hand, it is useful to rethink about the possibilities to change some products or even stop producing some sort of products.

#### *Investment needs*

Inquires what materials are necessary for the enterprises to work, regardless of already existing or not. In those cases when the entrepreneurs already have the materials needed, this exercise is important for them to learn to separate what are production goods and consumer goods. It is also important to define what investments should be done in short and medium term and what are the depreciation value of equipment.

#### *Production process*

This subject inquires about the raw that will be used to produce all the products mentioned above. It is important to detail the production process because this information is necessary to calculate the production cost.

#### *Sales process*

This subject depends on the production process and on the quantity of production; because the commercialization process will be different considering the type of client which organization will be working with. One important point in this subject is the type of organization that we are working with. For example, if we are dealing with a

cooperative, the remuneration procedure can be defined by the sales process instead of being defined by the production one. For this reason it is important to detail this process in order to avoid any future problem in the organization.

#### *Management and organizational process*

In this last subject, it is important to describe how the business is organized as structure and as administrative procedures. It is vital to define statutes, deciding if will exist a commission responsible for the association or cooperative; how this commission will be elected; for how long this commission will be responsible for the organization; and all others administrative rules. The control procedures should also be defined in this phase, as all the others related to the business administration.

The book has a list of questions that can help the technician in this first part of the accessory. In this list you can also find a part reserved to the accessory process. This part tries to understand what the organization expectative is when it comes to the intervention process and also tries to clarify what the ITCP is going to do.

The intervention process is cyclical and divided in three parts: the first phase is to formulate and answer questions about the organization. The ITCP technician asks the technicians of the organization to formulate and answer the questions and to bring them in the following session. In case that the questions are not enough or do not match the reality of the enterprises, they will do the exercise once more until the knowledge about the organization is enough to start making calculations about the activity.

The second phase of the accessory process is to make the viability calculations. In this phase are listed all the investment costs, production costs, depreciations costs, maintenance costs, and expect revenue. Based on these information's, the Contribution margin of sold product and break-even point are calculated. It is only possible to calculate it after having all the procedures defined, because the data used comes from those questions. The result from the break-even point will be compared with the expect revenue: if the break-even point is inferior then the expected revenue the enterprise is considered viable; if it is higher, they should think about solutions to make it viable. This process is done every time something changes in the administrative or productive procedures. It is important to remind that it is only possible to evaluate the viability of the enterprises by the break-even point, because all the peculiarities about the organization were listed in the first phase and all it costs were considered to calculate the break-even point. For this reason, the first phase of the accessory process should be detailed in order to avoid any mistake in the second phase.

The last phase in the accessory process is to archive the enterprises independence. The autonomy is achieved when the organization's technicians are able to elaborate the whole viability process by them, without any help from the ITPC. This independence results from repeat procedures in an organized and coherent way. This process is related to the skill development learned by participative and cooperative methodologies of questioning and answering, through a dialogic communication that empowers and creates synergy.

It is not the reproduction of the viability study and the calculation that develops the desired skills, but the ability to transform the ideas into questions and those into adequate answers according to the objectives. This relation between the possible and the desired constitutes a factor that enhances the knowledge appropriation and the quotidian reflection. It develops a prospective thought based on the initial idea but with possibilities to be developed. That is an aspect that cannot be neglected.

It is expected that the accessory process lasts for one year, although it can be extended. The first viability study is done by the ITCP based on the information received by the organization. After this one, the others are done by the organization's technicians that are helped by the ITCP technicians. Based on these studies, and helped by the ITCP technicians, the organization's technicians will try to find solutions for the enterprises' problems. For the organizations' technician empowerment, the ITCP provides the book mentioned in this article and an electronic material to help with the second phase. Once the process is over, the enterprises' technicians must be able to manage and change the organization whenever they have to, using for it the viability study appropriated by them.

## Conclusions

Regarding the social aspects, the model is able to inspire synergy and the construction of social alternatives. It assumes that the empowerment – the development of their skills – has impact on the way that they see the future and results in an increase in power to make decisions Thompson (2007). It is about empowerment and for this reason, we discuss about rights strengthening and participation of groups, people and population susceptible to discrimination and exclusion. As Fazenda (2005) mentions: “this approach surpasses the paternalist temptation, of excessive protection and unilateral decisions [...], once that its objective is the autonomy of disadvantaged people and their participation on the same level as the technician, in a partnership approach.”

In this context, the empowerment focused on the sustainability promotion of production initiatives, contributes to promote the construction of projects of life and hope needed to overcome crises. It increases the individual and collective power, with results in the life of families and individual, as on the context where they are integrate (Perkins and Zimmerman 1995). This synergy constitutes fundamental condition to the change. The individual has the perception of the opportunities and resources and acts despite the constraints and limitations. Although in less visible manner, and for this reason, less measurable, the individual and inter individual transformations resulting from the application of the model deserve equal prominence in the analysis.

For this reason, capacitating people from a questioning that has its genesis on a business idea or a productive activity reveals the potential to create alternatives with an important attitudinal component. The interaction provided by this methodology enables not only the construction and operationalization of abstract concepts, but also the discovery and affirmation of a process that has unknown complexity. Each formulated question implies a reflection process that overcomes the individual sphere when it is shared, and it develops trust, will, and the attitude to streamline resources that are initially indispensable: those that are part of the human being, because without it the work born may not be will not survive or progress. Thus, this integrative, holistic and adequate to the population needs approach, that often are stigmatized and vulnerable (Lee 2001; Adams 2008) implies the individuals strengthening focused on their autonomy, through the individuals capitalization (Faleiros 2002). The individual and collective self-esteem and self-confidence growth can be achieved through the (re)valorization and the incentive of people, families and community to develop their skills. In this context, it is important to rescue their culture, and traditional knowledge, (re)build their identity, increase their ability of manage resources that enable and empower their reproductive strategies, encourage people, families and community mobilization and organization, encourage their social dynamics inclusion, enlarge their access to organizations and social movements, and drive people, families and community to transform themselves into agents of their own development.

The model presented is pioneering and innovative and has been detached for considering the peculiarities of managing a solidarity economy organization, constituting itself a pedagogical and political process. This isolated factor is enough to understand all the attention that this model has received.

From the economic sight, although the model is recognized as effective and replicable in different places, it presents limitations. The two most important are the fact that it does not integrates a strategic dimension; this is to consider the procedural dynamics regarding the project's future objectives and does not foresee capital for reinvestments. Although it is understandable that it is not considered because this study is meant for a poor population, that survives or lives precariously, and so would not have conditions to reinvest in the organization, these aspects are extremely important to incentive procedures and continuous improvement.

Any organization is guided by its objectives, and for this reason planning would be useful to create process and procedures that would help them to achieve their objectives. On the other hand, ignoring reinvest needs is naive, because they will have to change the equipments eventually and the depreciation will not be enough to cover it – it is necessary to purchase a better ones – and it is necessary to be ready for these situations.

This model has been selected by the Secretary of Work, Job, Income and Sports – SETREE – of the Bahia's state government to be adopted by their technicians of the Solidarity economy Public Center. It was foreseen to

capacitate 135 technicians and agents of 9 Public Centers through the multipliers agents that will be capacitated during 2012 and 2013.

Another recognition was using this model as an inspiration for concept the Program Better Life – Urban (2013), also from the Bahia’s state government. They used the ITCP’s social technology to create indicators, operational instruments, didactic material and the methodology to capacitate the technicians. Those technicians will work in the Socioproductive Inclusion Units – UNIS, with the objective to include socioproductively 60.000 families by assisting enterprises of the popular sector economy.

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**ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES**ISSN 2345-0282 (online) <http://jssidoi.org/jesi/aims-and-scope-of-research/>**INTERNATIONALIZATION OF CONSTRUCTION FIRMS: WHAT STRATEGY DO THEY FOLLOW?****Renata Korsakienė***Vilnius Gediminas Technical University, Saulėtekio ave. 11, LT-10223 Vilnius, Lithuania**Email: renata.korsakiene@vgtu.lt**Received 18 July 2013; accepted 20 September 2013*

**Abstract.** Globalization of markets and economic changes force companies to respond adequately and expand their activities abroad. The paper aims to adopt different approaches, developed in internationalization theory, and to present a conceptual framework focused on business internationalization strategy. The interrelations of strategic goals, organizational competencies and competitive advantage are investigated. The qualitative research method was applied and in depth interviews with the managers of construction companies were performed. The obtained results of research revealed that cooperation strategies involving customers, suppliers and competitors are seen as the main precondition for internationalization of companies. The success of cooperation strategies is based on obtained human resources, technical and management skills of companies. The author of research has elaborated proposals, which are useful for further internationalization of business. The presented paper provides new insights into the scientific theory development

**Keywords:** strategy, competitive advantage, construction companies, strategic goals, competencies, cooperation

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**JEL classification:** M10, M16, M19

**1. Introduction**

Globalization, technological changes, intense competition, fluctuating demand of consumers, economic and political changes impact managers' decisions and encourage taking greater risks and applying appropriate strategies. Notably, growing internationalization and evolving globalization have become distinctive features of the economy. A phenomenon of internationalization has been researched by various scholars in recent years. An exhaustive research has been focused on the international strategies of the firms, the factors, motives and the forms of internationalization. On the other hand, the different approaches aiming to explain circumstances, which allow companies to use opportunities in the market and to gain competitive advantage over competitors, have been developed in the scientific literature.

