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Editorial Office: Assoc. prof. Jurgita Martinkienė

Scientific Research Department

Public Institution Lithuania Business University of Applied Sciences

Turgaus st. 21, LT-91429

Klaipeda, Lithuania

Phone +370 46 311 099

Fax +370 46 314 320

E-mail: jurgita.martinkiene@ltvk.lt

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Mokslo-taikomųjų tyrimų skyrius
Viešoji įstaiga Lietuvos verslo kolegija
Turgaus g. 21, LT-91429
Klaipėda

Telefonas +370 46 311 311099
Faksas +370 46 314 320
Elektroninis paštas: jurgita.martinkiene@lrvk.lt

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EDITORIAL

“Journal of Management“ published by the Lithuanian Business University of Applied Sciences is a peer-reviewed journal that provides an international forum for researchers of Social Sciences, Economics and Management. The Journal is published since 2002, and is operated by an internationally oriented editorial board leading by Prof. Valentinas Navickas, Kaunas University of Technology. It has been positively evaluated by foreign scientists and the number of international scholars publication is constantly increasing.

Articles in the Journal can only be published in English. The editors invite manuscripts that enhance the reputation of journal, with their original contributions to the current body of academic knowledge. Only those articles are accepted for publication, which meet the strict requirements set by the Editorial Board.

The present issue in hand is the 3rd. This issue has been prepared jointly by Lithuania Business University of Applied Sciences and Szent István University (Hungary). Authors of these articles represent various Lithuanian and foreign countries scientists, members of different educational and business institutions, such as Opole University (Poland), University of Prishtina (Kosovo), University of Tirana (Albania), University of Ss. Cyril and Methodius (Slovak Republic), Metropolitan University Prague (Czech Republic), Lithuania Maritime Academy, Lithuania Business University of Applied Sciences, Kaunas University of Technology, Klaipeda State University of Applied Sciences, Strategic Self-Management Institute (Lithuania), Vilnius University, Szent István University (Hungary) and other institutions.

Papers in the Management field cover several sectors of economic sciences. A. Krawczyk-Sołtys investigates three models of healthcare managerial competencies – Competency Task Force Model, Competency Directory Model, NCHL Competency Model –. In the authors opinion, managerial competencies distinguished in these models can significantly shape healthcare organizations competences. D. Katekhaye and R. Magda analyse the challenges and opportunities in rural areas in India and Europe that entrepreneurs might face in the current situation. J. Martinkienė and A. Giedraitis discuss the system of the service quality assurance in a transport company and analyses the system of the service quality assurance, which is based on the interaction between the provider of the service and the consumer. L. Veliu et al. investigate the effect of different leadership styles on employee performance in Kosovo based on the data collected from medium- and large-sized enterprises through structured questionnaires. L. Kovalevskiene et al. analyse the cruise tourism situation in the Baltic Sea based on the statistical data on cruise passengers in the region as well as on interview data of agencies organising cruising services. M. Zsarnoczky examines, how does Artificial Intelligence affect the Tourism Industry. S. Lileikis provides an anthropological interpretation of the seashore in order to develop the natural professional vocation of a future skilled seaport worker.

The Journal also presents the results of international research cooperation such a paper prepared by team of Slovak scientists M. Hosťovecký and I. Dirgová and their Czech colleague Zuzana Horváthová, in which the authors assess the quality of Bachelor's degree programme in Applied Informatics based on the questionnaire data obtained from students.

E. Bruder from Hungary and H. Ünal, a Turkish researcher did a comparative analysis on the causes of deprivation in urban and rural areas. They selected some Central-European countries, but their results are shown for Lithuania too. Their study uses the 2013 wave of EU-SILC database provided by the European Commission.

The 4th industrial revolution is coming, the using of ITC is increasing.

É. Görgényi-Hegyés et al. investigate some aspects of digitalisation and sustainability in the European Union.

Based on the empirical study of sales management of Zeelandia UAB S. Malininas et al. recommend to integrate e-commerce into the goods ordering process and install one business management software integrating all departments of the company.

It is worth mentioning the article of S. Paulauskas, where the author thoroughly describe how the Virtualics formalised development modelling theory could be useful in recognition, positioning and sustaining of nowadays scientific, political, economic, and other challenges.

However, Editorial cannot review all of the researches, therefore we encourage familiarizing with them in the Journal, which currently is under the indexing process with Scopus.

Finally let us express our appreciation and warmest thanks to all of authors, editors, reviewers for their contribution.

The Editorial board invite scientists form different part of the world to share their research ideas and result by actively publishing in the Journal of Management.

Prof. Dr. Maria Fekete Farkas and Assoc. prof. Sergey Vinogradov
members of Editorial Board, Szent István University (Hungary)



FROM HEALTHCARE MANAGER'S COMPETENCIES TO HEALTHCARE ORGANIZATION'S COMPETENCES

Agnieszka Krawczyk-Soltys
Opole University

Annotation

Competency identification systems need to identify both – personal (mostly managerial/leadership) competencies and organizational competences. This article is focused on identification the common competencies of healthcare managers significantly shaping core competences of such organizations. There are many models of healthcare managerial competencies – three of them are presented in this article. First is Competency Task Force (The Healthcare Leadership Alliance approach), second – Competency Directory Model (The Global Consortium for Healthcare Management Professionalization approach) and third - NCHL Competency Model (created by The National Center for Healthcare Leadership). In author's opinion managerial competencies distinguished in these models can significantly shape healthcare organizations competences. There are no universal rules about evaluation criteria for identifying core competences in health organizations because each subject has its own characteristic. Even so building core competences in healthcare organizations can be understood as: creating and supporting an organizational culture that emphasizes continuous learning, providing effective skill development programs with regular updating to include the latest technology and producing incentives for continuous skill development and for acceptance of change. Focusing on core competences, an healthcare organization views today's output supposed to be concerned with recruiting, developing, deploying and organizing around skills, capabilities and competences. The healthcare leadership's role is three-fold: first – developing the organization's strategic architecture or overall planning for building the eligible competences, second – allocating talent to various use or applications, and third – leveraging competences by stretching them across multiple medical services applications. The latter may be achieved through decision-making about competency accumulation, concentration, combination, conservation, reuse and recovery. The turbulent and changing nature of the environment suggests that healthcare organizations competences cannot remain static. They must be continually evolving and developing. Therefore, healthcare organizations have to continue to invest in and upgrade their competences to create new strategic growth alternatives which requires technological and skill accumulation over time (i.e., organizational learning). Healthcare organizations with core competences are able to partially shape the environments (i.e. creating new opportunities) in which they operate and compete and that's why they are better able to achieve desired outcomes.

KEY WORDS: Healthcare Managers Competencies; Healthcare Organizations Competences.

Introduction

The developments in recent years have shifted the research towards a tendency of regarding, inspecting and managing public organizations (also healthcare) as if they are business units. Therefore, these organizations must be considered with new dynamic and management approaches and attitudes have to be directed with new researches. Any kind of support have to be provided to create and ensure the sustainability of public organizations which are responsible against stakeholders, which compete and obtain a successful organizational structure and competences (Besler and Sezerel 2011). An environment of escalated public demand raises the question about core competences of healthcare organizations. For this purpose, whether core competences would constitute an important place in the success of healthcare organizations is an important research area.

Nowadays healthcare managers must have talent sophisticated enough to match the increased complexity of the healthcare environment. They are expected to demonstrate measurable effects and effectiveness and practice evidence-based management (EBM). The shift to EMB has led to effort defining leadership competencies significantly shaping healthcare organizations competences, and then core competences.

Competency identification systems need to identify both – personal (mostly managerial/leadership) competencies and organizational competences (Boam and Sparrow 1992). This article is focused on identification the common competencies of healthcare managers significantly shaping core competences of such organizations.

Managerial competencies – The Healthcare Leadership Alliance (HLA) approach

The Healthcare Leadership Alliance (HLA) is a consortium of major professional associations in the healthcare field which together represents more than 100 000 managers (Stefl 2008):

- American College of Healthcare Executives (ACHE),
- American College of Physician Executives (ACPE),
- American Organization of Nurse Executives (AONE),
- Healthcare Financial Management Association (HFMA),
- Healthcare Information and Management Systems Society (HIMSS),
- Medical Group Management Association (MGMA) and its educational affiliate – American

College of Medical Practice Executives (ACMPE).

In 2002 HLA summoned the Competency Task Force to determine management competencies and settle how these competencies could be used to advance the field.

The Task Force understand competences as transcendent unique organizational settings and applicable across the environment (Ross, Wenzel and Mitlyng 2002). It was identified five competency domains (Stefl 2003):

1. Communication and Relationship Management – capability to communicate with internal and external customers to build and maintain relations and interactions,;
2. Leadership – capability to inspire excellence (individual and organizational), to create and attain a shared vision, and to successfully manage change to attain the hospital's strategic ends;
3. Professionalism – aligning personal and organizational conduct with standards including responsibility to the patient, a service orientation, and a commitment to learning and improvement;
4. Knowledge of the Healthcare Environment – understanding of the healthcare system and the environment;
5. Business Skills and Knowledge – capability to apply business principles including systems thinking, to the healthcare environment.

Managerial competencies – The Global Consortium for Healthcare Management Professionalization approach

The Global Consortium for Healthcare Management Professionalization created Competency Directory Model which was derived from HLA summoned the Competency Task Force. This Consortium is set up by The International Hospital Federation, and included organizations as follows:

- Australasian College of Health Service Management,
- Canadian College of Health Leaders,
- European Association of Hospital Managers,
- Federacao Brasileira de Administradores Hospitalares,
- Federacion Andina y Amazonica de Hospitales,
- Federacion Latinoamericana de Hospitales,
- Health Management Institute of Ireland,
- Hong Kong College of Healthcare Executives,
- International Health Services Group,
- International Hospital Federation,
- Jamaican Association of Health Services,
- Management Sciences for Health,
- Pan American Health Organization,
- Sociedad Chilena de Administradores en Atención Médica y Hospitalaria,
- Taiwan College of Healthcare Managers,
- Tropical Health and Education Trust – Partnership for Global Health,
- University of the West Indies.

The aim of the Consortium is professionalizing the leadership and management of health systems to improve

patient care globally. In the Competency Directory (International Hospital Federation 2015), the competencies are categorized into five critical domains:

- Leadership
- Communication and Relationship Management
- Professional and Social Responsibility
- Health and the Healthcare Environment
- Business

Healthcare managers should reveal competence in all five domain areas. Among Leadership Competencies the Consortium distinguished:

- Leadership Skills and Behavior – communicating the mission, objectives and priorities of the organization to internal and external entities, incorporating management techniques and theories into leadership activities, analyzing problems, promoting solutions and encouraging decision making;
- Engaging Culture and Environment – creating an organizational climate built on mutual trust, transparency and a focus on service improvement that encourages teamwork and supports diversity, encouraging a high level of commitment from employees by establishing and communicating a compelling organizational vision and goals, holding self and others accountable to surpass organizational goals;
- Leading Change – promoting ongoing learning and improvement in the organization, responding to the need for change and lead the change process;
- Driving Innovation – encouraging diversity of thought to support innovation, creativity and improvement.

Communication and Relationship Management Competencies include:

- Relationship Management – demonstrating effective interpersonal relationships, developing and maintaining positive stakeholder relationships, practicing and valuing transparent shared decision making and understanding its impacts on stakeholders (internal and external);
- Communication Skills and Engagement – exercising cultural sensitivity in internal and external communication, demonstrating communication skills, presenting results of data analysis in a way that is factual, credible and understandable to the decision makers, preparing and delivering business communications such as meeting agendas, presentations, business reports and project communication plans, understanding the function of media and public relations;
- Facilitation and Negotiation – managing conflict through mediation, negotiation and other dispute resolution techniques, demonstrating problem solving and problem-solving skills, building and participating in effective multidisciplinary teams.

The composition of Professional and Social Responsibility Competencies is:

- Personal and Professional Accountability – participating in healthcare policy initiatives, advocating for rights and responsibilities of

patients and their families, revealing an ability to understand and manage conflict-of-interest situations as defined by organizational by-laws, policies and procedures, practicing due diligence in carrying out fiduciary responsibilities, promoting quality, safety of care and social commitment, in the delivery of health services;

- Professional Development and Lifelong Learning – revealing commitment to self-development including continuing education, networking, reflection and personal improvement;
- Contributions to the Profession – contributing to advancing the profession of healthcare management by sharing knowledge and experience, evolving others by mentoring, advising, coaching and serving as a role model, supporting and mentoring high-potential talent within both one's organization and the profession of healthcare management
- Self-Awareness – being aware of one's own assumptions, values, strengths and limitations, revealing reflective leadership by using self-assessment and feedback from others in decision making;
- Ethical Conduct and Social Consciousness – demonstrating high ethical conduct, a commitment to transparency and accountability for one's actions, using the established ethical structures to resolve ethical issues, maintaining a balance between personal and professional accountability, recognizing that the central focus is the needs of the patient/community.

Among Health and the Healthcare Environment Competencies one can distinguish:

- Health Systems and Organizations – evincing an understanding of system structure, funding mechanisms and how healthcare services are organized, balancing the interrelationships among access, quality, safety, cost, resource allocation, accountability, care setting, community need and professional roles, assessing the performance of the organization as part of the health system/healthcare services, using monitoring systems to ensure legal, ethical, and quality/safety standards are met in clinical, corporate and administrative functions, promoting the establishment of alliances and consolidation of networks to expand social and community participation in health networks, both nationally and globally;
- Health Workforce – demonstrating the ability to optimize the healthcare workforce around local critical workforce issues, such as shortages, scope of practice, skill mix, licensing;
- Person-Centered Health – effectively recognizing and promoting patients and their family's perspectives in the delivery of care and including the perspective of individuals, families and the community as partners in healthcare decision making processes, respecting cultural differences and expectations;

- Public Health – establishing goals and objectives for improving health outcomes that incorporate an understanding of the social determinants of health and of the socioeconomic environment in which the organization functions, managing risks, threats, and damage to health during disasters and/or emergency situations, recognizing the local implications of global health events to understand global interconnectivity and its impact on population health conditions.