Small and medium size enterprises (SMEs) play a significant role in the growth of any country's economy. Hence, internationalization of the SMEs is seen as one of the important research objectives in the scientific literature. On the other hand, international entrepreneurship approach was adopted by scholars aiming to explore various industries, but not construction industry (Abdul Aziz 2010). Taking into consideration the fact, that construction industry is the important contributor to Lithuania's economy (Korsakienė, Tvaronavičienė 2012); the paper aims to investigate strategic models or patterns adopted by construction SMEs. The remainder of the paper is organised as follows. In section 2 the concept of internationalization is provided. In section 3 the overview of different



approaches toward strategy is analysed. In section 4 the methodology is presented. In section 5 main results are discussed. The final part provides discussion and concludes.

## **2. The concept of internationalization**

The researches linked to internationalization of the firms are seen as the growing trend in scientific literature. Internationalization is a synonym of the geographical expansion of economic activities over a national country's border. On the other hand, a lot of attempts were made in order to clarify the “internationalization” concept. Hence, the studies focused on internationalization concept definition put emphasis on different aspects and take different approaches.

The definition provided by Welch and Luostarinen imply that internationalization is “the process of increasing involvement in international operations” (Welch, Luostarinen 1988). Hence, the firms gradually and sequentially become involved in international markets. On the other hand, the process of the firm’s internationalization has been widely researched over the last four decades. The scholars explained it as a result of the globalization of industries (Petersen *et al.* 2001). Hence, domestic firms can be subject to an increased pressure to internationalize rapidly in order to respond to the actions from global competitors. A main underlying premise adopted by the scholars is that domestic firms are driven into internationalization process even though they lack knowledge about international ventures.

Meanwhile, other scholars put emphasis on a changing state of the firm. For instance, Buckley and Ghauri (1993) distinguish that the growth of the firm provides a background to internationalization. Hence, the interrelationships of internationalization and the growth of the firm are emphasized. On the other hand, the scholars conclude that internationalization activities are different from domestic activities because “they entail exchange between firms located in different countries” (Agndal 2004).

The early studies of internationalization have laid theoretical backgrounds for incremental models, suggesting that the firms internationalize in small and incremental steps in nearby countries similar in terms of culture, institutions and language (Johanson, Vahlne 1977). Notably, a basic assumption of the incremental models is that the firms start international activities by first using sales agents and then making foreign direct investments (Johanson, Wiedersheim-Paul 1975; Johanson, Mattsson 1993). On the other hand, the models embrace the resource commitment to the foreign markets, market commitment, decisions to commit resources and the performance of current business activities. However, the scholars state that the incremental models are focused on traditional cross-border behavior, not on accelerated internationalization or on entrepreneurial behavior (Oviatt, McDougall 2005). Hence, the researches carried out by various scholars conclude that incremental expansion patterns reduce the failure rate of internationalization but may not increase the firm’s overall profitability (Barkema, Drogendijk 2007).

The networks of business relationships explained by Johanson and Vahlne (1990) adopt the premise that the firms establish and develop various networks in order to facilitate internationalization process. The network theory embraces actors, activities and resources whose interaction influences the firm’s establishment process in a foreign market. For instance, Chetty and Blankenburg-Holm (2000) conclude that internationalization takes place in three ways: through creating relationships with partner in new countries, through rising commitment in already established foreign networks and through integrating their positions in networks in various countries. Hence, the firm’s position in the network and relationships with the current market impact the success of entering into new markets. On the other hand, it is common to develop networks among firms with the same technological, market and production characteristics. The researches carried out in emerging markets conclude that the firms affiliated to the networks could gain a critical source of knowledge for internationalization from current international activities taking place in the networks. Meanwhile, the access to such knowledge will facilitate the acquisitions of business and institutional knowledge compatible with the firms’ internal resources and competencies (Ellango, Pattnaik 2007).

Taking into consideration the various approaches to internationalization, the author of this paper adopts the view that internationalization is expansion of firm's activities to foreign markets and could result from punctual and independent action.

### **3. The approaches to strategy**

The idea that the firms, striving to adapt to the changing business environment, have to develop a viable strategy has been presented by various scholars. On the other hand, the definitions of strategy have been proposed taking into consideration different views. For instance, strategy is defined as "the determination of the long-run goals and objectives of an enterprise and the adoption of courses of action and the allocation of resource necessary for carrying out these goals" (Chandler 1962). Meanwhile, Porter (1996) has raised the idea of strategy as a way, which helps to achieve competitive advantage. He states that "competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value" (Porter 1996). The main underlying premise proposed by Porter is that competitive advantage is achieved by offering higher added value to the customer, which is considerably higher than the costs of production.

Mintzberg (2007) explains strategy as "a pattern in a stream of decisions". According to Mintzberg (2007), strategies do not always follow a deliberately chosen plan, but can emerge in more ad hoc ways. These definitions outline the main important elements of strategy. Hence, the approach that "strategy" is umbrella term, embracing different elements, is adopted in this paper. Notably, different approaches and views toward these elements prevail in scientific literature. The scholars have put a lot of attempts in order to clarify what determines success and failure of the firms both in national and international markets. Therefore, the researches in strategic management field suggest different streams, explaining how strategic decisions of the firms could contribute to the long-lasting success.

Transaction costs theory proposed by Coase has important implications for strategic management and state that strategic opportunities arise from reducing transaction costs (Foss, K. and Foss, N.J. 2005). Therefore, transaction costs and value creation appear to be linked and contribute to the long term competitive advantage.

Meanwhile, Porter (1980) has presented industry-based view and argues that conditions within an industry determine competitive advantage of the firm. The main ideas, proposed by Porter (1980) are based on the five forces framework, which helps to determine the attractiveness of an industry in terms of the threat of entry, the threat of substitutes, the power of buyers, and the power of suppliers and the extent of rivalry between competitors. Consequently, the researchers have focused on the analysis of the industry with the aim to evaluate the competitive position of the firm and propose necessary actions in order to improve it. On the other hand, the focus of scholars on a firm's competitive advantage and ability to change rather than occupy a position in the market has impacted the development of resource-based approach.

The main underlying premise of resource-based view is that the firm has to advance its resources and capabilities constantly in order to gain and maintain competitive advantage over competitors (Barney 2001). On the other hand, resource-based view focuses on internal organization and is a compliment to the traditional approach of strategy based on industry structure and strategic positioning within that structure (Einserhardt, Martin 2000). The resource-based view assumes that competitive advantage of the firm is determined by valuable, rare, inimitable and non-substitutable resources and capabilities. Hence, the proponents of resource-based view argue that the relationships between competitive advantage and performance of the firm are obviously direct. On the other hand, the limitations of resource-based view are linked to its application in dynamic markets. Hence, the emphasis has shifted towards dynamic capabilities by which firms "integrate build and reconfigure internal and external competencies to address rapidly changing environment" (Einserhardt, Martin 2000). The idea of dynamic capabilities implies that long-term competitive advantage of the firm is linked to the resource configuration that managers build using dynamic capabilities, but not dynamic capabilities per se.

Notably, several trends within the scientific literature, developed on resource-based theory, have emerged. For instance, resource-based view, knowledge-based view and relational view are distinguished (Acedo *et al.* 2006).

The researches focused on knowledge-based view assume that both tacit and explicit knowledge is preeminent resource of the firm and that organizational capabilities involve integration of multiple knowledge bases. Notably, the scholars put emphasis on the tacit knowledge, raising complex issues regarding its transfer both inside and outside the firm (Grant 1996). Hence, knowledge integration includes the efficiency of integration, the scope of integration and the flexibility of integration. Meanwhile, relational view adopts the idea that network of firms can develop relationships impacting competitive advantage. Notably, relational view argues that a firm in isolation, irrespective of its resources and capabilities can't earn supernormal rents (Dyer, Singh 1998). To put it other way, relational rents are developed and earned by partnering firms. Hence, the firm develops valuable resources by managing relationships with suppliers, customers, governmental organizations and universities.

The institution-based view assumes that dynamic interactions between organizations exist and considers strategic choices as the outcome of such interactions. Hence, the proponents of institution-based view argue that strategic choices are driven not only by industry conditions and capabilities of the firm, but are also “a reflection of the formal and informal constraints of a particular institutional framework that managers confront” (Peng *et al.* 2008). Notably, institution-based view is relevant to both developed and emerging economies. However, institution-based view as a phenomenon, common to emerging economies, has been widely accepted in the scientific literature. Notably, the difference in institutional frameworks encouraged focusing the researches in addition to industry and resource based factors.

#### 4. Methodology

The above discussion leads to several research questions. The first relates to the relationships among strategic goals, organizational competencies and competitive advantage by internationalizing the firms. The second question is being raised if strategic goals, organizational competencies and sources of competitive advantage affect internationalization patterns. The investigation is based on the presented models and approaches. In order to carry out the investigation a qualitative approach was adopted. This approach seeks to reveal why the phenomenon has occurred in particular cases. The case firms were selected from construction industry of Lithuania, taking into account their membership in the Lithuanian Builders Association. Taking into consideration the fact that industry is predominated by huge number of small and medium size firms, the target group of research has been determined as the small and medium size companies (SMEs) with the number of employees less than 250 employees.

**Table 1.** The profiles of the firms

Firms	Year of establishment	Number of employees	Target countries	Entry modes	Target segments
A	1993	120	Russia (2000), Belarus (2001)	Joint venture, Subsidiary	Engineering construction
B	1992	220	Russia (2010)	Representative	General contractor
C	1995 2008 (merger)	250	Latvia (2008), Estonia (2008), Russia (2009)	Representative	Engineering construction
D	1996	180	EU (2005) Russia (2007) Belarus (2007) Ukraine (2007)	Export Representative office Representative	Engineering construction
E	1992	136	EU (2005) Russia (2005) Belarus (2006)	Export Representative	Engineering construction
F	1960	250	Russia (2001) EU (N/A)	Export, Representative	Construction materials
G	1989	200	Russia (2005-2006)	Export	General contractor
H	1992	150	Belarus (2011)	Representative	Engineering construction

Source: developed by author

The construction industry of Lithuania was growing in 2000-2008. The observations of statistical data allow concluding that value added at constant prices increased almost 3.5 times. Hence, construction industry was regarded as one of the engines of the economic growth (Banaitienė *et al.* 2011). However, the decline of industry

was observed in the period of financial crisis, which impacted the sharp decrease of firms' production volumes. For instance, the gross value added of construction decreased by 43.3%. Hence, the competitive environment of construction companies is seen as unstable due to the changes of consumers' demand and high bargaining power. The firms have to deal with quality improvement, reduction of costs and management issues both at the project and firm level. On the other hand, Lithuania's economy is seen as a very limited for further growth of the firms. Therefore, internationalization has to be regarded as common growth strategies of the firms (Ojala 2009).

According to the recommendations proposed in scientific literature (Yin 1994), the primary data were collected through semi-structured interviews of up to 90 minutes length with the CEOs, owners or the persons in charge of international activities. The interviewees were asked to describe their business in general and as related to the internationalization activities. These questions were divided into the themes and following issues: 1) strategic objectives of the firms, 2) competencies obtained by the firms both in local and international markets, 3) sources of competitive advantage and 4) strategies applied by the firms. The table 1 summarizes information of all case studies. The firms were codified by letters from "A" to "H" in order to keep confidentiality. Notably, all firms were established in 1989-1992 except the firm C (established in 2008) and firm F (established in 1960).

## 5. Analysis of results

### *Exploration of strategic objectives*

The objectives of the case firms to internationalize the business can be described as economic and less economic in nature. However, less economic objectives in nature also contribute to the economic welfare of the firms. In total all the case firms indicated that the main strategic objectives such as, to increase profitability, to increase turnover and desire to reduce risk of business are the main drivers of internationalization. Four of eight case firms (firms A, C, D, E, F) indicated the objective to increase productivity level by expanding internationally. On the other hand, the firms C, D, E, F stressed less economic in nature objectives - to develop human resources. The emphasis was put on the international experience of both CEOs and line managers and carrier opportunities of firms' employees.

The interviewees indicated that global financial crisis, small domestic market of Lithuania and competitive pressure in domestic market have negatively resulted in profit margins. For instance, the interviewee from the firm H explained: *We have observed opportunities in Belarus market several years and it was reasonable taking into consideration our objectives to increase the firm's workloads. We saw a positive experience of our partners – contracting firms.*

Hence, taking into consideration that seven out of eight observed firms have been competing in the national market twenty and more years, the objective to internationalize was linked to the strategic decisions to maintain or enhance competitive position in the construction market. Notably, the firm C was established by merging four independently operating firms in 2008. On the other hand, taking into consideration that all the case firms are private limited firms, the strategic objectives were impacted by the perceptions and objectives of the entrepreneurs. Hence, the ownership of the firm is seen as one of the drivers for internationalization. For instance, the firm F joined Russian corporation, a leader in production of construction materials, in 2001. Hence, the objectives of parent company fostered company's internationalization.

### *Exploration of competencies and competitive advantage*

The findings from the eight case firms revealed that internationalization was influenced by experience in the local market, quality of works and productivity. The experience of the firms allows developing organizational routines impacting competitive advantage over new competitors in the market. The interviewees indicated that availability of skilled labour and unique technological competencies were important motives for internationalization. The interviewee from the firm B explained: *We have been forced to seek opportunities in Russian market striving to maintain our workforce. The financial crisis impacted construction industry a lot and many skilled workers emigrated...*

Notably, an experience in construction industry is knowledge-based advantage. Hence, the case firms emphasize managerial and technical capabilities. Five of eight case firms have developed their technical capabilities due to the narrow specialization and focus on the niche markets. The firms aim to provide consulting, design, construction and renovation of engineering networks (firms A, C, D, E, H) or production of construction materials (D, E, F). Despite the fierce competition in the market these firms established strong and stable positions in their home market. The interviewee from the firm D commented on the firm's competencies: *We apply the most advanced technologies for wastewater treatment equipment and it is logical... Since the firm's establishment we aimed to produce unique products and satisfy our customers. Finally, our capacity impacted expansion to international markets.*

Hence, constant implementation of innovations and quality improvement are seen as the sources of competitive advantage in the six case firms. Notably, implementation of innovations impact costs and time of construction projects and contributes to the firms' profitability. The observed firms stressed the importance to establish long-term relations with the main customers and suppliers. For instance, the firms A, C, D, E, F, H have established long-term relationships with general contractors.

#### *Exploration of strategies*

The observed firms exhibited common characteristics, regarding their approaches to internationalization. Firstly, they gained an experience in the national market. This was primarily due to the peculiarities of construction industry, which requires strong technical expertise and recognition of customers. Once, the firms established themselves in the national market, they recognized the opportunities in international markets.

In the case of the firm A, the strategy was facilitated by the previous networks and experience of the owners. The firm internationalized earlier than the other seven firms that is between 7-8 years after business start-up. On the other hand, the interviewee stressed that internationalization was planned. The relationships with foreign firms were established at the earliest stages of the firm's development. For instance, the interviewee indicated that the firm supply construction materials from Russian suppliers. Notably, the nationality of the owners was also one of the influential factors to internationalize. Hence, previous work experience and nationality impacted the patterns of market selection (namely, Russia and Belarus) and market entry strategies via established joint venture and subsidiary.

The other three firms (C, D, E) internationalized a little later, that is between 9-13 years after business start-up. The firms' strategies were facilitated by the networks established with the local partner firms and the international contacts established in international exhibition. The interviewees stressed that internationalization of some partner firms (namely, customers or suppliers) was the main motive to follow them in international markets and is considered to be ad hoc. In the case of firm D, the internationalization was planned, that is the firm expanded production capacity in local market and entered foreign markets via exporting, representatives and establishment of representative offices. Notably, the firm D targeted several markets at one time. Similar approach was adopted by the firm F.

In the case of the firm G, the internationalization was facilitated by the national tenderer. The firm was the general contractor in Kaliningrad region (Russia) in 2005-2006. On the other hand, the internationalization wasn't planned as a strategy and the firm exploited only short-term opportunities. The representative of the firm G commented: *We had a big project in Kaliningrad region (Russia) in 2005-2006, but our contractor was Lithuanian public institution ..... However, when the project was finished we did not take a risk to expand further. Meantime construction market in Lithuania was growing. Now, we observe situation in neighboring countries again.*

The two firms (B, H) internationalized between 18-19 years after business start-up and opted to international markets via representatives. The managers' perception of institutional constraints in developing countries (namely Belarus and Russia) affected the strategy patterns. The interviewees indicated that both Russian and Belarus markets are attractive in terms of size and growth. However, the differences exist in laws and regulations. For instance the bureaucracy and different norms of construction projects, market regulation in Belarus are seen as the main obstacles for the development of the firms.

## Discussion and conclusions

Notably, the research has investigated the strategy patterns of eight Lithuanian construction companies. All case firms were well-established firms with particular experience in their home market. The firms were selected taking into consideration their experience in international markets. The above research indicates that Lithuanian construction SMEs adopt the approaches, having features of both stage and networking theories.

In total all the case firms first internationalized into the neighboring countries. Taking into consideration market opportunities, the developing countries are seen as the focus of interest. Hence, internationalization to such countries as Belarus and Russia (namely Kaliningrad region) is seen as the natural development of firms' domestic activities. The internationalization process is facilitated by the understanding of culture and language skills that is relevant for the managers of older generation. On the other hand, firms having the capacity to produce construction materials focus on the EU countries, namely Baltic countries, Scandinavian countries and Poland. Hence, internationalization of the firms corresponds to the psychic distance concept, proposed by Johanson and Vahlne (1977) and defined as "the sum of factors preventing the flow of information from and to the market".