The fifth critical domain identified by Global Consortium for Healthcare Management Professionalization is Business Competencies in which can be included:

- General Management – demonstrating knowledge of basic business practices, collating relevant data and information, and analyze and evaluate this information to support or make an effective decision or recommendation;
- Laws and Regulations - abiding by laws and regulations applicable to the work of the organization;
- Financial Management – effectively using key accounting principles and financial management tools, such as financial plans and measures of performance (e.g., performance indicators), planning, organizing, executing and monitoring the resources of the organization to ensure optimal health outcomes and effective quality and cost controls;
- Human Resource Management – providing leadership in defining staff roles and responsibilities, developing appropriate job classification/grading systems and workforce planning, effectively managing human resource processes;
- Organizational Dynamics and Governance – demonstrating knowledge of governmental, regulatory, professional and accreditation agencies and the role of leadership within governance structure, applying knowledge of organizational systems theories and behaviors, interpreting public policy, legislative and advocacy processes within the organization, managing within the governance structure of the organization, creating and maintaining a system of governance that ensures appropriate oversight of the organization;
- Strategic Planning and Marketing – leading the development of key planning documents, including strategic plans, business service plans and business cases for new services, planning for business continuity in the face of potential disasters that could disrupt service delivery, developing and monitoring operating-unit strategic objectives that are aligned with the mission and strategic objectives, applying marketing principles and tools to develop appropriate marketing to the needs of the community, evaluating whether a proposed action aligns with the organizational business/strategic plan;

- Information Management – using data sets to assess performance, establish targets, monitor indicators and trends, and determine if deliverables are met, ensuring that applicable privacy and security requirements are upheld, providing optimal use of information and trend analysis within the organization through the use of business intelligence, information management, clinical, and business systems, promoting the effective management, analysis and communication of health information;
 - Risk Management – effectively using risk management principles and programs;
 - Quality Improvement – developing and implementing quality assurance, satisfaction, and patient safety programs according to national initiatives on quality and patient safety, developing and tracking indicators to measure quality outcomes, satisfaction and patient safety, and plan continuous improvement;
 - Systems Thinking - understanding of the interdependency, integration, and competition among healthcare sectors, connecting the interrelationships among access, quality, cost, resource allocation, accountability and community need;
 - Supply Chain Management – effectively managing the supply chain to achieve timelines and efficiency of inputs, materials, warehousing, and distribution so that supplies reach the end user in a cost-effective manner.
- Information Seeking: Underlying curiosity and desire for knowledge;
 - Innovative Thinking: Applying complex concepts, developing creative solutions, or adapting previous solutions in new ways for breakthrough hitherto thinking;
 - Strategic Orientation: Drawing implications and conclusions in light of interdisciplinary view, and using this insights to develop an evolving vision for the organization.
2. Execution – translating vision and strategy into optimal organizational performance; include:
 - Accountability: Holding people accountable to standards of performance or ensure compliance appropriately and effectively;
 - Change Leadership: Energizing stakeholders and sustain their commitment to changes in approaches, processes, and strategies;
 - Collaboration: Working cooperatively;
 - Communication: Speaking and writing in clear, and logical manner in formal and informal situations;
 - Impact and Influence: Persuading and convincing individuals and groups to support a point of view, or recommendation;
 - Information Technology Management: Seeing the potential in and understanding the use of administrative and clinical information technology and decision-support tools in process and performance improvement;
 - Initiative: Anticipating obstacles, developments, and problems by looking ahead;
 - Organizational Awareness: Understanding and learning the formal and informal decision-making structures and power relationship in an organization or sector, identifying real decision makers and those who can influence them;
 - Performance Measurement: Understanding and using statistical and financial methods and metrics to set goals and measure clinical as well as organizational performance; commitment to and employment of evidence-based techniques;
 - Process Management and Organizational Design: Analyzing and designing or improving an organizational process, including incorporating the principles of quality management as well as patient satisfaction;
 - Project Management: Planning, executing, and overseeing a multi-year, large-scale project involving significant resources, scope, and impact.

Managerial competencies – The National Center for Healthcare Leadership (NCHL) approach

The National Center for Healthcare Leadership (NCHL) Competency Model was created through research by the Hay Group with practicing health leaders. This model incorporates benchmark data from other health sectors and insurance companies, and composite leadership competencies. The NCHL Competency Model contains three domains with 26 competencies (National Center for Healthcare Leadership (NCHL) 2005):

1. Transformation – visioning, energizing, and stimulating a change process that connect communities, patients, and professionals; include:
 - Achievement Orientation: A concern for unmatched a standard of excellence (e.g. striving for improvement, results orientation, competitiveness, innovation);
 - Analytical Thinking: Understanding issue (problem) by breaking it into small parts or tracing its implications in a step-by-step way, organizing them systematically, making systematic comparisons of different aspects, setting priorities on a rational basis, and identifying time sequences and relationships;
 - Community Orientation: Aligning individual and organizational priorities with the needs and values of the community;
 - Financial Skills: Understanding and explaining financial and accounting information;
3. People – creating an organizational climate that values personnel, leader’s responsibility, own and others capabilities; include:
 - Human Resource Management: Implementing staff development and other management practices that represent contemporary best practices, complying with legal and regulatory requirements, and optimizing the performance of the workforce, including performance assessments, alternative compensation and benefit methods, and the alignment of human

resource practices and processes to meet the strategic goals of the organization;

- Interpersonal Understanding: Accurately hearing and understanding the unspoken or partly expressed thoughts, feelings, and concerns of others;
- Professionalism: Demonstrating of ethics and professional practices, as well as stimulating social accountability and community stewardship;
- Relationship Building: Establishing, building, and sustaining professional contacts for the purpose of building networks of people with similar goals and that support similar interests;
- Self-Confidence: Believing and conviction in one's own ability, success, and decisions or opinions when executing plans and addressing challenges;
- Self-Development: Seeing an accurate view of one's own strengths and development needs, including one's impact on others, a willingness to address needs through reflective, self-directed learning and trying new leadership approaches;
- Talent Development: Building of the organization's human capability, including supporting top-performing people and taking a personal interest in coaching and mentoring high-potential leaders;
- Team Leadership: seeing oneself as a leader, from forming a top team that possesses balanced capabilities to setting the mission, values, and norms, as well as holding the team members accountable individually and as a group for results.

Healthcare organizations core competences

The term "competency" was first used in management sciences to identify the characteristics which distinguish superior from average managerial performance (Boyatzis 1982). "Competency" (plural "competencies") described an underlying characteristic of an individual that is casually related to effective or superior performance in a job. The research gathered that there is a range of factors, not single factor, that differentiated superior from average managers.

The term "competence" (plural "competences") refers to the set of resources held by the organization, related to the performance of activities leading to achieving goals, by the development of adequate capabilities to perform tasks (Guallino, Prevot 2008).

Both of this terms are derived from the Latin word "*competere*" which means "due", "suitable", "appropriate" (Nordhaug, and Grønhaug 1994).

Competence can be understood as the ability to apply assets in a coordinated way (interaction and integration of capabilities) in order to achieve the key goal. Skills and capabilities are the basic of competences but capabilities and skills don't always lead to a competence by definition. This is only possible by interaction and integration between them. Thus, competence is related to processes and interaction between the assets in an organization and lies generally embedded in cornerstone

organizational units (Gimzauskiene and Staliuniene 2010). Competences of healthcare organizations may be derived from different kinds of knowledge. Some of them depend on "know-how" – practical forms of knowledge gained through incremental improvements to medical services and processes, another – on "know-why" – theoretical forms of understanding that enable the creation of new kinds of services and processes. Other healthcare organizations competences seems to come from different kinds of knowledge identified by Organization for Economic Co-operation and Development (OECD) (Krawczyk-Sołtys 2013): "know-what" (operational knowledge), "know-who" (kind of meta-knowledge), "know-when", "know-which", "know-between" (interactions between resources, skills and capabilities), "know-where", "know-whether" and "know-if". To sum up: different healthcare organizations competences arise from various levels of activity: some derive largely from the capabilities of this entities to create and provide specific kinds of medical services, another seems to come from the abilities to organize and coordinate resources in innovative and effective ways, others mostly depend on managers ability to set up new strategies for creating organizational value.

There are four central points that determine the degree of strategic management competence in healthcare organizations (Hinterhuber, Friedrich, Handlbauer, and Stuhec 1996):

1. Recognizing potential – core competences are not necessarily visible. They constitute highly complex, intangible and diffuse entities;
2. Exploiting potential – right use and optimal exploitation of the organization's resources and competences are of central importance;
3. Developing potential – new core competences have to be developed and achieved. The question of the development of core competences leads to the question of organizational learning (Helleloid, and Simonin 1994);
4. Keeping potential – preserving core competences, preventing unwanted and uncontrolled outflow or others' access to own competences.

The real sources of advantage are to be found in management's ability to consolidate corporate wide technologies and production skills into competences that empower individual business to adapt quickly to hanging opportunities. Prahalad and Hamel define the core competence concept as a collective learning which enables the integration the integration of highly diversified types of technology with the different production skills at an enterprise (Prahalad and Hamel 1990). Core competence is the combination of the enterprises' valuable, difficult to imitate resources and competences which don't have any replaceable strategic alternatives (Barney 1995) and foundation on which the enterprises base their long-term strategies (Grant 1996). They can be also understood as unique series of resources which encompass the skills and competences that the enterprises have for ensuring strategic flexibility and obtaining competitive superiority (Hitt, Keats and DeMarie 1998).

In the resource-based view competences need not simply accrue to organizations (Hagan 1996). Rather they

can be consciously and systematically developed by the purposeful choices and actions of an organization's leadership (Barney 1991; Conner 1991; Wernerfelt 1984). Lado, Boyd, and Wright proposed conceptualization of sustainable competitive advantage from a resource-based perspective (Lado, Boyd, and Wright 1992), a systems model that integrally links four components of an organization's "distinctive competences" (managerial competencies and strategic focus, resource-based, transformation-based, and output-based competences).

There are several criteria for defining core competences (Clardy 2008). First, the *sine qua non condition* of core competences is persistent, superior organizational performance. They are based on routines and processes. Core competences are properties of a system and are not generally reducible to or defined by statements of individual task proficiencies. To create their superior effects, core competences are organizationally asymmetric. Core competences cannot, by definition, be common, generic, or universal, because if they are shared, then any organizations can use them to achieve competitive advantage.

Following Hamel and Prahalad theory core competence must have three features (Prahalad and Hamel 1990): should provide potential access to a wide variety of markets, has to make a significant contribution to the perceived customer benefits of the end product/service, and should be difficult to imitate. However Authors also underlined that these tests were just minimum thresholds. Core competences should also possess a high degree of durability (Hafeez, Zhang, and Malak 2002) and be strategically flexible (Winkelmanns 1997).

Hence, building core competences in healthcare organizations can be understood as (Hitt, Keats and DeMarie 1998):

- Creating and supporting an organizational culture that emphasizes continuous learning;
- Providing effective skill development programs with regular updating to include the latest technology;
- Producing incentives for continuous skill development and for acceptance of change.

To sum up: there are no universal rules about evaluation criteria for identifying core competences in health organizations because each subject has its own characteristic. There are also many criteria and cross-sections of the organization's competencies classification (Bratnicki 2000; Oleksyn 2010; Matwiejczuk 2014). Core competences can be understood as "crown jewels" (Hafeez, Zhang, and Malak 2002) of such organizations, which should be carefully nurtured and developed.

Conclusions

In turbulent and often chaotic environments, healthcare organizations need to develop and nurture a unique set of resources. These sets are built into skills and capabilities, often referred to as core competences. The turbulent and changing nature of the environment suggests that these core competences cannot remain static. They must be continually evolving and developing. Therefore, healthcare organizations have to continue to

invest in and upgrade their core competences to create new strategic growth alternatives which requires technological and skill accumulation over time (i.e., organizational learning). Healthcare organizations with core competences are able to partially shape the environments (i.e. creating new opportunities) in which they operate and compete and that's why they are better able to achieve desired outcomes.

The significant role of researches and development for core competence building in literature is pointed (Ahuja 2011). Focusing on core competences, an healthcare organization views today's output supposed to be concerned with recruiting, developing, deploying and organizing around skills, capabilities and competences. The healthcare leadership's role is three-fold: first – developing the organization's strategic architecture or overall planning for building the eligible competences, second – allocating talent to various use or applications, and third – leveraging competences by stretching them across multiple medical services applications. The latter may be achieved through decision-making about competency accumulation, concentration, combination, conservation, reuse and recovery. By defining an organization as a bundle of competences (Hagan 1996), the healthcare organization becomes blurred, enabling an innovative organization to seek "white space" opportunities between existing competency applications.

Core competences in healthcare organizations are both the starting point and the result of collective learning processes. The managers responsible for core competences must endeavor to continuously "produce" new knowledge within the organization or gain it from outside. This knowledge has to be grouped together and translated into core competences (Hinterhuber, Friedrich, Handlbauer, and Stuehec 1996).

The aim of future, in-depth research is to identify specific, meaningful leadership competencies which are significantly related to healthcare organizations competences. There are two ways to achieve this: top-down approach (considering organizational competences as independent variables and leadership competencies as dependent variables) and bottom-up approach (considering leadership competencies as independent variables and organizational competences as dependent variables) (Peteraf 1993; Yang, Wu, Shu, and Yang 2006). Both this approaches provide that leadership competencies remain related to organizational competences. The next step in the research is to determine which competences of healthcare organizations are core. Hence this article will give some implications to future research.

References

- Ahuja, I.P.S. (2011). Managing Research and Development for Core Competence Building in an Organization. *Journal of Technology Management & Innovation*, 6(1), 58-65.
- Barney, J.B. (1991). Firm Resources and Sustained Competitive Advantage, *Journal of Management*. 1, 99-120.
- Barney, J.B. (1995). Looking inside for competitive advantage. *Academy of Management Executive*, 9(4), 49-61.

- Besler, S., and Sezerel, H. (2011). Core Competences in Non-Governmental Organizations: A Case Study. *Procedia Social and Behavioral Sciences*, 24, 1257-1273.
- Boam, R., and Sparrow, P.R. (eds.). (1992). *Designing and Achieving Competency. A Competency Based Approach to Developing People and Organizations*. McGraw-Hill, London.
- Boyatzis, R.E. (1982). *The Competent Manager – A Model for Effective Performance*. Wiley, New York.
- Bratnicki, M. (2000). *Kompetencje przedsiębiorstwa. Od określenia kompetencji do zbudowania strategii*. Placet, Warszawa.
- Clardy, A. (2008). Human Resource Development and the Resource-Based Model of Core Competencies: Methods for Diagnosis and Assessment. *Human Resource Development Review*, 7(4), 387-407.
- Gimzauskienė, E., and Staliuniene, J.D. (2010). Model of Core Competence Ranking in Audit Business. *Engineering Economics*, 21(2), 128-135.
- Grant, R.M. (1996). Prospering in Dynamically-Competitive Environments: Organizational Capability as Knowledge Integration. *Organization Science*, 7(4), 375-387.
- Gullino, G., Prevot F. (2008). Competence-Building through Organizational Recognition or Frequency of Use: Case Study of the Lafarge Group's Development of Competence in Managing Post-Merger Cultural Integration. In Martens, R., Heene, A., and Sanchez, R. (eds.) *Competence Building and Leveraging in Interorganizational Relations*, 65-69. Elsevier Ltd., Oxford.
- Hafeez, K., Zhang, Y.B., and Malak, N. (2002). Core competence for sustainable competitive advantage: A structured methodology for identifying core competence. *IEEE Transactions on Engineering Management*, 49(1), 28-35.
- Hagan, C.M. (1996). The Core Competence Organization: Implications for Human Resource Practices. *Human Resource Management Review*, 6(2), 147-164.
- Helleloid, D., and Simonin, B. (1994). Organizational Learning and a Firm's Core Competence. In Hinterhuber H.H. (ed.) *Competence-based Competition*, 263-283. Wiley, Chichester.
- Hinterhuber, H.H., Friedrich, S.A., Handlbauer, G., and Stuehec U. (1996). The company as a cognitive system of core competences and strategic business units. *Strategic Change*, 5, 223-238.
- Hitt, M.A., Keats, B.W., and DeMarie, S.M. (1998). Navigating in the new competitive landscape: Building strategic flexibility and competitive advantage in the 21st century. *Academy of Management Executive*, 12(4), 22-42.
- International Hospital Federation. (2015). *Leadership Competencies for Healthcare Services Managers*. [revised 2017 04 29], www.ihf-fih.org
- Krawczyk-Sołtys, A. (2013). *Zarządzanie wiedzą w szpitalach publicznych. Identyfikacja poziomu i kierunki doskonalenia*. Wydawnictwo Uniwersytetu Opolskiego, Opole.
- Lado, A.A., Boyd, N.G., and Wright P. (1992). A Competency-Based Model of Sustainable Competitive Advantage. *Journal of Management*, 18(1), 77-91
- National Center for Healthcare Leadership (NCHL). (2005). *Healthcare Leadership Competency Model, Summary*. [revised 2017 04 29], www.nchl.org
- Nordhaug, O., and Grønhaug K. (1994). Competences as Resources in Firms. *The International Journal of Human Resource Management*, 5(1), 89-106.
- Matwiejczuk, R. (2014). *Kompetencje logistyki w tworzeniu przewagi konkurencyjnej przedsiębiorstwa*. Wydawnictwo Uniwersytetu Opolskiego, Opole.
- Oleksyn, T. (2010). *Zarządzanie kompetencjami. Teoria i praktyka*. Oficyna a Wolters Kluwer, Warszawa.
- Peteraf, M.A. (1993). The Cornerstone of the Competitive Advantage: A Resource-Based View. *Strategic Management Journal*, 14(3), 179-191.
- Prahalad, C.K., Hamel G. (1990). The Core Competences of the Corporation, *Harvard Business Review*, May-June, 79-91.
- Ross, A. Wenzel, F.J., and Mitlyng J.W. (2002). *Leadership for the Future: Core Competencies in Healthcare*. HAP, Chicago.
- Stefl, M.E. (2003). *Report of the Competency Task Force: Healthcare Leadership Alliance*. HLA, Chicago.
- Stefl, M.E. (2008). Common Competencies for All Healthcare Managers: The Healthcare Leadership Alliance Model. *Journal Of Healthcare Management*, 53(6), 360-374.
- Wernelfelt, B. (1984), A Resource-based View of the Firm, *Strategic Management Journal*. 5(2), 171-180.
- Winkelmans, W. (1997). Strategic seaport planning in search for better use of core competences and competitive advantages. *Ports & Harbors*, 47(3), 17-21.
- Yang, B.C., Wu, B.E., Shu, P.G., and Yang M.H. (2006). On establishing the core competency identifying model: A value-activity and process oriented approach. *Industrial Management & Data Systems*, 106(1), 60-80.