However, the development of networks was seen as another success factor of the firms' internationalization. One of the distinctive features of analyzed firms is that networking activities were developed in their home country. In total all the case firms first established long-lasting relationships with suppliers and customers. Hence, the established networks in home country facilitated the development of new relationships with actors belonging to other networks in the foreign countries. Notably, such relationships acted as a bridge to foreign markets and correspond to the network approach of internationalization (Johanson, Mattsson 1993). On the other hand it is possible to distinguish active and passive networking (Ojala 2009). Majority of observed firms adopted the approach of passive networking in international markets when the initiative was taken by other actor such as the intermediate, supplier or customer. The narrow technical expertise of the firms and the focus on the niche markets are seen as the main factors of passive networking. Therefore, the internationalization of these firms is seen as unplanned, reactive and opportunistic and corresponds to the findings of other scholars (Westhead *et al.* 2002). Meanwhile, the firms involved to some extent in the production of construction materials adopted both passive and active networking.

The research has attempted to find out the relationships among the firms' objectives, competencies and the sources of competitive advantage. The firms, which set both economic and less economic objectives, appear developed distinctive managerial, technical and technological competencies. On the other hand, acquired knowledge and information of the firms can be linked to the investments in building management understanding, changed hiring policies of the firms and partnering with others. The successful firms provide high quality services, higher standards and reduce unproductive time of projects. Notably, the aim of the firms to maintain high quality standards requires setting tight control of labour and materials inputs. Therefore, the management of the relationships in the supply chain is of the highest importance and contributes to the superior performance of the firms. These findings are similar to the findings of other research works (Piercy *et al.* 1998). On the other hand, the firms' objectives, competencies and the sources of competitive advantage impact the firms' approaches and patterns of international strategy.

The surveyed firms had different views toward international strategy. Two out of eight case firms focused mainly on the national market and after changes in the environment considered an international expansion. One firm is considering becoming an international again. On the other hand, majority of the firms used international strategies described as of low involvement. Notably, these are common internationalization strategies used by the SMEs. The limited resources, namely human and financial resources of the SMEs are seen as one of the obstacles for further expansion. Majority of the analyzed firms except one adopted specialized internationalization strategies and reflected risk-aversion tendency. These findings correspond to the observations provided by other scholars (George *et al.* 2005), stating that ownership and divergence of interests might induce conservatism that undermines the SMEs ability to exploit opportunities internationally. On the other hand, one of the case firms demonstrates the fact that nationality of the owners and previous work experience impacts greater exposure to international environment.

The obtained results allow providing suggestions for policy makers. The internationalization of SMEs to international markets requires active assistance of government and policy makers. Moreover, internationalization to developing countries with different institutional constraints should be supported by developing assistance programmes and initiatives. For instance, the assistance through various initiatives allowing acquiring information about international markets has significant implications. The support programmes should take into consideration strategic issues of internationalization and management development.

The limitations of the presented research are related with the focus on a single industry and a single country. Thus further validations regarding different industries and countries are required. Based on the findings of this research further research should therefore concentrate on a deeper analysis of differences between strategy patterns in developing and developed countries.

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## ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

ISSN 2345-0282 (online) <http://jssidoi.org/jesi/aims-and-scope-of-research/>SILENT ISSUES OF ICT ERA: IMPACT OF TECHNO-STRESS TO THE WORK AND LIFE  
BALANCE OF EMPLOYEESAgota Giedrė Raišienė<sup>1</sup>, Steponas Jonušauskas<sup>2</sup><sup>1,2</sup>Mykolas Romeris University Ateities str. 20, Vilnius, LithuaniaE-mails: <sup>1</sup>agotagiedre@gmail.com; <sup>2</sup>steponas@bridge2apex.lt

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**Abstract.** The article aims to reveal the impact of techno-stress related to the usage of ICT on work and life balance of employees in Lithuania's organizations. The objectives of the research are twofold: to indicate the sources of techno-stress related to ICT usage at work in the Lithuania's organizations and to identify the impact of the issue on the work and life balance of employees. The paper presents an original research. The research is based on previous results of the analysis of computer mediated communication characteristics in Lithuanian organizations (Raisiene, Jonusauskas 2011; Raisiene 2012). Theoretical background of the given research is based on meta analysis and especially on the works of Tarafdar *et al.* (2011); Murray, Rostis (2007); Ayyagari *et al.* (2011); Park and Jex (2011). A questionnaire survey was applied for the empirical research. The survey was organized with the help of viral network, which involved social networks and chain e-mails. This method theoretically enables the whole researched population to take part. Method is useful due to its ability to reach significantly more representatives of different professions and sectors in a short period of time and with minimal resources in comparison to the method of sending questionnaires to particularly chosen organizations. The data of the empirical research was processed using a program SPSS Statistics. The results of the research reveal that employees in Lithuania are working under high techno-stress conditions that are formed by objective changes in global environment, organizations' leaders' attitude to ICT possibilities of increasing employee work efficiency, and by the behavior of the employees themselves. 75 % of the employees are affected by techno-stress, and 41 % of the respondents are suffering from work and life imbalance. It is necessary to critically appraise the benefits and disadvantages of life and work style, and to learn to better adapt in the environment of new technologies. It should be highlighted that a big part of this responsibility should be taken by the leaders of organizations. There were no preceding researches on employee techno-stress in Lithuania. It is hoped that the results of the research will make this important problem more relevant, as it has an influence on organizations' efficiency, people's life quality and development of healthy society.

**Keywords:** Techno-stress, work and life balance, Information and Communication Technologies, organization management, life quality, Lithuania

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**JEL Classifications:** M10, M15

## 1. Introduction

Modern variety of information communication technologies (further in the text - ICT) enables the employees to accomplish their assignments independently of time and place, adjust their personal life and work related commitments. Despite of undisputed benefits of ICT, more and more scientists who examine the factors of organizational effectiveness and employee efficiency warn that techno-stress has a negative impact on employee well-being and work motivation, causes health problems and reduces performance. Scientific literature refers to this sort of tension as techno-stress (Ayyagari *et al.* 2011). It is a fact that the penetration of modern information and communication technologies is especially active in Lithuania and people widely use ICT for personal needs. Considering this fact, an assumption could be made that the society has a positive attitude to ICT. The majority of

the society is able to perceive the innovations of ICT relatively fast and feel confident about using their advantages. Does this mean that employees of Lithuanian organizations, who intensively use ICT to accomplish their work assignments undergo less stress, maintain high efficiency and coordinate work and leisure time better, compared to the situation in western countries? This question describes the problem of the scientific research analyzed in this article. The objectives of the research were twofold: to indicate the sources of techno-stress related to ICT usage at work in the Lithuania's organizations and to identify the impact of issue to the work and life balance of employees. The article consists of four parts. The first part discusses the effect of techno-stress. The second part presents the conceptual framework of the research. The methodology of the empirical research is introduced in detail in the third part. Fourth part of the research discusses the results of the research and forms insights. Conclusions are given at the end of the article.

## 2. Effect of techno-stress on the individual

The term “techno-stress” was first introduced by a psychologist Craig Brod in the year 1984, in his book “Techno-stress: the price of computer revolution for a human”. The author defined techno-stress as a modern health disorder, rising from an individual's incompetence to rationally adapt in an environment filled with technologies (Brod 1984). Researcher Champion (1988) highlights, that techno-stress is a serious health problem, which is accompanied by panic, anxiety, resistance to innovations and leader's orders, techno-phobia, mental fatigue, physical ailments, tightened boundaries of tolerance, perfectionism. In addition, later researches approved that communication with the help of technologies increases the negative stress felt by the communicating individuals. One of such researches was carried out by Barley *et al.* (2001), who investigated the growth of interpersonal communication technology usage and the consequences that follow it. Assessed overall, techno-stress is considered as a negative phenomenon. What causes it and what are its consequences? Through informational technologies, the employees can easily and quickly reach the information needed for work, work out of office and share insights with colleagues real-time. Unfortunately, technologies make workers feel dependent on the constant connection with others more and more. Nevertheless, following processes could be called “communication” only relatively because necessity to make a lot of extra decisions. This necessity arises when workers wish to react to work information that is flowing in a constant stream on time. Finally, the conditions of intense communication leave no time to think over and discuss ideas. In the previous decade, a research carried out by Tu *et al.* (2005) showed that the most obvious symptom of techno-stress is a decrease in work efficiency. Researches of Tarafdar *et al.* (2010) reveal that techno-stress negatively affects individual's cognitive abilities, e.g. the ability to make decisions, and finally leads to unsatisfactory work results. Furthermore, scientists who analyzed direct users of computers noticed, that factors generating techno-stress lead to a plunge in work satisfaction, which in turn determines a weakening in dedication to the organization (Ragu-Nathan *et al.* 2008). Conner (2012) states that feeling of deteriorated memory, impatience to others, increasing inability to rest, dizziness, appetite and digestion disorders, back pains, increased heart rhythm and troubled sleep is determined by a quick life pace, which is typical nowadays, not necessarily by the use of technologies. However, the author also notes that technologies that are designed to ease the troubles of work and house-chores did not reduce tension, but instead enabled people to plan additional activities and accept more duties. In conclusion, techno-stress is a problem arising from daily and intense use of technology, which has a negative effect on the employees' health, work efficiency and life quality.