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Agnieszka Krawczyk-Sołtys, Ph. D., Opole University, Faculty of Economics, Head of Research Center for Management in Health Care. Resource-based view in the management of healthcare organizations, healthcare strategic management. 45-058 Opole, ul. Ozimska 46a, Poland. Phone: +48 77 401 68 74. E-mail: akrawczyk.soltys@uni.opole.pl



WHAT DOES YOUNG AGE STRUCTURE SUGGEST ABOUT SOCIO-ECONOMIC DEVELOPMENT?

Csilla Obadovics¹, Emese Bruder²

¹Hungarian Demographic Research Institute, ²Szent Istvan University, Hungary

Annotation

Socio-economic development and the age structure of a population are often linked together in the public discourse. The development of an area and its age structure are significantly correlated in Europe according to researchers. In this paper we take a look behind this simplifications, providing insights about the link between age structure and the development of the area. Our hypothesis is, that favourable age structure does not necessarily mean a higher socio-economic situation. Henceforward we argue, that migration is one of the most significant indicators of regional socio-economic inequalities. However, the situation needs a deeper understanding. One part of the less favourable areas is characterised by an ageing population and out-migration, but in the other part we can experience the opposite. The statement that in the less developed areas we can only find ageing populations without young inhabitants, while in the developed areas we can find the opposite, is not true in Hungary. The study examines and compares the socio-economic situation in less favourable rural areas of Hungary where the less favoured situation can be found together with an unfavourable age structure and migration process, or its opposite, young age structure and growing population. We found that, however, Hungarian population is ageing (as population of Europe), the highest young population rate can be found in the most underdeveloped and the most developed micro-regions. The most underdeveloped micro-regions with favourable age structure are concentrated in the Eastern parts of Hungary as well as in Southern Transdanubia. In these micro-regions, the percentage of the Roma population, is higher than average. While the phenomena may not refer to causation, it seems that the two are closely related. For understanding regional inequalities, we need to look at numbers more closely. Sometimes it is important to revise the indicators, and it can happen, that the most basic perceptions have to be challenged in order to facilitate effective regional development.

KEY WORDS: ageing, migration; depopulation; socio-economic inequalities.

Introduction

It is generally accepted that in industrial societies the populations of more developed regions have both younger age structures and higher levels of education, while less developed regions or places have older age structures. There is another consensus about internal migration, that regions with positive migration balance have younger age structures and higher levels of socio-economic development (Lichter 1993, Brown 1993, Campbell et al. 1993). According to the public perception (shared by policy makers) rural populations are declining, old and undereducated (Kulcsar et al. 2011).

It is very common that demographic changes in a region are partly causes and partly consequences of its economic and social situation. Many scholars have found significant association between territorial development and age structure in urban and rural context too (Zhang et al. 2015, Bloom et al. 2007, Maestas et al. 2016, Woetzel et al. 2016)

It is generally accepted that limited resources and services in disadvantaged communities and regions increase the old-age dependency ratio (Ingham et al. 2009).

However, the fact can be deduced, that the favourable age structure does not necessarily mean a higher socio-economic development level. We can find favourable age structure in some underdeveloped micro-regions of Hungary. In other areas the good geographical location (close to the city, there are touristic attractions, etc.), can partly compensate the unfavourable age structure and

demographic disadvantage. One part of the underdeveloped area is characterized by an ageing population, but the other part is just the opposite to them. The statement that in the less developed areas we can only find ageing populations without young inhabitants, while in the developed areas it is just the opposite, it is not true in all cases.

This study aims to compare the socio-economic situation in less favoured rural areas where the less favored situation can be found together with an unfavourable age structure and migration processes, or its opposite which means young age structure and growing population.

Our opinion is that the favourable age structure not necessarily runs with social-economic development. Underdeveloped micro-regions with favourable age structure concentrated in some parts of Hungary, where high level of unemployment, low life expectancy and high birth rate (with large roma population also) have observed.

Data and methods

For analysis we are using micro-regional level regional data for the year 2015, and we also make few comparisons with 1998 data. The number of observations were 175 micro-regions. The data was provided by the National Statistical Office of Hungary (the database of National Regional Development and Spatial Information System). Budapest as a micro-region was treated

separately because of its outstanding performance in many aspects.

Based on four input variables we conducted Principal Component Analysis and created a Development Index, with which we aim to measure the socio-economic performance of a micro region. These input indicators were: unemployment rate, cars per 1000 inhabitants, income per inhabitant and migration rate. Migration rate was defined as immigrants per outmigrants (%).

Table 1. Principal Component A matrix

	Development Index
unemployment rate, %	-0,922
cars per 1000 inhabitants	0,889
income per inhabitant	0,848
immigrants per outmigrants, %	0,844

Source: own calculations

Based on the Principal Component A matrix (Table 1), the unemployment rate has a very close negative correlation with the component. The second closest coefficient belongs to the number of cars per inhabitant, with its 0.889 coefficient. The weakest but still very strong relationship is between the migration indicator and the component with 0.844 coefficient.

Based on the Development Index, we created four categories of socio-economic development. The thresholds of the categories were made based +/- 1 standard deviation from the mean of the factor loadings. The four categories with the number of micro regions are as follows:

- Underdeveloped districts (Factor loading up to -1): 37 micro regions
- Moderately underdeveloped districts (Factor loading from -1 up to 0): 49 micro-regions
- Moderately developed district (Factor loading from 0 up to 1): 57 micro regions
- Developed district (Factor loading from 1 and over): 32 micro-regions

In the following section we would like to argue why we selected our four input variables. There is no question in literature why unemployment rate and income per inhabitant are significant measures of social-economic development. Using the cars per inhabitant indicator as a measure of social-economic development is also not new in scientific research. Researchers Bíró and Monlár (2004) as well as Faluvégi (2004) applied this indicator for measuring the well-being and economic development of micro regions in Hungary. They used more input variables in their analysis, but they found that this measure is fitting to the factor model of other development indicators. Cars per inhabitant indicator was also used by Obádovics (2012) and Kulcsár et al. (2011) in micro-regional level.

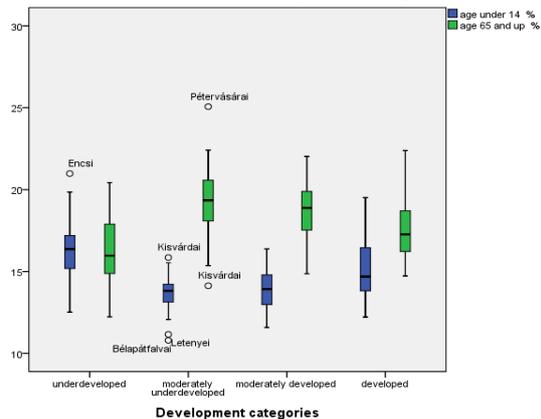
In our opinion, migration is one of the most significant indicators of regional socio-economic disparities. Scholars argue that future migration can be detected/forecasted by analysing the demographic and economical trends within the region (Fassmann - Hintermann 1998, Dustmann et al. 2003, Hárs et al. 2004). In addition, the motivations behind migration

decisions are complex, still decisions are driven not only based on personal reasons and the destination region's magnetic factors, but also the unattractiveness of the issuing region (Gödri, 2016). Based on these facts, we believe that migration indicator should be considered when we would like to see the development process of a region.

In the following paragraph we explain our conceptualised definitions used in this article. In this paper young age rate is defined as the percentage of the population aged 14 years old or younger. Old age rate was calculated as the percentage of population aged 65 or older. For 1998, due to data availability, we used different definition, old age is considered 60 years or older. For better comparability, when we look at the differences in time, we used the same definition for elderly for the 2015 year too (in Table 2 and Table 3).

Results

Figure 1 shows that the highest rate of the population under the age of 14 can be found in the underdeveloped group (16.3%), followed by the developed group with 15.0%. In the moderately developed and moderately



underdeveloped group 13.9% and 13.7% respectively.

Fig. 1. Percentage of population of the micro-regions under 14 years and over 64 years by development categories, 2015

Source: own construction

The highest proportion of the elderly is in the moderately underdeveloped group with 19.3%, followed by the moderately developed group, where the rate is 18.7%. In developed areas, 17.4%, while in underdeveloped areas 16.3% of the population is over 65 years of age.

In the underdeveloped group Encs micro-region stands out with its youth ratio of over 21%. From the moderately undeveloped group, the Pétervására micro-region needs more attention with its outstanding old age rate (25%).

Based on the above mentioned details we can observe, that in every development category, old age rate exceeds young age rate, with one exception, namely in the underdeveloped group. Evidence show, that underdevelopment goes along with young age structures.

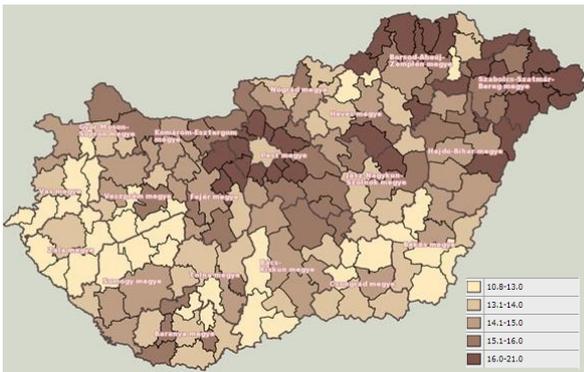


Fig. 2. Percentage of population of the micro-regions under 14 years by development categories, 2015

Source: own construction

If we look at the geographical position of the young districts in Figure 2, we can observe, that the proportion of young people is the highest in the developed areas around Budapest and in the underdeveloped districts of North-East Hungary (darker colour). High proportion of elderly people can be found in the Southern Great Plain region, and in Southern Transdanubia and Balaton lake region (lighter colour). The number of elderly people in most parts of the country exceeds the number of youth, the only exception is the districts around Budapest and the districts with a dominantly large roma population in the North Eastern part of the country.

It is also important to see the volume of the regeneration of the population along different development categories. We argue that birth rate is an important indicator of underdevelopment. In Figure 3 we can observe, that while significant differences between the birth rate of the three more developed groups can not be detected (9 permille), the birth rate of the underdeveloped group is significantly higher with 11 permille. The results of birth rate suggest, that in the underdeveloped regions high young age rate can be considered as a consequence of high fertility.

We also looked at life expectancy at birth, as an other common indicator of the well-being and social, economical situation of a region. We found significant differences in life expectancy along the development categories. The life expectancy of males is significantly increasing with development, while for female the growth is less notable and there is no significant difference between the two most developed groups at all. This suggests that female and male life expectancy does not show the same phenomena in different economic development.

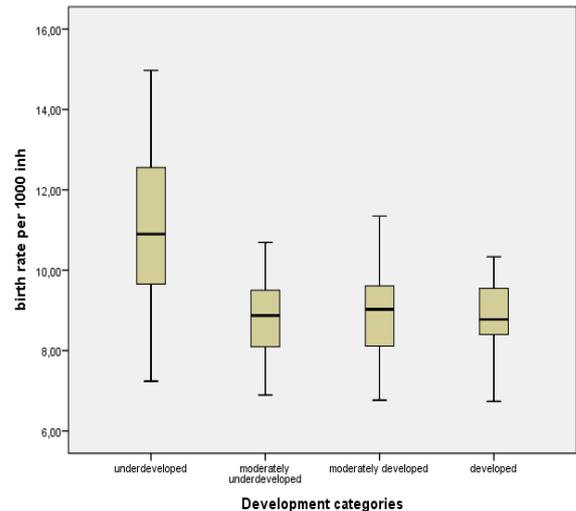


Fig. 3. Birth rate of the micro-regions by development categories, 2015

Source: own construction

However, it should be emphasised that in the underdeveloped group there is a greater difference in the life expectancy of men and women, and the difference between the two gender is decreasing with higher development.

Table 2. Migration balance (in-out/1000 inh.) of the micro-regions aggregated to NUTS2 level by development categories, 2015

REGION	under-developed	moderately under-developed	moderately developed	developed	together 2015	together 1998
Central Hungary (without Budapest)			3,3	11,0	8,1	11,5
Central Transdanubia		-7,5	-0,4	2,6	0,6	1,4
Western Transdanubia		-6,8	-1,3	5,6	3,3	0,7
South Transdanubia	-9,3	-3,8	-1,1		-2,9	-0,6
Northern Hungary	-7,8	-3,9	0,6		-4,1	-2,5
North Plain	-6,8	-6,1	-1,6		-4,6	-1,5
South Plain	-8,9	-4,5	0,0	13,6	-1,6	-0,3
ALL TOGETHER	-7,4	-4,5	-0,1	7,1	-0,3	-5,7
Budapest					1,4	-5,7

Source: own calculations

Table 2 summarises the migration balance of NUTS2 level regions in Hungary. The migration potential of Central Hungary was the highest in 1998 and still is in 2015, although it has fallen by more than 3 percentage points.

The decline, however, only affected the moderately developed districts, the developed regions maintained their position. Over the past 10 years, the migration potential of Budapest has increased substantially, the pre-2000 outmigration wave has reversed, and the return of young people and working people to Budapest has started.

The migration potential of Tisza-kécskei micro-region in the Southern Great Plain region has to be highlighted, with its 133.3% migration rate. In the North Hungary

region the migration potential of Egri (105%) and Rétsági district (122%) were positive.

The migration potential of Central Transdanubia region decreased significantly compared to 1998, and there was a shift towards Western Transdanubian region in terms of migration. In the districts of Pannónhalma, Csorna, Tét, Sopron, Kőszeg, Győr and Kapuvár, the number of immigrants exceeds the number of outmigrants by 10%.

The geographical position of the micro-regions with the highest outmigration rate can be seen in Figure 4. The highest outmigration rate is marked with the lightest colour.

Table 3. Ageing index (65+/15<>) of the micro-regions aggregated to NUTS2 level by development categories, 2015

REGIONS	under-developed	moderately under-developed	moderately developed	developed	together 2015	together 1998
Central Hungary (without Budapest)			155,1	128,7	138,0	99,7
Central Transdanubia		155,2	178,7	176,2	176,3	102,4
Western Transdanubia		232,8	221,2	178,8	191,7	119,5
South Transdanubia	160,6	196,7	194,4		193,5	117,3
Northern Hungary	134,8	179,2	187,6		165,3	109,3
North Plain	130,9	156,2	171,8		150,5	93,9
South Plain	194,8	197,9	189,7	179,8	192,5	120,9
Budapest					204,8	164,0
ALL TOGETHER WITH BUDAPEST	174,5	183,6	182,3	155,7	174,8	115,8

Source: own calculations

The proportion of elderly people increased in Southern Transdanubia, Western Transdanubia and Central Transdanubia regions from 1998 to 2015. The highest growth is detected in Central Transdanubia with 6.6% increase. This region includes the northern part of the Lake Balaton. After Bélapátfalva and Pétervására districts, the most elderly districts in Hungary are the districts of Balatonfüred and Balatonalmádi.

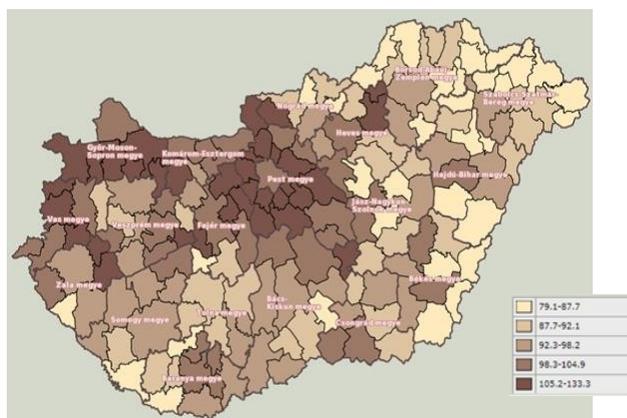


Fig. 4. Migration rate (in/out %) of the micro-regions by development categories, 2015

Source: own construction

In Western Transdanubian region, the proportion of the elderly is outstandingly high in the moderately

developed and moderately underdeveloped areas (Lenti, Keszthelyi, Zalaszentgróti and Letenyei districts). In the underdeveloped districts, the high proportion of elderly people is relatively low. The lowest proportion of the elderly is in the developed districts of the Central Hungary region (Pest county) and in the Northern Great Plain region in the underdeveloped districts of Hajdúhadháza, Kemece, Nyírbátor, Baktalórántháza, Záhony, Mátészalka, Nyíradony and the moderately undeveloped Kisvárda district, and in the underdeveloped Northern Hungary region (Encsi, Szikszói, Mezőcsáti districts).

In Table 3 we can see the ageing index of the micro-regions aggregated to NUTS2 level by development categories. Ageing index was calculated by dividing the old aged population (65 years or older) by the young population (14 years or younger). In 2015, the aging index was over 100% in all regions. The most favourable situation is in the underdeveloped districts of the Northern Great Plain and Northern Hungary (Hajdúhadháza, Encs, Szikszó, Kemece districts) and Pest county (Budakeszi, Szigetszentmiklós, Dunakeszi districts). The 15 most youngest districts belong to the group of underdeveloped districts. The two oldest districts, as we have seen in the case of old age rate, are the Bélapátfalva and the Pétervására districts. With the exception of the two districts, the first 10 most ageing districts can be found in south and southwest of Hungary, in the underdeveloped and moderately underdeveloped

districts of Southern Great Plain, as well as in the moderately developed and moderately underdeveloped districts of Southern Transdanubia. We found extremely high ageing index in Western Transdanubia, in Letenye and Lenti districts.

Conclusions

It is clear that age structure and economic development are related with each other. However, this relation is often interpreted as a link between young age structure and good economic performance. As our research showed, the picture is more complex. In our study we found that the statement that in the less developed areas we can find only ageing populations without young inhabitants, is not true in Hungary. The most underdeveloped micro-regions with favourable age structure are concentrated in the Eastern parts of Hungary as well as in Southern of Transdanubia. In these micro-regions, the percentage of the Roma population is higher than average. While causation is not certain, it seems that the two are closely related, which emerges a need for additional research on this field. The developed regions with high rate of young population have very high positive migration balance concentrated around Budapest. The most ageing regions are the capital city Budapest, Southern Great Plain and Transdanubia. The population of Hungary is ageing (as population of Europe), but we can find high rate of young population in the most underdeveloped, and in the most developed micro-regions too. We also found that in Southern Transdanubia, Northern Hungary and North Great Plain regions there are no developed micro regions at all.

The importance of these results for policy makers is that it highlights the differences in development needs of regions which seem to be similar in some aspects. For understanding regional inequalities, we need to look at numbers more closely. Sometimes it is important to revise the indicators, and it can happen, that the most basic perceptions have to be challenged.

References

- Bíró Péter, Molnár László (2004): A kistérségi szintű relatív fejlettség meghatározása, *Területi Statisztika*, 22 p.
- Bloom, David E.; Canning, David; Fink, Gunther; Finlay, Jocelyn E., (2007): Does age structure forecast economic growth?, *International Journal of Forecasting*, Elsevier, vol. 23(4), 569-585. p.
- Dustmann, Christian; Casanova, Maria; Fertig, Michael; Preston, Ian; Schmidt, Christoph M. (2003): The impact of EU enlargement on migration flows. Home Office Online Report 25/03. Research Development and Statistics Directorate, Home Office, London, UK.
- Faluvégi Albert (2004): A társadalmi-gazdasági jellemzők területi alakulása és várható hatásai az átmenet időszakában, Hungarian Academy of Sciences, Institute of Economics, Discussion Papers, MT–DP. 2004/5, 50 p.
- Fassmann, Heinz – Hintermann, Christiane (1998): Potential East-West Migration, Demographic Structure, Motives and Intentions, *Czech Sociological Review*, 6(1), 9–72 p.
- Gödri Irén (2016): Elvándorlási szándékok – álmok és konkrét tervek között. A migrációs potenciál jellemzői és meghatározó tényezői a 18–40 évesek körében Magyarországon.
- Hárs Ágnes; Simonovits Bori; Sik Endre (2004): Munkaerőpiac és migráció: fenyegetés vagy lehetőség? In Kolosi T. – Tóth István György – Vukovich György (szerk.): Társadalmi Riport 2004. TÁRKI, Budapest, 272–289 p.
- Ingham, Barbara; Andrejs Chirijevskis, Fiona Carmichael (2009): Implications of an increasing old-age dependency ratio: The UK and Latvian experiences compared, *Pensions: An International Journal*, Volume 14, Issue 4, 221–230 p.
- Kulcsár, László - Kulcsár, László J. and Obádovics, Csilla (2011): Who lives in forgotten places? Age structure and socio-economic development in Hungary, *Regional Statistics: journal of the Hungarian Central Statistical Office*, 110-121. p.
- Maestas, Nicole, Kathleen J. Mullen, David Powell (2016): The Effect of Population Aging on Economic Growth, the Labor Force and Productivity, NBER Working Paper No. 22452, 54 p.
- Obádovics Csilla (2012): A népesség területi szintű vizsgálata az előreszámítások és a tényadatok alapján Magyarországon, *Területi Statisztika*, 15:(2) 125-145. p.
- Woetzel, Jonathan; Jaana Remes, Kevin Coles, and Mekala Krishnan (2016): Urban World: Meeting the demographic challenge in cities, McKinsey Global Institute, 48 p.
- Zhang, Haifeng; Zhang, Hongliang; Zhang, Junsen (2015): Demographic age structure and economic development: Evidence from Chinese provinces, *Journal of Comparative Economics*, Volume 43, Issue 1, 170-185 p.
- Lichter, D. T. (1993): Migration, Population Redistribution, and the New Spatial Inequality in The Demography of Rural Life, Brown. D. L. & Field. D. & Zuiches. J. J. (eds.), University Park PA, Northeast Regional Center for Rural Development.
- Brown, D. L. (1993): Comments on Daniel Lichter’s “Migration, Population and the New Spatial Inequality” in *The Demography of Rural Life*, Brown. D. L. & Field. D. & Zuiches. J. J. (eds), University Park PA, Northeast Regional Center for Rural Development.
- Campbell, R. R. & Spencer, J. C. & Ravindra, G. A. (1993): The Reported and Unreported Missouri Ozarks: Adaptive Strategies of the People Left Behind in *Forgotten Places, Uneven Development in Rural America*, Lyson & Falk (eds.), University Press of Kansas.

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Csilla Obadovics, Doctor of Management and Business Administration, senior researcher at the Hungarian Demographic Research Institute of the Hungarian National Statistical Office in Hungary, associate professor at the Faculty of Economics, University of West Hungary, Sopron, Hungary. Lecturer of two doctoral schools, Management and Business Administration PhD School at Szent Istvan University Gödöllő, and István Széchenyi Management and Organisation Sciences Doctoral School at University of West Hungary, Faculty of Economics. E-mail: obadovics@demografia.hu *Spheres of interest*: regional analysis, labour market, econometrics, mathematics.

Emese BRUDER, Doctor of Management and Business Administration, assistant professor at the Faculty of Economics and Social Sciences, Institute of Economics Law and Methodology at Szent Istvan University, Gödöllő, Hungary. Teaching theoretical and practical courses in MSc level in English and in Hungarian language. Is a young researcher with more than 40 scientific publications and research papers. E-mail: bruder.emese@gtk.szie.hu *Spheres of interest*: measuring poverty, well-being, quantitative methods.



DIFFICULTIES AND CHALLENGES FACED BY RURAL ENTREPRENEURS IN INDIA AND EUROPEAN COUNTRIES

Dhanashree Katekhaye, Robert Magda PhD

Szent Istvan University

Annotation

The role of entrepreneurship in employment, economic growth and innovation have been mainly debated and consistently acknowledged, both in literature and in policy making. The current economic crisis has increased attention on entrepreneurship and its essential role in all economies. The aim of this study is to analyse the challenges and opportunities in rural India and Europe that entrepreneurs might face in the current situation. The economic growth of a country mainly depends on the progress of rural areas and the standard of people living in this area. A rural entrepreneur is one of the great vital contributors in the economic development of a country.

Within the situation of the current crisis, at a European level, entrepreneurship development is one of the key solutions for employment creation and sustainable economic growth. Therefore, there have been numerous actions and initiatives to make entrepreneurship as the growth engine of European economy and to put the principle of “think small first” at the core of national and European policies. Nearly 73 % of the total Indian population lives in rural areas where agriculture and agriculture associated activities are the main sources of their living on the contrary, many rural entrepreneurs are facing various problems and challenges due to non-availability of essential amenities in the rural part of developing country like India. The research methods are the analysis of different research articles, reports and policy papers and comparative analysis of statistical data from international databases also researchers implemented a descriptive research design using 130 randomly selected registered entrepreneurs from Maharashtra state, India.

The main findings of this research show the differences in entrepreneurial activity, level and nature of entrepreneurship existing at European level during the crisis, and also point out the strengths and weaknesses of European countries and Data collected from India were analysed using descriptive statistics the data analysis indicated that lack of finance, insufficient infrastructures, lack of managerial skills were major challenges for rural entrepreneurs.

KEY WORDS: rural; entrepreneurship; challenges; India; Europe.

Introduction

“Entrepreneurship is an activity that involves the discovery, evaluation and exploitation of opportunities to introduce new goods and services, ways of organizing, markets process and raw material through organizing efforts that previously had not existed” (Venkataraman 1997). “Entrepreneurship is an important process by which new knowledge is converted into products and services” (Shane and Venkataraman 2000). Entrepreneurship is the procedure where an entrepreneur’s forms a venture by considering the opportunity in the market, accept the risk by the support of effective innovative idea or procedure and gather revenue from the business. Several researchers in the field of entrepreneurship have not come up with single and unanimously acceptable definition for entrepreneurship (Gwija 2014). (Nafukho, Kobia et al. 2010) argue that the reason for not having a universal definition is because entrepreneurship has been studied in many disciplines, which has resulted in the rise of many opinions regarding its meaning.

Entrepreneurship has become a dynamic field of research in the last two decades. Entrepreneurs play an important role in the overall economic development of the country. The growth and development of entrepreneurship facilitate self-employment, result in broader distribution of economic and industrial activities and help in the maximum utilization of locally available

resources. It is fact that the majority of rural entrepreneurs are facing several problems due to lack of basic amenities in rural areas, like lack of education, financial problems, marketing hurdles, management and human resource problems, insufficient technical and conceptual ability etc.

India is a country of villages. About three-fourth of India's population are living in rural areas out of which 75% of the labour force is still earning its livelihood from agriculture and its allied activities. Land being limited is unable to absorb the labour force in agriculture. Therefore, there is a need to develop rural industries to solve rural unemployment and rural migration to cities.

Enterprise and entrepreneurship are the drivers of economic growth in Europe’s rural areas. With the ongoing challenges facing traditional rural sectors, the future success of the rural economy is inextricably linked to the capacity of rural entrepreneurs to innovate, and to identify new business opportunities that create job opportunities and income in rural areas. Considering the European Union (EU), rural regions cover 57% of the territory and 24% of the population (CE, 2012). The Rural Development Policy of the European Commission is one of the two pillars of the Common Agricultural Policy (CAP). This helps in finding answers to the challenges facing rural areas for sustainable development.

Research Objectives

The main objective of this study is to analyse the challenges and problems in rural India and Europe that entrepreneurs might face in the current situation as well as to identify the route of entrepreneurial development and their associated emerging opportunities from the analysis of trends and characteristics revealed on a small medium size enterprise, particularly in the rural area. The other objectives are the following:

1. To recognize the major problems faced by rural entrepreneurs in India and Europe also find the impact of these problems on the working efficiency of those entrepreneurs who are living in rural part.
2. To provide an overview on the dynamics of India and European entrepreneurship and highlight the challenges for its development.
3. To determine the rural entrepreneurship perspectives, from their occupational performance and the motivations behind entrepreneurial start-up.

Research Methodology

The research methods are the analysis of different research articles, reports and policy papers and comparative analysis of statistical data from international databases. This research employed small medium entrepreneurship activities for development of rural areas of India, the researchers chose Vidarbha region as an Indian research area. The study is empirical and explanatory, the exploratory quantitative research was completed by means of a questionnaire and personnel interviews which was circulated to a sample of probable rural entrepreneurs from Vidarbha region of Maharashtra state. The study was conducted by a random selection of 130 participants, aged between 18 and 60 from small and medium size enterprises registered with this District Industries Centre. For while in this research for European countries study researchers uses secondary data from international databases - Global Entrepreneurship Monitor – GEM and Doing Business and The Entrepreneurship Database – registered for 2008 – 2012, and Flash Eurobarometer 354 Entrepreneurship in the EU and beyond, 2012.

Data Analysis and Results

Challenges and Perspectives for Indian Entrepreneurship

A) Demographic findings

From Table 1 it has been demonstrated that majority of the respondents i.e. 94 (72%) are males while females

constitute only 36 respondents (28%) The implication of this result is that majority of those who engaged in entrepreneurial activities are males it shows woman dominating Indian culture. Received response implies that majority of 49 respondents (38%) are from agriculture sector while 40 respondents (31%) from manufacturing sector, 32 respondents (24%) from service sector and 9 respondents (7%) from handcraft sector. While looking towards age structure the age of the majority 50 respondents (39%) of those entrepreneurs range from 25 to 35 years, and minority respondents i.e. 17% belongs to up to 25 years, followed by age range 36-45 that is 38 respondents (29%), age group ranging more than 46 years recorded 9 respondents (8%) and the least being age range 56 and above found 20 respondents (15%). The result implies that most of the respondents are in their active and productive age.

Table 1. Demographic Variables
Source: Researcher's calculations based field survey

Sr. No	Particulars/ Variables	No of respondents	Percentage
1	AGE		
	Up to 25 years	22	17
	25-35 years	50	39
	36-45 years	38	29
	More than 45 years	20	15
2	GENDER		
	Male	94	72
	Female	36	28
3	EDUCATION		
	Secondary	46	35
	Diploma	28	22
	Bachelor degree	41	31
	Master degree	15	12
4	OCCUPATION		
	Agriculture/Agro industry	49	38
	Manufacturing	40	31
	Service	32	24
	Handcraft	9	7

B) Challenges of entrepreneurs

Entrepreneurs play a very important role in the economic development of a country. They face numerous problems and challenges in day to day activities. As the thorns are part of roses, similarly every flourishing business has its own kind of problems. Some of the major problems faced by Indian rural entrepreneurs are as under.