## 3. Research conceptual framework

Theoretical background of the given research is based on meta analysis and especially on the works of Tarafdar *et al.* (2011), Murray and Rostis (2007), Ayyagari *et al.* (2011), and Park and Jex (2011). Tarafdar *et al.* (2011) is the most cited author. He reported assumptions of techno stress which are techno-overload, techno-invasion, techno-complexity, techno-insecurity and techno-uncertainty. Further these factors are briefly discussed:

- **Techno-overload.** ICT creates the impression that professionals can work more and faster when using it. In other words, the staff feels the pressure to accomplish more in less time. Globalization and competitive nature of business composed “scared” organizations which are based on the principle of rewarding people who work exceptionally hard and spend much more hours at work in comparison with others (Ayyagari *et al.* 2011).
- **Techno-invasion.** Thanks to ICT, workers are potentially accessible everywhere and at any time. Organizations use this technology feature widespread. A prevailing attitude in business environment is that modern staff should be compassionate and employees must ensure that they will be accessible all the

time, because competitive organizations must function without interruption. Employees are bombarded with ICT, and experiencing intervention in their personal space and time. So work-life imbalance can be seen not only as a cause of stress, but also as an outcome. For example, Murraray and Rostis (2007) study showed that e-mail, mobile phones and other mobile devices cause stress, and make it easier for work to invade the individual time and life of a person. When the boundaries between work and non-work are blurred, the quality of life declines, as well as the employee productivity. Research of work and family time overlap done by Park and Jex (2011) showed that the perpetual presence of an employee „on-line“ causes annoyance to the person, because he cannot focus enough on the family, household or recreation. Personal issues of employee are often set aside during working day. On the other hand, it is the reason, why the employees arrange family vacation and leisure, communicate with friends, taking a look to daily press online and so on at the work place. During and after the work day the employees are torn between personal and working matters. Van Steenbergen *et al.* (2009), Peeters *et al.* (2013), Park and Jex (2011) have confirmed that overlapping of work and family affairs triggers various tensions, and also causes emotional exhaustion, depression, dissatisfaction with work and life in general.

- **Techno-complexity.** Complexity of organizational information system is forcing practitioners to periodically take the time and effort for learning how to use new and updated technologies. Employees begin to feel tension because they can neither avoid the increased workload associated with additional learning nor regulate the volume of learning.
- **Techno-insecurity.** It occurs in situations where employees feel threatened of losing their jobs, due to the co-workers having better mastered the new technology. It is quite normal that new, often younger staff is coming into the organization due to having a higher level of technological knowledge.
- **Techno-uncertainty.** Professionals may feel that they do not have enough experience in the field because of continuous organizational and technological change. Employees feel anxiety because they find that their knowledge is becoming outdated very quickly.

Some authors also argue that techno stress might not have a very negative impact on the quality of employees personal life only in the case of absence of psychological pressure used by managers to proceed parallel with multiple technologies in daily work of employees (Çoklar and Sahin 2011). In conclusion, it could be emphasized that the technology provides a global business freedom, but it is almost impossible to “disconnect” from the problems of work, to have clear work-and-life boundaries, which is essential to maintain good personal health. Organizations’ managers have the expectation that employees understand the business challenges of the new era and are willing to make a sacrifice in the name of the organizations’ achievements.

#### 4. Research methodology and socio-demographic data of the respondents

A questionnaire survey was applied for the empirical research. The survey was organized with the help of viral network, which involved social networks (Facebook, LinkedIn) and chain e-mails. This method theoretically enables the whole researched population to take part. Method is useful due to its ability to reach significantly more representatives of different professions and sectors in a short period of time and with minimal resources in comparison to the method of sending questionnaires to particularly chosen organizations. The data of empirical research was processed using a program SPSS Statistics. Survey population was unknown. Theoretically, ICT can be used by all Lithuanian workers. Based on this premise the study population is composed of approximately 1,272 million (Statistics Lithuania 2013). According to simple random sampling methodology a representative population should consist of a minimum of 384 respondents (for 95% reliability). 395 properly completed questionnaires were received. Table 1 presents the socio-demographic data of respondents. Respondents were offered a closed type questionnaire. The questioned were asked to express their opinion by choosing one of five answers: Strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. To analyze the results, answers were evaluated using Likert’s (total evaluation) scale, where the answer “Strongly agree” was evaluated by 5 points and “Strongly disagree” was evaluated by 1 point.

The research questionnaire was composed of eight segments: 1. *ICT in the organization.* Questions were given to find out the nature of ICT change in organizations and the importance of ICT for organizing the employees’ work and collaboration; 2. *Properties of assignment organization and accomplishment.* The questions in this segment were meant to ascertain how intensively is ICT used by employees while performing their tasks; 3. *ICT and personal time.* Questions were formed that allowed to evaluate the harmony (and its possibilities) between employees’ personal and work life; 5. *Dependency on ICT.* The questions were given with a goal to identify if the organizations’ employees have a choice of work medium and tools and opportunity to decide whether to

accomplish the daily work assignments with or without using ICT; 6. *ICT and self-consciousness*. In this segment, respondents were asked to describe their physical, psychological and emotional state and typical behavior that, according to the respondents, is related with the use of ICT to accomplish daily assignments; 7. *Satisfaction in work and personal life*.

**Table 1.** Socio-demographic data of the respondents

No.	Category	Variant	Frequency	Percent
1.	All respondents	All respondents	395	100
2.	Gender	Female	291	73,7
		Male	104	26,3
3.	Age	<30	126	31,9
		30-39	124	31,4
		40-49	87	22,0
		50-59	50	12,7
		>60	8	2,0
4.	Education	Secondary education	7	1,8
		College	21	5,3
		Higher education	367	92,9
5.	Represented sector	Private	178	45,06
		Public	191	48,36
		NGO	7	1,77
		Other	19	4,81
6.	Role at organization	Manager	72	18,2
		Specialist / administration staff	305	77,2
		Operation personnel	16	4,1
		Other	2	0,5

Source: authors

These questions were used to find out how respondents evaluate their work and personal life quality, health condition, resources of inner energy; 8. *Common information*. Respondents were asked to identify their age, gender, education, branch of activity of their represented organization etc. This article presents only those research results that reveal the specifics of ICT usage in organizations and allows to describe the aspect of employees' work and personal life balance. All the data of the research is being prepared for publishing in a special science study.

#### 4. Research results

Research data shows that employees intensively use ICT to accomplish their daily work commitments (Table 2).

**Table 2.** Intensity of ICT use for accomplishing daily work assignments

Respondents' answers	Strongly agree, % (Frequency)	Agree, % (Frequency)	Neither agree nor disagree, % (Frequency)	Disagree, % (Frequency)	Strongly disagree, % (Frequency)	Evaluation of stressor, %, (points)
Evaluation points	5	4	3	2	1	
<b>Factors determining technostress (stressors)</b>						
Working with several ICT tools at the same time	43,3 (171)	36,5 (144)	14,7 (58)	4,8 (19)	0,8 (3)	<b>83,4 (4,17)</b>
Task overlapping, difficulties identifying work beginning and end	34,2 (135)	39,2 (155)	17,0 (67)	9,1 (36)	0,5 (2)	<b>79,4 (3,97)</b>
Necessity to work quicker due to increase workload	27,6 (109)	42,8 (169)	22,0 (87)	7,1 (28)	0,5 (2)	<b>78,0 (3,90)</b>
Work overloads	17 (67)	31,6 (125)	30,1 (119)	19,0 (75)	2,3 (9)	<b>68,4 (3,42)</b>

Source: authors

Almost 80 per cent of the questioned marked that their work process is very tense, due to the need of communicating and executing tasks using several ICT channels and tools at the same time. Only 5.6 per cent of the respondents claimed that their work routine is not tense. Assignment overlap is typical for the work of research

participants as well. 73.4 per cent of the respondents emphasized not being able to unambiguously identify the end of one assignment and the start of a new one, due to executing multiple tasks in parallel. In addition, 70.4 per cent of the questioned state that they need to work more quickly in order to cope with the amount of assignments. Having analyzed the employees' medium of task execution and the possibility its choice, it was found out that nowadays employees are significantly dependent on ICT. Without ICT they would not be able to fulfill the majority of their commitments, receive and deliver information, communicate (Table 3). The research data shows that 85.6 per cent of the questioned execute particular tasks obligatory in their organization's internal network (e.g. filling reports, prepare and deliver documents etc.). In addition, 76.5 per cent of the research participants claimed that the inner network of the organization includes a catalogue of shared documents that is available and mandatory to use by all organization's employees. On a tight scale, tasks in organization's informational system are only executed by 5.4 per cent of the respondents. It is important to emphasize that the respondents are not able to think of any alternative medium for executing tasks. 94.1 per cent of them state that ICT has become a compulsory daily work medium and tool. 88.1 per cent of the questioned could not work without a computer. Employees' interpersonal and intergroup communication also usually takes place in the virtual space. This statement was essentially supported by almost 67 per cent of the research participants. As it is obvious from the research results, employees' dependence on technologies is very strongly expressed. During the research, respondents were asked about their attitude to the alternation of informational communication technologies in their represented organizations. A question was given whether the programs and hardware used by employees were updated often.