Table 2. Challenges of rural entrepreneurs Source: Researcher’s calculations based field survey

Statements	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean*	SD*
Family members were not agreed with my decision to be an entrepreneur.	53	32	8	25	12	2.03	0.9
I could not manage start-up capital very easily to start the business.	32	41	7	50	0	2.24	1.1
Poor financing creates major issue while stating new business.	9	18	6	59	38	3.89	1.47
Required training/course facilities are not available	4	7	8	66	45	3.92	1.37
There are lacks different skills (management/ marketing etc.) to conduct the business	12	47	9	40	22	2.77	1.41
Political influences hamper my/our entrepreneurial activity	10	13	12	58	37	2.19	1.18
My suppliers are not very co-operative/supportive.	20	18	10	44	38	3.78	1.3
Infrastructural problems (water/electricity/gas/transportation etc.) are very hazarders to run the business	6	0	3	63	58	5	1.36
Inadequate technological knowledge creates obstacles in our way to do business	8	17	10	52	43	3.1	1.19

*Mean value greater than the midpoint of 5 or 2.50 indicates challenges. *Smaller SD (standard deviation) indicates lower dispersion among the responses in each statement.

Table 2 shows different problems that can hamper the way of rural entrepreneurs in their path to success. Handling enterprise can occasionally be hampering to comprehensive the social concern. That can increase scandalous language from family and this plays a role of negative to inspiration. The preliminary consensus and frequent assistant is very much critical to endure the business successfully. In response to the declaration “family members were not agreeing with my decision to be an entrepreneur” 53 respondents were strongly disagreeing with mean value (2.03) and the standard deviation (0.90) reveals, that rural peoples are not facing problems by their family. That means, the entrepreneurs in India were getting co-operation of their family members. The result shows 41 of the respondents disagreed and 50 respondents agreed with the statement - “I could not manage start-up finance very easily to start the business”. The mean value (2.24) and standard deviation (1.10). Being an entrepreneur, it is very important to manage working capital to manage everyday expenses. At this point, 59 of the respondents were agreeing with the statement “Poor financing creates major issue while stating new business.” mean value (3.89) and standard deviation (1.47). This result also reveals, that rural entrepreneurs are facing various problems to

manage working capital. Getting training is important to the progression in occupation. 66 of the respondents were supportive with the statement - “Required training/course facilities are not available. The survey outcome shows, that 40 of the respondents are supportive with the statement “There are lacks different skills (management, marketing etc.) to handle the business.” Also, 47 of the respondents are disagreeing with this declaration with mean value (2.77) denote the deficiency of diverse skills as challenge of rural entrepreneurs. Here the standard deviation is 1.41. We should understand that absence of managerial effectiveness can form straggler performance. To achieve labour, production, finance, research and development the management skill is enormous.

In response to the report “Political influences hinder my/our entrepreneurial action.” 58 of the respondents are agreed with this and 37 are strongly with this statement with mean value (2.19) also designate it as a problem concerning entrepreneurial growth along with Standard deviation is 1.18. Retorting the account - “My suppliers are not very co-operative/supportive,” 18 of the respondents disagreed, and 20 strongly disagreed with this report. Suppliers’ cooperation and support rarely necessity for the even movement of business process. Occasionally the incorrect choice of position, insufficient

water source, unequal supply of electricity and gas, transport can produce the random situation. “Infrastructural problems such as water, electricity, gas, transportation, etc.” - This account covers mean value (5) and standard deviation (1.36) revealed it as a challenge there 63 of the respondents agreed with the declaration and 58 strongly agreed. In response to the account “Inadequate technological knowledge creates difficulties in our way to do business.” 52 of the respondents agreed with this. The mean value (3.10) indicates a lack of technological know-how pose a challenge for rural entrepreneurs with the Standard deviation is 1.19 in this statement.

C) Entrepreneurial motivation behind entrepreneurship

In order to measure entrepreneurial motivation, as for the attitude towards the work they perform at the time of the research, the potential entrepreneurs consider that, although it is attractive and appreciated by the other citizens, it fails to secure them the long-expected income. The reasons which determine potential entrepreneurs to start a business are as diverse as the activities in which they choose to be involved. Figure 1 shows the main entrepreneurial motivations as resulted from the research we performed. The result shows that the most consistent group of 32 respondents has perception that

entrepreneurship as a source of higher income (25%) and 12 respondents were attracted by the idea of being independent (9%). 19 entrepreneurs have another type of motivation lies in the desire to provide security and a good future for the family (14% of the investigated subjects). Another category of entrepreneurs is constituted by what we may call “authentic entrepreneurs”, whose motivation lies in the desire to borrow and put into practice business models in the domains in which they have experience (8%), or the ones who are not content with their previous work. On the contrary 19 respondents (14%) forced to become entrepreneur because of family tradition they have to continue the family business. 7% of respondents majorly woman’s they want to utilize their free time and wish to support family by extra source of income. India is a country where everyone wants to work with government services for financial and job security but unfortunately looking towards Indian population government cannot provide jobs to everyone and private jobs that’s why nowadays individuals were entering into entrepreneurial activity from our study. 9% of respondents has opinion that there are not sufficient opportunities in government jobs. 8% of respondents being employer would like to provide job opportunities to other local peoples. This result of the study shows the various motivation factors being an entrepreneur in rural India.

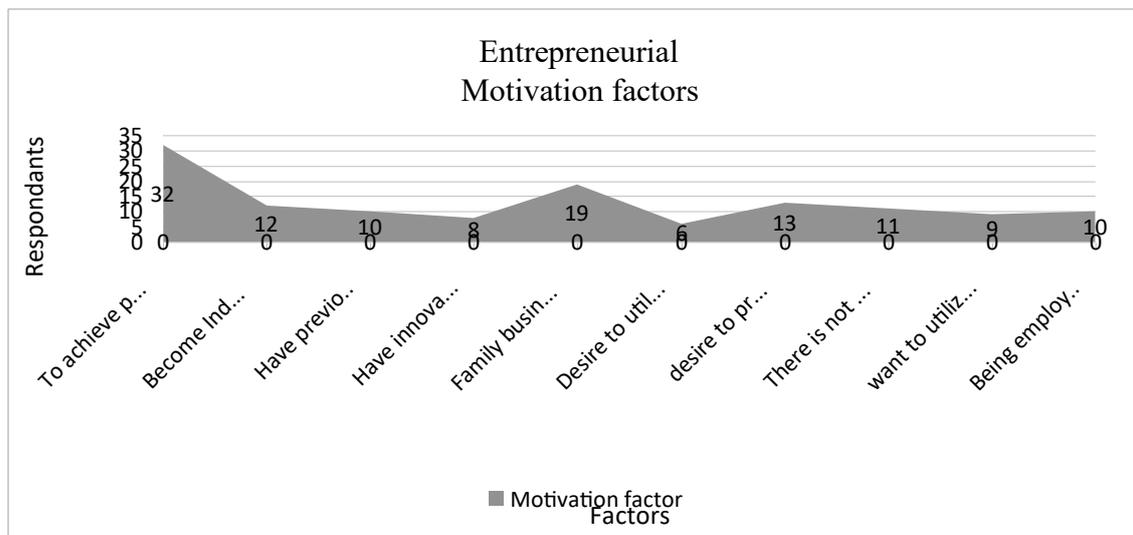


Fig. 1. Entrepreneurial motivation behind entrepreneurship
Source: Researcher’s own calculations based field survey

Challenges and Perspectives for European Entrepreneurship

In the current situation Europe is going through one of the most important transformation, which the European Union should take benefit, in order to recognize new responses to existing problems and to find new way to solve this issue. Europe must develop a new entrepreneurial culture, accustomed to society and built on knowledge, innovation and participation of a huge number of people in entrepreneurial activities. Therefore,

we must discuss about importance of education and training: since we have an idea about these prepare important factors of a sustainable society. European countries should concentrate on increasing the support provided to entrepreneurs, and ensure the dissemination of good ideas across the EU. This ensures increase in the percentage of population involved in entrepreneurial activities, improving and encouraging the reforms that generate growth and employment. The networks which support entrepreneurs, entrepreneurship improvement,

analysis and dissemination can ensure the dissemination of good ideas across the entire EU, and can contribute to the development of a new entrepreneurial spirit in the future. In view of the features show above, this research countries from the perception of the listed areas of intervention proposed by Entrepreneurship 2020 Action Plan: entrepreneurial education and training, creating a supportive business environment.

provides focus on the various aspects of European entrepreneurship throughout the crisis and at provides brief about the problems and challenges associated with entrepreneurship and its development in European

People living in EU acknowledge that entrepreneur plays very vital role in development of country by the menace of development of economy and society. With the help of data collected from the latest Eurobarometer on entrepreneurship in European Union, Figure 2 demonstrates about people's perception that entrepreneurship provide new job opportunities and entrepreneurs' role in generating products and services which provide benefit to the entire society. It shows that a huge number of European people has a positive perception on entrepreneurs and agree on the benefits of entrepreneurship.

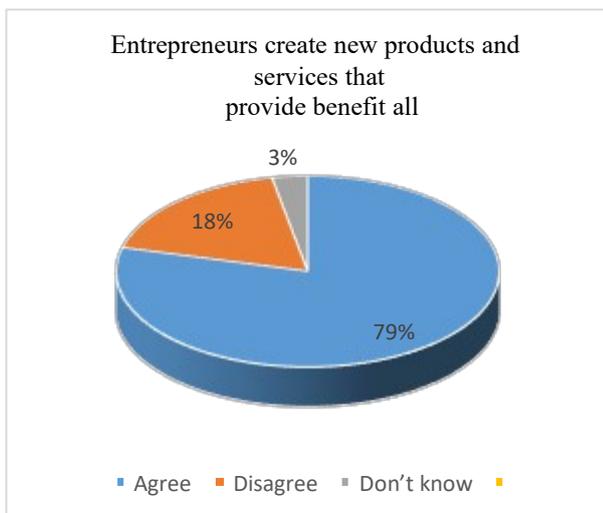
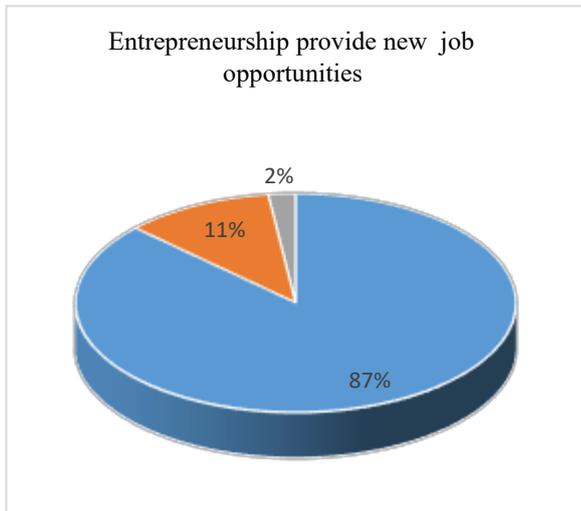


Fig. 2. Insights of the role of entrepreneurship, EU - 27, 2012

Source: Data presentation based on data from European Commission (2012)

A) Entrepreneurial education and training

In recent years researchers, academicians and policy makers put much emphasis on entrepreneurship education. In the face of crisis in the corporate world and heightened unemployment, many governments emphasize on entrepreneurship as an alternative way out. Moreover, unprecedented enthusiasm is also observed from the demand side as well. Educated youths as well as dropouts from high schools or colleges are found interested to equip themselves with entrepreneurship knowledge and skill, viewing it as a lucrative career alternative. As a result, intervention in the form of entrepreneurship education and training has become a common scenario in almost all countries, developed or developing (Azim 2013). It has long been the conventional wisdom that some people are born entrepreneurs and will succeed with or without education, while no amount of education can provide business success for those who lack the "entrepreneurial spirit". But, experience demonstrates that people are entering business schools to learn about entrepreneurship, and there is a growing acceptance that elements of entrepreneurship can be taught and learned (Gottleib and Ross, 1997). Figure 3 shows the Europeans level of agreement in this matter. 50% of the respondents agreed that education provides them confidence to develop an entrepreneurial attitude. Only 47% agreed that education has help me to better understand the role of entrepreneurs in society while 41% of respondents considered that education teach them how to do the business.



Fig. 3. Perceived role of entrepreneurial education, EU-27, 2009 and 2012
 Source: Data presentation based on European Commission (2012)

Figure 3 describes an insignificant rise in the level of agreement between 2009 and 2012. If we will compare current situation i.e. 2017 with compare to 2012 there is not much difference with numbers which express todays situation there is necessity to encourage and to support entrepreneurial education in all European countries.

B) Business environment

One of the most important Entrepreneurship 2020 Action Plan is to form a supportive business averment for overall development of country. The available data also sets six main areas to eradicate the current problems in start-ups and new business growth (European Commission, 2013, p. 8): “access to finance, support for entrepreneurs in the crucial phases of the business lifecycle and their growth, unleashing

new business opportunities in the digital age, transfer of business, bankruptcy procedures and second chance for honest entrepreneurs, and regulatory burden reduction.” Figure 4 shows that the alleged problems which might be come across when starting up a business. The assessment between data from 2009 and data from 2012 demonstrates difficulties with slight changes even current situation with compare to 2012 there is not much difference with numbers the situation is same as previous. The effect and availability to get second chance for starting new own business, generate finance /manage start-up capital while stating new business, time consuming and lengthy legal laws and formalities/procedures, Information gap/non-availability of required information, and risk taking and failure in entrepreneurship are considered as main difficulties in starting-up a business.

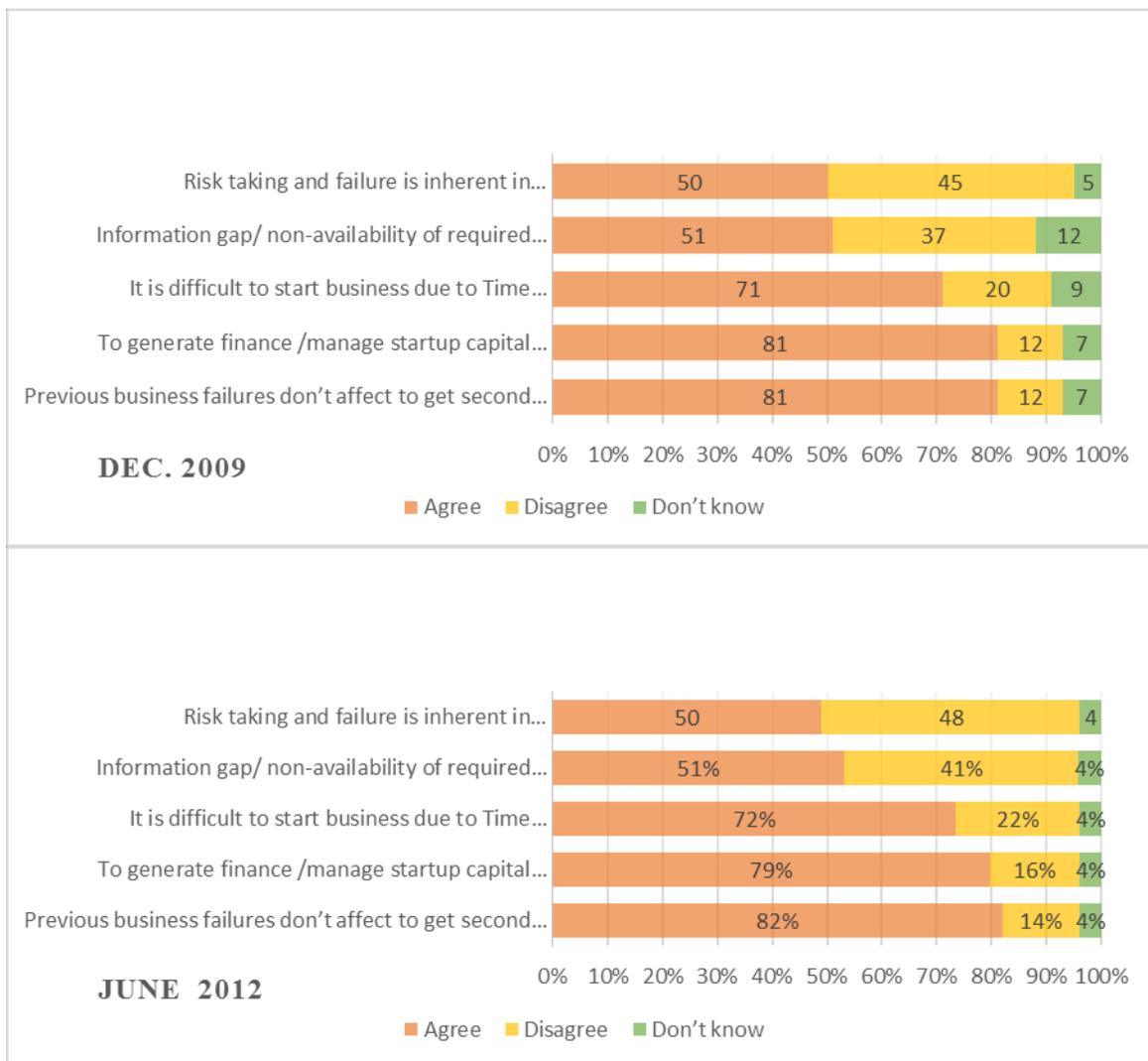


Fig. 4. Difficulties in starting up a business, EU-27, 2009 and 2012
 Source: Data presentation based on European Commission (2012)

Conclusions

In the present research work, we demonstrated that on the basis of analysis of data and discussion of their results it is concluded that entrepreneurs in rural India and European countries face various problems such as entrepreneurial/business problems, social/personal problems and technical problems. This entrepreneur's due to the deteriorating conditions cross the boundary of conservativeness. From the current study research, it has directed to a sequence of results which highlighted, among other aspects, the motivational factors related to entrepreneurial innovation. Thus, the most important influences in favour of introducing new businesses are associated to providing a decent living standard. Concerning the increasing attraction of business environments for new business initiatives, the respondents indicated, in this order: agriculture, services, manufacturing, commerce and tourism.

In Indian business environment the essential ethics of the entrepreneurial type, such as acceptance and indecision control, risk taking or the acceptance of failure is rather guardedly shared by possible rural entrepreneurs. The comparative analysis of the growth of numerous indicators of the dynamics of European

entrepreneurship during the crisis points out on one side, relatively low levels of entrepreneurial activity in most of the analysed EU members and, on the other side, a positive situation. Though registering low values, the indicators mentioned above display ascending trends, after a significant decrease in the first year of the crisis. Besides, a growing number of Europeans are willing to become entrepreneurs.

The main challenge at an Indian and European level consists in increasing entrepreneurial activity and providing support for more and more people to become entrepreneurs. The measures undertaken up to the present are meant to overcome the challenges. They are aware and declare their recognition of entrepreneurship as a solution for providing job opportunities and growth. In most countries, progress has been made in creating a supportive business environment; with less time, consuming and lengthy legal procedures and easier access to finance; more people are aware of the importance of entrepreneurial education and the need to include specific groups in the training programs. The moment when almost unanimously maximum Indian and Europeans appreciate entrepreneurs as models and choose entrepreneurship as desirable career choice.

References

- Azim, M. T. (2013). Entrepreneurship Training in Bangladesh: A Case Study on Small and Cottage Industries Training Institute. *Life Science Journal*. 10(12s):188-201
- CE. (2012). Commission staff working document a view of employment, growth and innovation in rural areas. European Commission
- Brown, F., Harris, M.G., and Other, A.N. (1998). Name of paper. In Name (s) of editor(s) (ed.), *Name of book in italics*, page numbers. Publisher, Place of publication.
- European Commission (2012) Flash Eurobarometer 354 Entrepreneurship in the EU and beyond, accessed on April 2014 at http://ec.europa.eu/public_opinion/flash/fl_354_en.pdf
- European Commission (2013) Entrepreneurship 2020 Action Plan Reigniting the entrepreneurial spirit in Europe, accessed on March 2014 at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:EN:PDF>
- Gottlieb, E. and Ross, J.A. (1997). Made not born: HBS courses and entrepreneurial management. *Harvard Business School Bulletin*,. 73 February, 41/5.
- Gwija, S. A. (2014). Challenges and prospects of youth entrepreneurship in Khayelitsha, Western Cape.
- Nafukho, F., M. Kobia and D. Sikalieh (2010). "Towards a search for the meaning of entrepreneurship." *Journal of European industrial training* 34(2): 110-127.
- Shane, S. and S. Venkataraman (2000). "The promise of entrepreneurship as a field of research." *Academy of management review* 25(1): 217-226.
- Venkataraman, S. (1997). The distinctive domain of entrepreneurship research. In *Advances in entrepreneurship, firm emergence and growth*, 3. 119-138. JAI Press Inc.

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Dhanashree Katekhaye PhD student in Doctoral School of Management and Business Administration, Szent István University, H-2100 Gödöllő, Péter Károly u. 1, Hungary, Tel.: +36 28 522 000; e-mail: dhanashree25389@gmail.com

Róbert Magda, PhD, Habil, Associate Professor, Szent István University, Faculty of Economic and Social Sciences, Institute of Economics, Law and Methodology, Field of scientific research: land as a natural and economic resource, question of sustainability, utilisation of renewable resources, focusing on competitiveness. H-2100 Gödöllő, Péter Károly u. 1, Hungary, Tel.: +36 28 522 000; E-mail: magda.robort@gtk.szie.hu



CAUSES OF DEPRIVATION IN REGIONS WITH DIFFERENT URBANISATION LEVEL

Emese Bruder¹, Hakan Unal²

¹ Faculty of Economics and Social Sciences, Szent Istvan University, Hungary

² Doctoral School of Management and Business Administration, Szent Istvan University, Hungary

Annotation

Poverty is becoming a major issue in the modern world; recent economic crisis clearly had an unfavourable effect on Europe's poor population. The economic situation of a country - through wages - has a clear impact on the level of poverty. This study focuses on a special group of socially excluded people - the deprived - and tries to investigate the symptom of being poor in Europe by using an absolute poverty measure. The so-called deprivation index is made up of different factors of the household related to living conditions and livelihoods.

Previous research showed, that urban and rural household have to face different conditions in terms of the causes of becoming poor. Urban poverty is a multidimensional phenomenon. However, households living in urban areas have more possibilities on the labour market, still large share of the urban households are at high risk of being poor. The urban poor live with many deprivations. Their challenges include limited access to employment opportunities and income, inadequate and insecure housing, violent and unhealthy environments, little or no social protection mechanisms, and limited access to adequate health and education opportunities. Central European countries have different path of European integration and economic development. Nevertheless, the determinants of being poor are various within regions of different urbanisation level. The goal of this paper is to explore these dissimilar causes across Europe and to determine factors that affect household level deprivation. In our analysis, we use binary logistic regression model to investigate the main drivers of being poor in different European countries with special focus on the differences of urban and rural areas. The analysis bases on the 2013 wave of EU-SILC cross-sectional micro data provided by Eurostat. In our research, we put the emphasis on identifying the most important attributes that characterise the group of the deprived population. We declare, that without a throughout analysis within this social group and without a deeper understanding and mapping of the problem, finding a solution is impossible.

KEY WORDS: deprivation; poverty; income; Europe.

Introduction

Nowadays, many theoretical and empirical studies have had challenging times to measure poverty. Poverty analyses have been based on a single indicator, generally income or expenses, used as a tool to measure deprivation. Although monetary measures have their value in terms of easiness of computation and comparability across countries, they have been considered as partial and indirect indicators of poverty.

During the transition process took place in former Soviet Union's old centralized economies, when economy collapsed, privatization and transformation processes in industry and services have been taken place. Later the effects of EU membership came out; this all received considerable attention by economists (Svejnar 2002, Roland 2000, Blanchard 1997).

Interestingly, however, in small rural areas, changes in welfare state processed more significantly. While development, scientists and policy makers have had a strong interest in the poverty differences between the rural and urban areas, but the information in European countries are often limited, and often restricted to a few country-specific analyses (Seeth, 1998, Cord et al. 2003). There is no comparative analysis of information – extending the understanding of the effects of the transition on rural poverty. The negative impacts on some variables such as health and social indicators are known

little. However, differences between rural and urban areas have been compared based on their income poverty. (Jensen–Richter 2004, Brainerd–Cutler 2005). What we are focusing is on to compare rural and urban areas selecting most significant variables which have shown being the determinants of becoming poor.

The first objective of this article is to address this gap by exploiting a new set of data that compares urban and rural poverty in European countries (Austria, Hungary, Lithuania Poland, Czech Republic and Slovakia) and compare how rural-urban poverty differ in 2013 based on EU-SILC database.

In many countries, poverty has been found to be a predominantly rural phenomenon, although urban poverty remains a reality even in high-income level countries. Although individuals with a profound and stable job market opportunity for a relatively wide range of urban populations, relative density and urban economies make it possible to provide many services at lower costs and with greater quality in the rural areas. Poverty in cities can be a consequence of in-migration of the poor from somewhere else; but it can also be caused by periodic or structural mismatching of workers with available jobs.

Research in poverty recently has experienced a significant shift towards more complexity conceptualization. Unlike, the concept of economic poverty, which is embedded in traditional income-based approaches, poverty is considered more related to bad financial conditions and social and environmental

conditions. The need to complement the direct and indirect indicators of poverty to achieve a full picture of living standard has been emphasized by providing in many empirical studies (Ravallion 1995, Deininger–Squire 1996, Schults 1998).

Traditional poverty analysis uses a single indicator for poverty as a proxy. Although there are monetary measures based on simplicity and comparability in terms of calculation, they are partial and indirect demonstration of poverty among the nations. In the last decades, traditional one-dimensional approaches have been questioned and alternative approaches have been put forward. According to recent literature (Duclos–Tiberti 2016), poverty is multifaceted and pervasive. Poor individuals are often faced with various deprivations, both economically and socially. As a result, poverty should be addressed as a multidimensional phenomenon and non-monetary indicators should be studied to provide a better understanding (Townsend 1979, Ringen 1988, Nolan–Whelan 1996, Perry 2002, Whelan et al. 2006).

One of the main findings is that the outcomes of the analysis can be very different if it is based on indicators of income or other living standards. In other words, while some people with low living standards earn income above the poverty line, some people under poverty may experience satisfying living conditions. Deprivation is the most obvious candidate for an extreme poverty measure. The EU indicator of lacking 3 or more listed items is not perhaps extreme, but it is an EU wide threshold. The EU deprivation index was based on work by Guio (2009) using 2006 SILC data. In this work, he suggested a nine-indicator scale to measure deprivation. The nine items are the followings: capacity to face unexpected expenses, cannot afford one-week annual holiday away from home, arrears on mortgage or rent, cannot afford meal with meat, chicken or vegetarian equivalent, cannot afford to keep home adequately warm, having a washing machine, a colour TV, a telephone, or car. However, this deprivation index has been criticized by Bruder (2014) amending this deprivation index by adding additional items and deleting those items which are not a real deprivation indicator anymore in the EU such as; cannot afford owning a phone. The selected items should be aggregated into multidimensional indices by adopting adequate weighting. Different weights have been proposed, but no theoretical justification for the privilege of any of them has been provided. Some studies apply equal weights while avoiding assigning different importance to each item (Hallerod 1995).

Multidimensional approaches to poverty and deprivation have a long and distinguished history in conceptual and philosophical work (Sen, 1992). In more recent studies, significant attention has been paid to the relationship between deprivations, ways of communicating with them, and methodologies for the validity of indicators used in composite or multidimensional indices (Alkire et al. 2015). Showing on 2013 EU-SILC data, Guio and Maquet (2006) suggested a multi-dimensional indicator of material deprivation such as poor housing, lack of durable assets, and the inability to reach basic needs. The indicator provided significant unfavourable trends across the EU and in most of the Member States, showing increasing

material deprivation over time. Whelan (2007) used the 2004 EU-SILC data set for the development of a consistent poverty index with 11 items, however, Whelan and Maitre (2008) used several statistical methods such as correlation and factor analysis, as well as reliability tests of material deprivation to describe three dimensions of material deprivation (consumption, household facilities, and neighbourhood environment) and studied their relationships with income poverty. Inherently, this deep analysis of the structure of deprivation resulted in a set of empirical and policy studies on the relationship between income and other deprivations and gave rise to applied multidimensional measures.

This paper contributes to this already significant recent literature by comparing the rural and urban regions in EU using 2013 EU-SILC data and one particular methodology to analyse urban and rural poverty.

Data and methods

As mentioned earlier, deprivation can be measured in many ways. In our article, we use the method introduced by (Bruder, 2014), which is a modification of the official methodology applied by Eurostat (Eurostat, 2012). We define a household being deprived if three or more conditions apply to it among the listed ones in Table 1.

Table 1. Deprivation items

Deprivation (deprived if 3 or more items apply)	
1	Arrears on mortgage, rent payments, utility bills, hire purchase instalments or other loan payments
2	Cannot afford washing machine, TV, telephone or computer
3	Cannot afford car
4	Cannot afford one-week holiday or unexpected expenses
5	Cannot afford to eat meat, chicken, fish (or vegetarian equivalent) every second day
6	Inability to keep home adequately warm
7	No bath, shower or indoor flushing toilet in dwelling
8	Leaking roof, damp walls/floors/foundation, or rot in window frame or floor
9	Inability to make ends meet

Source: own construction based on (Bruder 2014)

EU-SILC database contains all necessary variables for identifying deprived households. Further analysing the deprived and finding main causes of urban and rural deprivation in selected countries of Central Europe, we also used an individual level definition of deprivation. For individual level analysis, we characterised a person to be deprived, if he/she is living in a household affected with deprivation.

Urbanisation level of households (urban/rural) is defined based on the general definition used by Eurostat (2011). Based on the share of local population living in urban clusters and in urban centres, Eurostat classifies local administrative units level 2 (LAU2) into three types of area. Densely populated (urban) areas are those, in which the population density is at least 1500 inhabitants per km² and the minimum population is 50000. A thinly-populated (rural) area is characterised by population density lower than 300 inhabitants per km² and the population is under 5000.

The territorial coverage of this research is Europe, but due to data limitation, data of Switzerland and Slovenia is not being analysed. The selected European countries are: Austria, Czech Republic, Germany, Hungary, Lithuania, Poland and Slovak Republic. For the logistic regression analysis, we had to apply further limitations, due to space limitations. The chosen countries for comparison are three neighbouring countries in the heart of Central Europe: Austria, Hungary and Slovak Republic plus one Baltic state country Lithuania.

We are investigating the chances of being deprived in terms of few selected key variables. The independent variables of the logistic regression model are chosen based on two main criteria. First, data availability in the EU-SILC database was a key issue. Secondly, investigating the literature, and based on our own experience, we wanted to build a simple, but meaningful model. During the model specification process, we faced many pitfalls, like missing data, low goodness-of-fit in sub-groups and low explained variance. The final model, what we presented in this paper is meets all the requirements and assumptions of logistic regression.

The logistic regression analysis is conducted on the individual level dataset. The dependent variable of the model is deprivation, i.e. whether the individual is a member of a deprived household. The factors included to analyse the individual effect of each are mainly household and individual characteristics connected to general demographic indicators. Literature suggested that gender is not a significant determinant of being poor, but we decided to include sex of the individual to the analysis, to be able to control for the gender differences of employment and educational level. Work intensity of the individual is defined as people living in households with very low work intensity i.e. people of all ages (0–59) living in households where the members of working age worked less than 20 % of their total potential during 12 months prior to the survey. All analysis presented in this paper is based on the 2013 wave of EU-SILC database provided by Eurostat. The analysis is made applying the household and individual cross-sectional weights.

Results

In figure 1, we demonstrate the deprivation rates of all households in each country as well as the mean equivalized disposable income per year. It can be seen on the graph that mean equivalised disposable income is a good predictor of deprivation rate in the selected countries.