**Table 3.** Dependence on ICT for accomplishing direct responsibilities

Respondents' answers	Strongly agree, % (Frequency)	Agree, % (Frequency)	Neither agree nor disagree, % (Frequency)	Disagree, % (Frequency)	Strongly disagree, % (Frequency)	Evaluation of stressor, % (points)
Evaluation points	5	4	3	2	1	
<b>Factors determining technostress (stressors)</b>						
Wide scale of task execution with the help of ICT	43,3 (171)	42,3 (167)	9,1 (36)	4,1 (16)	1,3 (5)	<b>84,4 (4,22)</b>
High volume of electronic documentation	37,5 (148)	39 (154)	10,9 (43)	8,4 (33)	4,3 (17)	<b>79,4 (3,97)</b>
Lack of alternatives to ICT usage	63 (249)	31,1 (123)	3,5 (14)	2 (8)	0,3 (1)	<b>91 (4,55)</b>
Task execution with the help of a computer	58,2 (230)	29,9 (118)	7,6 (30)	3,8 (15)	0,5 (2)	<b>88,4 (4,42)</b>
Transferring communication processes into virtual space	25,3 (100)	41,5(164)	17,7 (70)	14,4 (57)	1 (4)	<b>75,2 (3,76)</b>

Source: authors

In addition, the respondents were asked to evaluate the need of constantly and often renewing their knowledge in order to effectively use the advantages of updated ICT. The distribution of respondents' answers is presented by Table 4. According to the data of the research, a statement could be made that Lithuanian organizations use the *most modern innovative* ICT. This statement was supported by 75.6 and denied by 11.4 per cent of the respondents.

**Table 4.** Pace of ICT alternation

Respondents' answers	Strongly agree, % (Frequency)	Agree, % (Frequency)	Neither agree nor disagree, % (Frequency)	Disagree, % (Frequency)	Strongly disagree, % (Frequency)	Evaluation of stressor, % (points)
Evaluation points	5	4	3	2	1	
<b>Factors determining technostress (stressors)</b>						
Periodicity of ICT updates: use of innovative ICT	34,6 (138)	41 (162)	12,7 (50)	10,1 (40)	1,3 (5)	<b>79,6 (3,98)</b>
Constantly renewed computers	14,9 (59)	42,8 (169)	19 (75)	19,7 (78)	3,5 (14)	<b>69,2 (3,46)</b>
Annual alternation of organization's website	13,4 (53)	37,7 (149)	23,8 (94)	22,3 (88)	2,8 (11)	<b>67,4 (3,37)</b>
Necessity of ICT knowledge updating and perfecting in order to accomplish simple assignments	12,2 (48)	51,1 (202)	24,1 (95)	12,2 (48)	0,5 (2)	<b>72,4 (3,62)</b>

Source: authors

To sum up, Lithuanian organizations update ICT often and change them to newer versions and improved products. This conclusion is grounded by the support of 63.3 per cent of the questioned, who claimed that employees have to constantly supplement their ICT knowledge, as without improvement they would not be able to accomplish their responsibilities. Only 12.7 per cent of the employees do not think that persistent learning is irrelevant. These people undergo considerably less techno-stress than individuals who are characterized with lesser self-confidence and self-discipline. The research results have shown that only a mediocre self-confidence is typical to the survey participants. Individual behavior is especially important to consider when talking about employees' techno-stress. Coordinating and balancing work and rest should be an employees' responsibility and choice. Unfortunately, the research has shown that work and rest regime is only concerned by less than half of the employees (Table 5). 41.5 per cent of the respondents admitted constantly working with the help of ICT after work hours and on weekends. 47.3 per cent of the questioned *do not use* ICT tools for work in their leisure time. And another 11.1 per cent claimed only sometimes working after work from home. Sacrificing personal time for work reduces the employees' possibility to recover strength, have enough rest from work assignments both psychologically and physically. Moreover, it harms the employees' life quality and their work efficiency. This assumption is supported by the respondents' evaluation of inner energy and time dedicated to communication with family and friends. Respectively 44, 41 and 44 per cent of the questioned are partly dissatisfied or dissatisfied with the discussed fields of self-consciousness and personal life. In addition, one fifth (respectively 22, 20 and 20 per cent) of the respondents are only partly satisfied by these fields.

**Table 5.** Individual behaviour and self-confidence

Respondents' answers	Strongly agree, % (Frequency)	Agree, % (Frequency)	Neither agree nor disagree, % (Frequency)	Disagree, % (Frequency)	Strongly disagree, % (Frequency)	Evaluation of stressor
Evaluation points	5	4	3	2	1	% (points)
<b>Factors determining techno-stress (stressors)</b>						
Imbalanced work and leisure time	19,2 (76)	22,3 (88)	11,1 (44)	28,1 (111)	19,2 (76)	<b>58,8 (2,94)</b>
High motivation to gain/update knowledge that eases work with ICT	2,3 (9)	15,4 (61)	27,3 (108)	42,5 (168)	12,4 (49)	<b>50,5 (2,53)</b>
Wide scale of usage of ICT benefits	4,6 (18)	27,3 (108)	29,1 (115)	33,2 (131)	5,8 (23)	<b>58,3 (2,92)</b>

Source: authors

The respondents have also claimed that they feel inspiration or the wish to be enterprising increasingly rarer. This statement was supported by 34 per cent of the respondents, whereas 33 per cent chose the answer "sometimes". A statistically reliable relation of medium strength was found between unbalanced work and leisure time and employees' inner energy resources ( $r_s = .569$ ,  $p < 0,01$ ). Work and rest balance factors strongly correlate with a possibility to dedicate time for communicating with family ( $r_s = .793$ ,  $p < 0,01$ ) and have a medium correlation with the possibility to communicate with friends ( $r_s = .606$ ,  $p < 0,01$ ) (Table 6).

**Table 6.** Correlation between the respondents' satisfaction in work-and-rest balance and an opportunity to dedicate enough time for communication with family and friends

	Spearman's rho	Possibility to dedicate time for communication with family	Possibility to communicate with friends	Satisfaction in one's inner energy resources
Satisfaction in the balance of work and leisure time	Correlation Coefficient	,793**	,606**	,569**
	Sig. (2-tailed)	,000	,000	,000
	N	395	395	395

Source: authors

\*\*. Correlation is significant at the 0.01 level (2-tailed)



While summing up all the data of the empirical research, it was found that most of the techno stressors were evaluated as distinctly expressed. It is obvious that employees are undergoing high techno-stress while executing everyday tasks, which negatively affects their efficiency and quality of personal life.

## Conclusions and implications for the practice

An empirical research has shown that the Lithuanian workers face with constant techno stress, resulting from: global environmental change, namely, inter-organizational and interpersonal competition and technological development speed; the managers' attitude towards ICT capabilities of enhancing employee performance; and behavior of the employees themselves.

Conditions for negative effects of techno-stress for workers are favorable in Lithuania, because:

- ICT in organizations is widely applied in practically all areas of activity - from communicating, arrangement of documents to multi-tasking in organization's information system and customer service. Therefore, staff is strongly dependent on ICT all their working time. This means that such effective methods as task variety and job enrichment, can no longer keep employees' work efficiency up because the vast majority of the tasks must be carried out with ICT tools. Continuous and intensive involvement into the task's implementation is an assumption for emotional burnout. The Lithuanian workers live in a real danger of emotional burnout. This argument can be grounded by the fact that the majority of the respondents feel a decrease in the amount of internal energy and inspiration as well as a weaker willingness to be proactive. It is important to emphasize that as much as 75 percent of the surveyed employees notice that their work pace is slowing down in spite of using ICT only for their work in organizations.
- Employees experience the so called techno overload because of parallel work with several ICT tools. Due to the high amount of tasks employees feel psychological pressure to work faster and longer. Due to this reason, 52.6 percent of the staff continues to work from home in their personal time. 41.5 percent of respondents are practicing that constantly. This situation shows that the organization's managers have exaggerated expectations about ICT in relation to the increase in employee productivity. They lack work-flow planning skills and knowledge about the effects of stress on employability as well.
- When working after the working time, staff cannot devote sufficient time to their individual needs and personal liabilities. The study found a strong positive relationship between job satisfaction, work and life balance and the time allocated to the family. Moderate relationship was found between satisfaction with work and life balance and the time spent on maintenance of social relationships. Research also showed that employees who are using ICT intensively have less internal energy reserves. Thus, the study shows that ICT plays a role of a bridge and allows the work to break into the private lives of employees.
- In Lithuanian organizations, employees as well as employers and managers, lack knowledge on stress, as well as the awareness of taking care to maintain efficiency and to preserve health. When asked whether they work from home after work time, respondents mentioned that they do not work, only "handle work correspondence by e-mail", or "discuss the project issues with team members by phone" or "appoint a couple of hours for a calm review of reports", and so on. Employees do not understand that they are working! This paradox is caused by the mentality of work overestimation in Lithuania.
- ICT is evolving rapidly and changing substantially. This causes the so-called technological uncertainty. It is a situation where the technology is improving faster than the staff can become proficient in the use of additional or completely new ICT opportunities. Employees are forced to constantly feel insufficiently competent. In addition to technological uncertainty, workers' need to constantly take care of updating their knowledge on ICT. The techno-overload and imbalanced workload makes the phenomenon of techno-stress an inevitable part of daily life for workers.