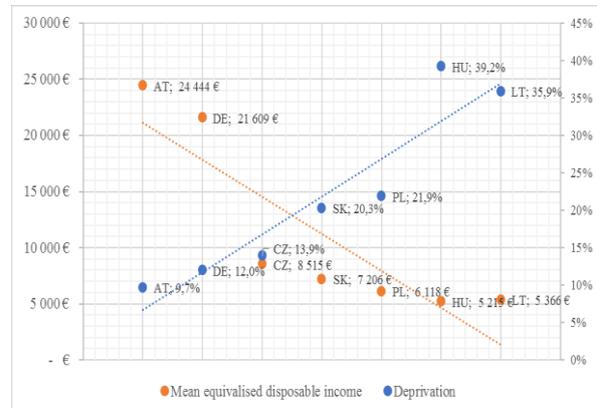


Fig. 1. Percentages of deprived households and the mean equivalised disposable income/year by county, 2013
Source: Own calculations

Based on this demonstration, for instance; mean equivalised disposable income of Austria is at 24,444 € and deprivation is at 9.7%. On the other hand, mean equivalised disposable of Lithuania is at 5,366 € and deprivation rate is at 35.9%. Table 1. shows percentages of deprived households and the mean equivalised disposable income/year by county, 2013.

Looking at the urbanisation level of deprived households across Central Europe, there are major differences across countries. Table 3 demonstrates the urbanisation level of the deprived households, where the significant cells are highlighted. Czech Republic and Hungary, urban and rural areas share close to equal number of deprived households. In more developed countries, like Germany and Austria, urban areas gather most of the deprived households; while rural areas face less than 20% of the deprived households. However, households living in urban areas have more possibilities on the labour market, still large share of the urban households are at considerable risk of being poor. Rural areas of Slovak Republic, Hungary, Poland are similar in a sense, that over 35% of the deprived households are living in these areas. From the results above it can also be seen, that rurality is a key issue in material deprivation. It seems that higher economic development may result in high rates of poverty in urban areas, as well as high living standards in thinly populated, rural areas. Although, in less developed countries, the deprived are mostly gathered in the unfrequented, sometimes emptied rural areas. As a matter of fact, in rural areas of less developed countries, the real estate prices are much affordable for the poor, and they are pushed to choose living in these areas even if the employment opportunities are less diverse compared to cities.

Table 2. Urbanisation level of the deprived households in selected countries, 2013

	Urban	Inter-mediate	Rural	Total
AT	53.1%*	28.3%	18.6%*	100.0%
CZ	31.7%	33.4%*	34.9%	100.0%
DE	47.4%*	33.3%*	19.3%*	100.0%
HU	31.9%*	31.8%*	36.3%*	100.0%
PL	34.6%*	22.9%*	42.5%*	100.0%
SK	23.4%*	27.4%	49.2%*	100.0%
LT	38,1%*	8,5%*	53,4%*	100.0%
Total	40.0%	29.7%	30.3%	100.0%

Note: $p < 0.05$; $\chi^2 = 767.5$; *st. residual > 2

Source: Own calculations

As mentioned earlier, the causes of deprivation are multidimensional, and rurality of the settlement can be a

key issue when we want to determine the chances of becoming poor. We also saw, that different economic development can result quite different understanding of living in a rural area in terms of becoming poor.

Investigating some of the drivers of becoming materially deprived in urban and rural areas in Central European countries is of deficiency. However, our analysis show, that there are major differences between urban and rural areas in terms of the causes of deprivation. To have deeper understanding of these causes, and since we believe individual characteristics are major origins of deprivation, we turned our analysis to individual level data. In Table 3 we summarise the log odds of becoming deprived in urban and rural areas. Due to space limitations, we show the results for three selected countries, Austria, Hungary, Lithuania and Slovak Republic. The election of the countries is subjective and based on the researcher's interest.

Table 3. Odds ratio of deprivation for individuals aged 16-59 years living in urban and rural areas in selected countries, 2013

	Austria		Hungary		Slovak Republic		Lithuania	
	urban	rural	urban	rural	urban	rural	urban	rural
Gender (Female)								
Male	0.98	0.80	n.s.	1.06	0.97	1.08	0.93	0.96
Work intensity (Not low)								
Low	6.98	5.51	2.89	3.35	6.97	7.72	5.41	3.46
Age (50-59 years)								
16-29 years	2.01	1.42	0.87	1.43	1.34	1.08	0.67	1.00
30-49 years	1.93	2.06	1.07	1.50	1.44	1.18	0.86	1.28
Education (ISCED 5)								
ISCED 0-1	8.06	5.39	10.20	20.83	14.53	13.54	3.66	4.60
ISCED 2	3.23	2.95	8.37	8.66	5.10	8.97	5.16	6.54
ISCED 3	2.17	1.99	3.44	3.61	2.69	4.04	4.25	3.64
ISCED 4	1.09	0.92	2.57	2.01	0.77	2.92	2.41	2.43
Household type (2 or more adults, no dependent children)								
One-person household	1.21	2.15	1.54	2.16	1.26	1.76	1.22	1.28
Single parent household, one or more dependent children	1.74	3.11	2.39	2.64	2.69	4.25	2.03	1.58
2 adults, one dependent child	0.58	0.47	1.02	0.98	0.76	0.93	0.50	0.67
2 adults, two dependent children	0.48	0.56	1.03	0.74	0.25	0.45	0.48	0.67
2 adults, three or more dependent children	0.79	0.67	0.88	1.72	0.90	1.47	2.76	1.18
Other households with dependent children	1.42	0.52	1.08	1.14	1.31	1.27	1.08	0.90
Country of birth (Same country as place of interview)								
Other country	3.32	1.27	1.26	1.68	2.93	1.49	1.48	1.60
Constant	0.02	0.02	0.11	0.08	0.04	0.04	0.15	0.13

Notes: Austria: densely populated area (urban) $R^2=0.261$ $N=2811$; thinly populated area (rural) $R^2=0.147$ $N=3260$; Hungary: densely populated area (urban) $R^2=0.151$ $N=3977$; thinly populated area (rural) $R^2=0.208$ $N=7673$; Slovak Republic: densely populated area (urban) $R^2=0.170$ $N=3045$; thinly populated area (rural) $R^2=0.253$ $N=4502$; Lithuania: densely populated area (urban) $R^2=0.224$ $N=3419$; thinly populated area (rural) $R^2=0.183$ $N=4299$

Source: Own calculations

Our results show that at a micro level, being in a low work-intense household has a substantial impact on the likelihood of being in deprivation, but the scale of these impacts is shown to be very much greater in some countries than in others. Nevertheless, living in an urban or rural area is effecting deprivation in diverse ways. In Slovak Republic, Hungary and Lithuania, living in a low work-intense household in a rural area yields higher chance to be deprived, although low work-intensity have less importance for the Hungarian citizens, compared to the Slovaks in general. In fact, more investigation should be done to find the potential causes of this phenomena. In Austria, the economically most developed country among the studied ones, citizens living in rural areas show less probability to be deprived, which again certifies, that living in a rural area – even with low-work intensity – not necessarily result in dispossession. Low work-intensity afflicts more the individuals who are living in urban areas.

Concerning the relationship between age and the likelihood of deprivation, it is clear, that age has a unique effect on being materially poor. The general statement is that older people are less likely to be in necessity, however, we found that in Hungarian cities, the 16-29 years generation is less likely to be deprived compared to the older (50-59 years) generation. Austrian young generations living in cities are more disadvantaged, they have double chance ($e=2.01$) to be deprived compared to the old. Also in Lithuania, the 16-29 years generation is less likely to be deprived compared to the older (50-59 years) generation.

Our results also show, that educational level has indeed a significant effect on deprivation. Those, who have no education should face multiple odds of being deprived in each selected country. The worse condition is in rural parts of Hungary, where uneducated have twenty times more chance ($e=20.83$) to face financial difficulties compared to the higher educated. Low educational level, in general, have less significance in Lithuania, which means that uneducated people here have a better chance to reach higher living standard compared to in Hungary and Slovak Republic or Austria. In Slovak Republic and Lithuania, it seems that rurality does not make huge difference for uneducated people in the chances of having to face deprivation.

Household type – being a unique determinant of deprivation – shows, that if a person is living in a one-person household, he/she has higher chance to be in deprivation in rural areas compared to urban areas. Single-parent households with dependent children are classified as being the most severely materially-deprived, the chances for deprivation is even higher, if the person is living in a rural surrounding.

Our last examined variable is the country of birth, focusing on differences between urban and rural areas. We believe country of birth will tell whether first generation migration would affect living standards while controlling for other factors in the model. We found, that migrants have higher chances of being deprived in urban areas in Austria and Slovak Republic, however, migrants in Hungary are more at-risk in rural areas.

Conclusions

Based on empirical evidences, our analysis showed, that there are major differences in the likelihoods of being deprived in rural and urban areas within the selected European countries. We believe rural to urban migration is partly generated by material deprivation. Although deeper understanding of rural poverty is desirable to make suitable policy responses. As we expected, deprivation rates are in relation with the mean equivalised income of the country. This suggest, that deprivation is a meaningful indicator not only about possession of goods and household equipment, but about income-level and poverty too. In less economically developed countries, the deprived are mostly congregated in the remote, rural areas, however, most of the deprived households of the developed Austria are living in cities. This suggest, that labour migration to cities might not result in higher living standards in Austria.

The main advantage of applying a multivariate regression analysis in poverty studies, is that, we can control for indirect effects of the factors being studied. For instance, gender was indeed, used as a control variable for detecting the odds ratio of work intensity and educational level. The limitation of this analysis is that it might neglect factors that are also important in producing poverty. However, the focus has been put to the differences between rural and urban deprivation, not a fully comprehensive likelihood analysis.

The possible application of this study is of a deeper understanding about rural and urban deprivation in Central Europe. Further studies should be conducted in Central European countries, and other countries of the European Union. Understanding rural deprivation is a key issue in finding solutions for rural to urban migration in the European Union and beyond.

References

- Alkire, S., James, F., Seth, S., Santos, M. E., Roche, J. M., Ballon, P. 2015. *Multidimensional Poverty: Measurement and Analysis*. Oxford University Press. Vol. 87, pp. 289–314.
- Blanchard, O. 1997. *The Economics of Post-Communist Transition*. Oxford University Press. pp. 25-56.
- Brainerd, E., Cutler, D. 2005. Autopsy on an Empire: Understanding Mortality in Russia and the Former Soviet Union, *Journal of Economic Perspectives*, Vol. 19, No. 740, pp. 107-30.
- Bruder E. 2014. Kik a szegények Európában? A szegénység mérésének alternatívája. *Területi Statisztika*. Vol. 54 No. 2, pp. 152 – 171.
- Cord, L., Lopez, R., Huppi, M., Melo, O. 2003. *Growth and Rural Poverty in the CIS7: Case studies of Georgia, the Kyrgyz Republic, and Moldova*, World Bank, pp. 46
- Deininger, K., Squire, L. 1996. Measuring Income inequality: A new data base. *World Bank Economic Review*, Vol. 10 No. 3, pp. 565-591.
- Duclos, J.-Y., Tiberti L. 2016. *Multidimensional poverty indices: A critical assessment*. *Cirpée*, Working Paper 16-01. pp. 48.
- Eurostat 2011. *Eurostat regional yearbook 2011*. Luxembourg: Publications Office of the European Union, pp. 240

- Eurostat 2012. Measuring material deprivation in the EU – Indicators for the whole population and child-specific indicators. *Methodologies and Working papers*. pp. 178.
- Guio, A-C. 2009. “What can be learned from deprivation indicators in Europe? Paper presented at the Indicators Sub-Group of the Social Protection Committee”, *Eurostat Methodological Working Papers*. European Commission, pp. 2-8.
- Guio, A-C., Maquet, I. E. 2007. “Material deprivation and poor housing” What can be learned from the EU-SILC 2004 data? How can EU-SILC be improved in this matter? In: Comparative EU statistics on Income and Living Conditions: Issues and Challenges Proceedings of the EU-SILC conference, (Helsinki, 6-8 November 2006), *Eurostat Methodologies*, Working Papers, European Commission, pp. 28.
- Hallerod, B. 1995. The truly poor: Direct and indirect consensual measurement of poverty in Sweden. *European Journal of Social Policy*. Vol. 5, No. 2, pp. 111–129.
- Jensen, R., Richter, K. 2004. The Health Implications of Social Security Failure: Evidence from the Russian Pension Crisis. *Journal of Public Economics*. Vol. 88 No. 1-2., pp 209-36.
- Nolan, B., Whelan, C. T. 1996. *Resources, deprivation and poverty*. Clarendon Press Oxford. pp. 261.
- Perry, B. 2002. The mismatch between income measures and direct outcome measures of poverty. *Social Policy Journal of New Zealand*. Vol. 19., pp 101–127.
- Ravallion, M. 1995. Growth and poverty: Evidence for Developing Countries in the 1980s. *Economic Letters*, Vol. 48, No. 3/4, pp. 411-417.
- Ringen, S. 1988. Direct and indirect measures of poverty. *Journal of Social Policy*. Vol. 17, pp 351–365.
- Roland, G. 2000. *Transition and Economics: Politics, Markets and Firms*, Boston MIT press. pp. 400.
- Schults, T. 1998. Inequality in the income distribution of personal income in the world: How it is changing and why? *Journal of Population Economics*, Vol. 11, No. 3, pp. 307-344.
- Seeth, H. T., Chachnov, S., Surinov, A., Von Braun, J. 1998. Russian Poverty: Muddling Through Economic Transition with Garden Plots. *World Development*. Vol. 26 No. 9, pp. 1611-1623.
- Sen, A. 1992. *Inequality re-examined*. Clarendon Press Oxford. pp. 2017.
- Svejnár, J. 2002. Transition Economies: Performance and Challenges. *Journal of Economic Perspectives*. Vol. 16, No. 1, pp. 3-28.
- Townsend, P. 1979. *Poverty in the United Kingdom*. Penguin: Harmondsworth, pp. 1216
- Whelan, C. T. 2007. Understanding the Implications of Choice of Deprivation Index for Measuring Consistent Poverty in Ireland, *The Economic and Social Review*. Vol. 38. Issue 2. pp. 211- 234.
- Whelan, C. T., Nolan, B. Maître, B. 2006. Measuring consistent poverty in Ireland, with EU-SILC data. Economic and Social Research Institute, *ESRI Working Paper*. No. 165, pp. 28.
- Whelan, C. T., Nolan, B., Maître, B. 2008. Measuring Material Deprivation in the Enlarged European Union. Economic and Social Research Institute, *ESRI Working Paper*, No. 249, pp. 29.

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Emese BRUDER, doctor of management and business administration (2014), assistant professor at the Faculty of Economics and Social Sciences, Institute of Economics Law and Methodology at Szent Istvan University, Gödöllő, Hungary. Teaching theoretical and practical courses in MSc level in English and in Hungarian language. Is a young researcher with more than 40 scientific publications and research papers. E-mail: bruder.emese@gtk.szie.hu *Spheres of interest*: measuring poverty, well-being, quantitative methods.

Hakan UNAL, Phd candidate of Management and Business Administration PhD School, Szent István University Gödöllő, Hungary. Working closely with colleagues of the Institute of Economics Law and Methodology, Faculty of Economics and Social Sciences, Szent István University, Gödöllő, Hungary. E-mail: unal.hakan@phd.uni-szie.hu *Spheres of interest*: macroeconomics, poverty, rural development.