It should be noted that techno-stress and decrease in performance, and work and life imbalance are caused not by the ICT itself, but by the human behavior while using ICT for work. Both employees and managers of organizations need to understand that ICT does not eliminate the need for employees to follow work and leisure regime. Especially managers need to be more responsible when planning organization's activities, and each individual employee's workload.

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**ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES**ISSN 2345-0282 (online) <http://jssidoi.org/jesi/aims-and-scope-of-research/>**MOTIVATION TOOLS THROUGH LENSES OF PROSPECTIVE EMPLOYEES****Margarita Išoraitė***Didlaukio str. 49, LT-08303 Vilnius, Lithuania**E-mail: misoraite@gmail.com**Received 3 October 2013; accepted 30 November 2013*

**Abstract.** This article examines the theoretical aspects of employee motivation tools. A study conducted at V.A.Graičiūnas high management school. The results showed that most of respondents evaluated very good the physiological needs, the second - the security requirements, third place - the respect and esteem needs, the fourth - the needs of self-expression, in fifth place social needs. In terms of importance of motivating factors respondents evaluated wages and social security vacation time. Most respondents have got the monetary reward, a salary bonus, fixed bonuses for a job well done, insurance against accidents at work, professional phone and various benefits.

**Keywords:** Employees, motivation, employee motivation tools.

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**JEL Classifications:** M12, M51, M54

**1. Introduction**

In today's world of human resources plays a large role in the organization. They are also called the blood of the organization. Human resource motivation literature deserving of special attention. Many of motivation theories focus on review and evaluation. The motivation measures and their role in the organization written many scientific papers foreign and Lithuanian authors like Kim (2005), Kumpikaitė and Kalinauskienė (2011), Marcinkevičiūtė (2003, 2005, 2006), Musulaitė and Labžentienė (2008), Palidauskaitė and Segalovičienė (2008), Čerbatik (2010), Žaptorius (2007), Sakalas (2001), Atkinson and Feather (1974), Atkinson and Litwin (1960), Atkinson and Raynor (1978).

Research problem. The man with the ability and desire to work seen as the main driving force has declared a number of years. Therefore, the practical reasoning systems, their functioning and evaluation still requires a deeper study. This is especially true of the situation in Lithuania, where just last year realized that employee motivation is more than the promotional tools. Of course, it is wrong to say that so far that Lithuanian organizations or institutions motivation systems were not. They were, however, it is only a means of motivation (eg. wages, bonuses, leisure and so on.). But nevertheless a practical systematic approach to the reasoning aspect of the realization of Lithuanian organizations or institutions are becoming increasingly important. In terms of motivation to work and work well, it comes to the abundance of factors stimulating work. This includes wages and salaries, and self-fulfillment, and respect, and self as belonging to a particular organization or team perception and career, and the creative atmosphere and bonuses, and management's confidence and ability to establish it. Motivating factors motivate different people differently. What is very important to the governor, is not necessarily as important and his subordinate, so to motivate your employees, employers should periodically talk with your employees and

explain how employees satisfied with their work and what they are missing. Organization leaders must anticipate what will be their business, what, when and how they will have to implement the task. Performance and effects of the work of employees, so their competencies, attitudes, values determined by one or another of their behavior. Leaders must monitor employees' behavior and direct it to the organization in the right direction. The head has to pay to use their staff intellectual and spiritual potential. In enterprises where employers care about their employees and strives to meet their needs, job satisfaction, and hence the motivation to work on more. Employee motivation is realized depending on the organization and the needs of employees and the necessity, influenced by the environment. This requires the environmental and organizational needs analysis and, especially important to find out the individual needs of employees, because in order to motivate people to be aware of their properties, which in turn leads to their needs. The article aims - to assess employee motivation tools to their needs and abilities. To achieve this set the following tasks:

- To analyze the theoretical aspects of employee motivation;
- Investigate the respondents' views on employee motivation tools to their needs and abilities.

The paper used in the scientific literature analysis, questionnaire methods.

## **2. Employee's motivation theoretical aspects**

Greenberg and Baron (2003) state, that motivation is set of the process that arouse, direct and maintain, as it is more realistic and simple as its consider the individual and his performance. Helepotė (2005) defines motivation as person active participation and commitment to archieve the prescribed results. Education Development Center (2012 ) argues that employment skills can be defined as a planned activity through the work-related contexts are educated work-related skills: analyze and think critically, solve problems, communicate successfully, to achieve the result, to be able to learn to set priorities and stay organized, resist stress, to work with others, to take a leadership role. The depth of the financial crisis are now extremely difficult to predict the future of the global economy, but in order to revive Europe, it is necessary to strengthen human capital and employability by upgrading skills. However, for training at the skills is not enough: it is equally important to ensure a better match between skills supply and labor market demand compliance. Skills are very important for the recovery of the short and long-term growth and productivity, for its jobs and its capacity to adapt to changes in justice, gender equality and social cohesion. However, having a job and are able to work is essential and motivation. Motivation is a tool for achieving organizational goals.

The literature distinguishes two motivation measures were material and immaterial means of motivation. Studies show that the material measures are effective means of organizational goals. Kumpikaitė, Kalinauskienė (2011) state that motivation is very popular and often is on the topic of the scientific literature Motivation researchers were interested in the problem ever since the ancient times. There are written many scientific papers on the subject at issue of motivation causes and origins, distinguished form of motivation, and types and so on. In the global economy, the country's governance, enterprise business organization, it is of great importance to properly motivate the people who carry out one or the other activity. So far, the motivation to human reason was the very large issue, but its application in practice - rather weak. Correctly motivated organization, an organization will enhance operational efficiency, but it is not fully understood Lithuania corporate executives and employees do not always want both tangible and intangible reasons. Motivation purpose - to encourage workers. It took place at all times, even if it was not named as a motivation or encouragement. In earlier times, the role of motivation by fear, and only a small number of gifts. Nowadays it is necessary to understand the reasoning, it's a big range of people's needs, which are expected to satisfy the job. Therefore, the manager seeking to maximize results and rational that without dedicated employees for their work , it is not possible to achieve this it is essential to be able to recognize the needs of the people and try to get them to be satisfied with the work process (Čerbatik 2010). Familiarity with the needs of employees is a complex process, which is the company's directors are very demanding, but quite effective way. Marcinkevičiūtė, Petrauskienė (2009) argues that literature can meet the various theories of motivation classifications which refer to employee performance and the reasons for their choices.

Most motivation theories developed in the U.S. and apply to Americans. The most obvious characteristic of these theories of the American feature is that the strong emphasis on individualism and quality of life factors. Common among these theories is that the most important role of the person's knowledge, to choose what is important to him

and the circumstances under which he works. Employees in every organization have material and immaterial motivation. Sometimes employees work more immaterial measures such as career opportunities, training and good relationship with the manager, teamwork. However, the staff also works and material means of motivation, such as wages, bonuses, and so on. Musulaitė, Labžentienė (2008) states that according to the wishes of staff knowledge and timely satisfaction of atsklisti helps and exploiting every organization the staff competence, creativity, imagination, experience and expertise.

Motivation theory helps to understand the dynamic relations between the world in which the organization operates, show relationships between superiors and subordinates in the organization. Palidaukaitė, Segalovičienė (2008) argues that employee motivation is the subject of the age of both psychology and management and the sociology of organizations, as well as other fields of science theorists and practitioners attention. This problem is dealt with management theorists such as Marcinkevičiūtė (2003, 2005, 2006), Sakalas (2001, 2003), Pritchard and Ashwood (2008) and others dealt with employee motivation and reasoning problems. Most of the studies that led to the theory of motivation have been carried out in the private sector. We are well aware that a major private sector organizations is the pursuit of profit, and public sector institutions aim - to meet consumer needs and expectations. Maslow's theory of motivation (1943) classified the human needs into five hierarchical levels of the pyramid. They would include:

- Physiological needs (hunger, thirst, sleep and so on.);
- Security needs (physical and social security);
- Social needs (the need for love, demand);
- Respect and esteem needs (success, recognition, evaluation, approval requirements);
- Expression needs (personal development, creativity, performance actualization of individuality needs).

According to Žapatorius (2007) motivation theory helps to understand the content of a dynamic relationship world in which organization, describing the daily management and employee communications organizations.

Early theories of motivation are:

- The traditional model of managers defines the most effective methods of performing the task, and then encourages staff salary system. This model can not be applied for a long time, because the material to motivate employees by the employer can not for a long time.
- People relationship model number of tasks tedium and repetition reduces motivation, while so - played by social contact helps to build motivation and strengthen it. Here it is important to maintain a good relationship with the staff. Motivate them to praise and honor letters.
- Human resources model subordinates may manipulated, then the simplified motivational significance and focuses on the monetary and social relations. Various means in order to maintain good workplace specialists are cherished employee performance in their job satisfaction.

### 3. Research data analysis

The research was conducted V.A.Graičiūnas high management school in 2013 of January. The study involved 108 students. 37 percent respondents were male and 63 percent respondents were female. 39 percent respondents were 18-20 years of age, 61 percent. - 21-24 m. age. The sample was calculated when the population size is known. Sample size was set according to the formula:

$$n = \frac{N \cdot 1.96^2 \cdot p \cdot q}{\varepsilon^2 \cdot (N - 1) + 1.96^2 \cdot p \cdot q}$$

where N - size of the population; value of 1.96 meets the standardized normal distribution 95 percent level of confidence; p is a planned event probability that the feature will occur in the target population (most likely taken the worst option - a feature typical half, or 50 percent. populations, and choose p = 0.5); q is the probability that the symptom to occur in the target population (q = 1-p = 0.5); ε is the desired accuracy, usually ε = 0.05

The respondents were asked the question “Have you ever heard of employee motivation tools?” 67 percent respondents have heard and spoken as well and 33 percent respondents were not - not heard. Respondents were asked to rate the importance of Maslow's needs. Respondents' opinion of the average is presented in Table 1. As can be seen from Table 1, best most respondents evaluate the physiological needs, the second - the security needs

of the third place - the respect and esteem needs, the fourth - the needs of self-expression, in fifth place social needs.

**Table 1.** Respondents' views on the importance of Maslow's

The importance of Maslow's hierarchy of needs	Point average
Physiological needs (hunger, thirst, sleep and so on.)	3,8
Security needs (physical and social security - to protect against the pain, the fear, the right to education, work, retirement)	3,7
Social needs (the need for love, the need for belonging to a group)	2,3
Respect and esteem needs (success, recognition, evaluation, approval needs)	2,7
Expression needs (personal development, creativity, performance actualization of individuality needs)	2,6

*Source:* developed by author

Respondents were asked to rank by relevance motivating factors. Respondents' opinion is given in Table 2.

**Table 2.** Motivation factors

<i>Motivation factors</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>
desire to excel		18				10	26		8	19	1	9
interesting work		17	10		9	18		17	17	11		9
good relationships with managers and colleagues			9	18	9		8	19	18	9	18	
Satisfaction	10		10	16	9	9	9	18	9	18		
Salary	20		8			17	9	9	9	9	17	10
the importance of the work	9	18	9		18	9	18	9	9		9	
periodically rising wages		10		26	17	10	18		9	9		9
social security	20	16	9	9		9		18	9	9	9	
working conditions		8	8		8	15	18		9	9	18	9
workplace safety		18	9	18	9					18	9	9
Leave	36		18	18	9						9	18
career advancement	9		18	9	9	9		9	9			36

*Source:* developed by author

The respondents were asked the question “What do you value most at work?” 47 percent respondents said that they appreciate the opportunity to use their abilities, 87 percent - a good salary, 38 percent - an opportunity to improve their professional-level qualification. At least 10 percent of the respondents - the ability to be self-employed and 17 percent - creativity. The study showed that the vast majority of the respondents are mostly due to the good salary and the opportunity to use their abilities. Hence respondents most motivating good salary (Table 3). The respondents were asked the question “what skills are needed most managers?” 67 percent respondents believe that the ability to provide perspective, 46 percent - the ability to control the work of others, 35 percent - the ability to adjust the production process.

**Table 3.** Respondents answer to the question “What do you value most at work?” (Choose three answers) opinion distribution

Value tools at work	Percent
Creativity	17
The ability to use your abilities	47
The ability to lead positions	35
Work friends recognition	-
The ability to upgrade their professional qualification-level	38
The ability to be independent	10
Good salary	87
The friendly staff	-
Other	-

*Source:* developed by author

The results showed that most managers need the ability to provide perspective. Thus, the manager must have the ability to plan strategically. It is also a very important time of the respondent's ability to control the work of others (Table 4).

**Table 4.** Abilities most needed for managers

Abilities most needed for managers	Percent
The ability to provide perspective	67
Being able to use the employee reserve	17
The ability to regulate the production process	35
Ability to innovate	17
Ability to delegate tasks	33
The ability to control others work	46
Being able to complete the work on time	17
Being able to properly promote and punish	-
Ability to train others to work	-
Other	-

*Source:* developed by author

Respondents were asked to rate the material motivation measures. Respondents' opinions are presented in Table 5.

**Table 5.** Respondents' views on the tangible motivation measures

Tangible measures	5	4	3	2	1
	frequency	Frequency	frequency	frequency	frequency
Reward	90		9		9
Addition to salary	45	36	18		9
3. Fixed bonuses for a job well done	45	36	9	9	9
4. Accessories for the achievement of collective results	9	27	40	9	9
5. The premium for these years	40	18	18	18	9
6. Gifts - Certificates (eg, shopping for any given store)	40	18	18	9	18
7. Purchase of tickets to the sports club, theater, concerts and so on.	9	18	18	40	18
8. Given access to the organization's machine	9	40	9	9	9
9. Reimbursement of transport costs	45		45	9	9
10. Discounts buying company's products (phones, phone accessories and accessories)	40	18	18	18	9
11. Insurance against accidents at work	54	36		9	9
12. Sending internships and seminars (eg, sales, customer quality)	36	27	18	9	18
13. Payments to pension funds	18	63	18		9
14. Informal organizations holidays (eg, summer and winter holidays)	27	36	18		
15. Specialized clothing	18	36	36	9	9
16. Personal phone calls and bills for payment	54	36		18	
17. Holiday gifts (eg, St.. Occasion of Christmas)	40	9	54		9
18. Miscellaneous allowances (birth, funerals, birthday occasion and so on.)	54	27	9	18	9

*Source:* developed by author

As can be seen from the table, most respondents pay attention to the monetary reward, a salary bonus, fixed bonuses for a job well done, insurance against accidents at work, the working phone and the various benefits. Fewer respondents enhancements for the achievement of collective results, purchase of tickets to the sports club, theatre, concerts and so on, given access to the organization's machine. It can therefore be concluded that the respondents most motivated monetary reward.

Respondents were asked to rate the importance of the aspects of the work. Respondents' opinions are presented in Table 6. As seen respondents strongly influenced by employee training (courses, seminars, lectures, etc.), Company culture and employee philosophy, increase employee satisfaction, compatibility, flexible working time, promotion, permanent staff assessment, the relationship between pay and performance. The respondents were asked the question, "What is job for you?" 65 percent respondents said that work - only source of income, 65 percent - source of income and the opportunity to realize their abilities and experience, 37 percent - source of income and satisfaction with participation in common activities.

**Table 6.** Working importance

Working importance	5	4	3	2	1
	Frequency	frequency	Frequency	frequency	Frequency
Specialized tasks appointment	18	9	63	18	9
Job skills	45	45	9	9	-
Accurate job adjustment	54	45	9	9	-
Autonomy and responsibility	54	45	9	9	-
Additional delegation of authority and responsibility	27	54	27	9	-
Employee training (courses, seminars, lectures, etc.)	63	36	18	-	-
Corporate culture and employee philosophy compatibility	63	36	18	-	-
Employee self-satisfaction increase	72	36	-	-	-
Open the employer and employee communications	36	72	-	-	-
Additional incentives (health insurance, travel insurance, pension, etc.)	54	36	18	-	9
Bonuses	54	36	18	-	9
Thanksgiving and praise orally and writing	54	36	18	-	9
Flexible working time	63	36	-	-	-
Promotion	63	36	-	-	-
Continuous assessment of staff	63	36	-	-	-
The link between pay and performance	63	36	-	-	-

Source: developed by author

The results showed that the vast majority of respondents work treat it as a source of income and the opportunity to realize their abilities and experience.

## Conclusions

Employee motivation is realized depending on the organization and the needs of employees and the necessity, influenced by the environment. This requires the environmental and organizational needs analysis and, especially important to find out the individual needs of employees because in order to motivate people to be aware of their properties, which in turn leads to their needs. The material motivation tools include wages, in addition to salary, bonuses, gifts, purchase of tickets to the sports club, theatre, concerts, the car discounts when buying organization products, insurance, office phone, festive gifts and so on.

The results showed that respondents are most appreciated by the physiological needs, the second - the security requirements of the third place - the respect and esteem needs, the fourth - the needs of self-expression, in fifth place -social needs. In terms of importance of motivating factors, focusing on respondents gave wages and social security, vacation time.

Most respondents of the work to use their abilities, a good salary, the opportunity to enhance their professional - level qualification. At least the respondents used the opportunity to be independent and creative.

Most respondents the monetary reward, a salary bonus , fixed bonuses for a job well done , insurance against accidents at work, the working phone and the various benefits. Fewer respondents' enhancements for the achievement of collective results, purchase of tickets to the sports club, theatre, concerts and so on. Respondents are strongly influenced by employee training (courses, seminars, lectures, etc.). Company culture and employee philosophy, you increase employee satisfaction compatibility, flexible working time, promotion, ongoing staff evaluation, the relationship between pay and performance.

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