SOME ASPECTS OF DIGITALIZATION AND SUSTAINABILITY IN THE EUROPEAN UNION

Éva Görgényi Hegyes, Ildikó Csapó, Mária Fekete Farkas

Szent István University

Annotation

Nowadays knowledge has become a strategic resource, and plays a crucial role in education, innovation, different development processes, thus, in economic growth. Considering the rapidly and continuously changing business environment, the impacts of globalisation and digitalization, staying competitive is a great challenge for companies both in public and private sectors in the 21st century. Through the information society or knowledge-based society came to the fore, the use of diverse information technology tools and methods has become a significant influence factor in the daily life of both individuals and organisations. In this new economy the appearance of Information and Communications Technology (ICT), the different online applications – especially social media – represent a completely different and new structure in communication and education. Although the relationship between education and sustainable development is complex, there is no doubt that education is an essential tool for achieving sustainability. Also United Nations highlighted the importance of sustainability and the role of education and digitalization in it – in 2015 UN General Assembly emphasized the cross-cutting contribution of ICT to the newly defined Sustainable Development Goals as ICT can accelerate the progress of sustainability.

The current paper is intended to summarize the most important related literature and provide a better understanding of knowledge-based economy, digitalization and education for sustainability. Furthermore, the study offers a brief introspection into the current situation of Europe – compared with Hungary – in terms of digital competence and use of ICT. The research methods are the analysis of different related articles and reports, a comparative analysis of digital skills and competences between Hungary and European Union based on the reports published by the European Commission: Measuring Digital Skills across the EU: EU wide indicators of Digital Competence (2014); Survey of Schools: ICT in Education (2013) and Europe's Digital Progress Report 2017. Moreover, Authors mapped the current situation of ICT usage habits in secondary education in Hungary based on their own empirical research.

The main findings of the study show that Hungary has a better position in terms of digital skills in comparison with the average of the European Union. Although it is obvious that usage of different ICT tools is essential in education in order to make knowledge transfer easier, the inconvenience of the older generation can reduce the efficiency of the new technology in education. Summarizing the results it can be clearly seen that confidence of digital skills are higher in Generation Y and Generation Z, as they have the basic need to use different ICT tools, mobile and online technologies in their everyday life.

KEY WORDS: digitalization, sustainability, ICT, education, knowledge management, new economy

Introduction

According to the well-known Solow model economic growth and therefore growth of GDP are determined by the following three factors of production: labour (L), capital (K) and knowledge / innovation / entrepreneurial attitudes / technological developments (A) which can influence the efficiency of previous two also (Pongrácz and Nick 2017). Although Solow has already recognized and emphasised the importance of knowledge and innovation, researchers started to deal with information as a new factor of production only in the last few decades. The appearance of new information technologies, digital devices and the Internet has brought new challenges to the researchers as well as the different actors of the economy – on one hand the development of these new technological solutions leads to a complete restructuring of the economy, and on the other hand, the Internet and diverse online applications (especially social media) represent a completely different communication structure which also changes the behaviours of economic actors and the mode of operation of the economy itself.

Considering the rapidly changing business environment, staying competitive is a key issue and challenge for companies in the 21st century. The criteria

of a company's or a country's success and competitiveness is the changing behaviour of the different economic actors and its influence. Through the information society came to the fore, the use of diverse information technology tools and methods has become a significant influence factor in terms of the entrepreneurs or company management. "Society is entering into an era where the future essentially will be determined by people's ability to wisely use knowledge, a precious global resource that is the embodiment of human intellectual capital and technology" (Mupa, Chabaya and Chiome 2011). In this new knowledge-based economy education has a continuously increasing role in knowledge transfer – with use of the different types of Information and Communications Technologies (ICT) knowledge can be more easily identified, captured, organised, created, learnt and disseminated. Digital solutions play an important role also in sustainable development. As the UN General Assembly highlighted in 2015, Information and Communications Technology have a cross-cutting contribution to the reformulated Sustainable Development Goals (SDGs) and can accelerate progress across SDGs (Figure 1) (Global e-Sustainability Initiative 2017).

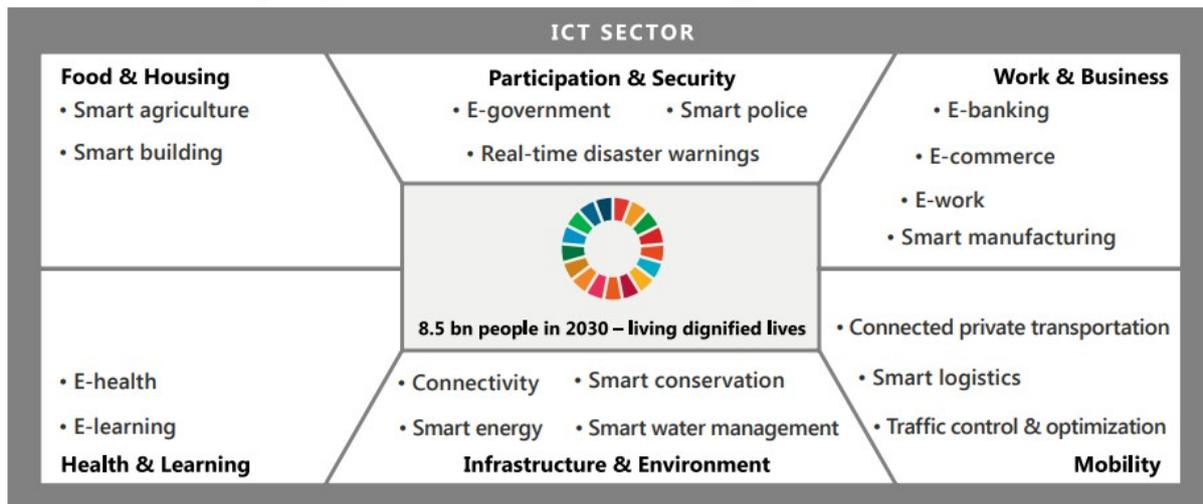


Fig. 1. Overview of digital solutions across all areas of life contributing to SDGs
 Source: adapted from Global e-Sustainability Initiative (2017)

It is also obvious that in this environment the demand for the education and training using new digital solutions and technologies will increase day by day, as ICT can increase the efficiency of knowledge transfer in education as well as the education level of the population. "Education is an essential tool also for achieving sustainability. People around the world have already recognized that current economic development trends are not sustainable and that public awareness, education, and training are key to moving society toward sustainability" (UNESCO 2006). Although importance of the sustainable development was recognized, a lot of time will be essential in order to change the behaviours and habits of people.

The current paper is intended to summarize the most important literature in terms of knowledge-based economy, digitalization and education for sustainability. The main objective is to find the role of digitalization or development of digital competences in the sustainable development – how education and knowledge society can contribute to the sustainability. Moreover, the study also offers a brief introspection into the situation of Hungary and Europe in terms of ICT usage habits in education.

Theoretical background

Role of digitalization – ICT, digital competence

The new technology revolution in 70's – mentioned as industry 4.0 –, the appearance of various Information and Communications Technologies, automation and digitalization enabled us to talk about "new economy", a knowledge-based economy today (Kovács 2017). The importance of digital competence was recognised also by the European Parliament and the European Council in 2006. Digital competence was identified and defined as one of eight key competences which are equally important and also essential for all individuals in a knowledge-based society. "Digital competence involves

the confident and critical use of information society technology (IST) for work, leisure, learning and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, access, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet" (European Parliament and European Council 2006). Total list of the competences is the following:

1. communication in the mother tongue;
2. communication in foreign languages;
3. mathematical competence and basic competences in science and technology;
4. digital competence;
5. learning to learn;
6. social and civic competences;
7. sense of initiative and entrepreneurship; and
8. cultural awareness and expression.

In 2011 the European Commission elaborated a Digital Competence Framework in DIGCOMP project called. Aim of the project was to describe competences needed by individuals to be digitally competent. The framework defines the following 5 main competence areas, and 21 competences within them:

1. Information
 - browsing, searching and filtering information;
 - evaluating information;
 - storing and retrieving information.
2. Communication
 - interacting through technologies;
 - sharing information and content;
 - engaging in online citizenship;
 - collaborating through digital channels;
 - netiquette;
 - managing digital identity.

3. Content creation
 - developing content;
 - integrating and re-elaborating;
 - copyright and licences;
 - programming.
4. Safety
 - protecting devices;
 - protecting personal data;
 - protecting health;
 - protecting the environment.
5. Problem solving
 - solving technical problems;
 - identifying needs and technological responses;
 - innovating and creatively using technology;
 - identifying digital competence gaps.

(European Commission 2013a)

According to the European Commission (2015) 90% of jobs will require some level of digital skills and competences in the future. In order to support and accelerate the progress of digitalization, there are different types of funding sources available both at European and national level – such as European Structural and Investment Funds (ESIF 2014-2020) recommended by the European Council in 2013 (European Commission 2015).

Education for sustainable development (ESD)

Directly after the new technology revolution the issue and concept of sustainability has also been given more attention. Based on the related literature, there is no generally accepted definition for sustainable development, and it is also continuously evolving which makes it more difficult to define. One of the original definitions derives from the Brundtland Report of 1987 which stated that “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987). However, recently more practical and detailed approaches have come to fore. Daly (1996) defined sustainable development as “development without growth beyond environmental limits.” Others said that sustainability is simply the ability to continue a well-defined behaviour indefinitely. According to Magda (2013) sustainable development “involves maximising the net benefits of economic development, subject to maintaining the services and the quality of natural resources over time.” It “ensures the well-being of humans by integrating social development, economic development, and environmental conservation and protection” (Magda 2013). Despite of many different definitions it is clear that sustainability is universally thought to have the following three components as pillars: environment, society and economy. In the last few decades, attention to sustainability or sustainable development is increasing – more and more researchers started to deal with this area. Recently researchers have not been talking about only three main categories, but also the following sub-dimensions can be evaluated: socio-economic (as the common section of social and economic dimensions), socio-environmental (as the

common section of social and environmental dimensions), and eco-efficiency (as the common section of economic and environmental dimensions). Furthermore, national governments and international institutions try to influence the behaviours and habits of people towards sustainability through the education also. Due to the unsustainable behaviour, Sustainable Development Goals (SDGs) were reformulated by the United Nations in 2015 (Global e-Sustainability Initiative 2017).

The relationship between education and sustainable development is complex. Generally, researchers stated that basic education is the key to a nation's ability to develop and achieve sustainability targets (UNESCO 2005). The concept of Education for Sustainable Development (ESD) was mentioned and firstly discussed at the World Summit on Sustainable Development held in 2002. According to UNESCO (2005) ESD consists of the following five elements:

1. education that allows learners to acquire the skills, capacities, values and knowledge required to ensure sustainable development;
2. education dispensed at all levels and in all social contexts (family, school, workplace, community);
3. education that fosters responsible citizens and promotes democracy by allowing individuals and communities to enjoy their rights and fulfil their responsibilities;
4. education based on the principle of lifelong learning; and
5. education that fosters the individual's balanced development.

Importance of knowledge management

Nowadays knowledge management has become one of the key success factors in the business sector as well as in the field of education. Moreover, knowledge became the most strategic resource. The ability of a knowledge manager to recognize links between disparate information from various sources and make them available in a single location is essential for individuals and organisations to make key decisions. As rightly described by Stewart T. (2002) the essence of knowledge management is connection, not collection. According to Quintas et al. (1997), knowledge management is described as the process of critically managing knowledge to meet existing needs, to identify and exploit existing and acquired knowledge assets and to develop new opportunities.

Other authors also determined knowledge management as a process – Liebowitz (2000) presented the following 9 step-approach:

1. transform information into knowledge;
2. identify and verify knowledge;
3. capture and secure knowledge;
4. organise knowledge;
5. retrieve and apply knowledge;
6. combine knowledge;
7. create knowledge;
8. learn knowledge.

According to the Knowledge Management Cycle Model built by Evans, Dalkir and Bidian (2014) knowledge management consists of 7 phases: identify, store, share, use, learn, improve and create as presented in Figure 2.

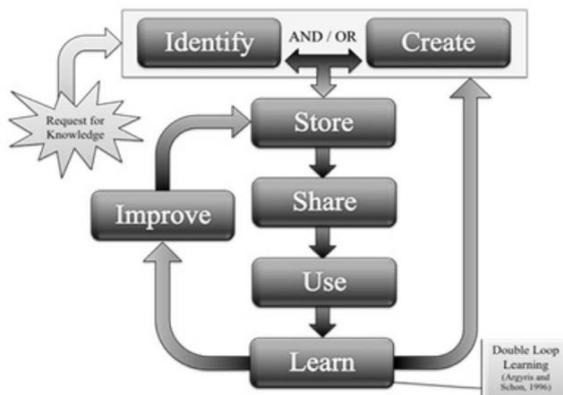


Fig. 2. Knowledge Management Cycle (KMC) Model
Source: adapted from Evans, Dalkir and Bidian (2014)

Similarly, Rodriguez and Al-Ashaab (2007) described it as a process and created a Knowledge Life Cycle (KLC) including the following steps:

1. identify and gather knowledge from different sources;
2. capture and standardize the knowledge and constraints in the form of rules (because of different formats);
3. represent the knowledge formally using knowledge management tools;
4. implement the knowledge into a knowledge based system;
5. use of the knowledge to support decision making process;
6. create – new knowledge creating through experiments, capturing lesson learnt from previous projects, etc.;
7. maintain and upgrade.

It can be clearly seen that definitions and process steps determined by different authors and sources are very similar, therefore, we can declare that knowledge management is not about “what”, but about “how”. Knowledge management is about acting to build and leverage knowledge through an understanding of how it is created, acquired, processed, distributed, used, harnessed, controlled, etc. (Wiig 1993).

Due to the globalisation and developments of information technology the importance of knowledge is growing, knowledge has become a critical source of competitive advantage and value creation what encouraged all sectors – such as business or education – to pay attention to the knowledge-based solutions and different knowledge management tools. A knowledge society has been defined by Afgan and Carvalho (2010) as “a human structured organization that is based on contemporary developed knowledge and representing new quality of life support system”. Knowledge is obviously the central pillar of a knowledge society that has access to wide range of information and the ability to process that information and transform it into useful knowledge. The rapid growth of ICT, including the increasing number of mobile and online applications, has further changed the characteristics of the knowledge society, which is composed of different dimensions (social, cultural, economic, political and institutional) that are specific to its own culture and environment (Liaquat and Advic 2015). Today, a knowledge society is a source of human and sustainable development (UN 2010); thus, it is beginning to play a fundamental role in building sustainable societies.

If we talk about knowledge or knowledge society it is essential to understand the following terms: absorption and diffusion. Absorption means the ability of an individual or company to absorb and apply specific knowledge in unchanged form. Skills development have an essential role in this progress, as quality of human resources can be improved through education which can enable organisations to adapt. By comparison, diffusion means the spread of knowledge that is adapted / improved / upgraded to the local circumstances (therefore not the same form). One of the most important issues in relation to knowledge diffusion is the analysis of Internet usage habits and impacts of ICTs (Kovács 2017).

Aim and objectives

The main objective of the paper is to provide a better understanding of the relationships among digitalization as a tool of knowledge management, education and sustainable development. The other objectives are the followings:

- to determine the role of digital competences in education;
- to provide an overview about the importance of education for sustainability;
- to offer a brief introspection into the situation of Hungary also in comparison with the European Union in usage of ICT.

Research methodology

The research methods consists of the analysis of different related research articles and reports, a comparative analysis of digital skills and competency between Hungary and European Union.

In order to exploit the different available funds and projects effectively, it is essential to know the current situation. The purpose of this research work is to map the European situation based on the reports published by the European Commission: Measuring Digital Skills across the EU: EU wide indicators of Digital Competence (2014); Survey of Schools: ICT in Education (2013) and Europe’s Digital Progress Report 2017. Therefore, our study can contribute to the identification of digital gap in member countries. Essentially, school education should be analyzed, after the overview of total European population the results of students will be summarized.

In the second part of results Hungarian situation will be analyzed in terms of digital skills. Since the greatest evolution can be observed in the newly grown generations, our own research employed in Hungarian secondary schools in 2016. The study was empirical, the quantitative research is based on the Authors’ own questionnaire survey. The study was conducted by a random selection of 127 participants overall – 91 teachers worked in Hungarian secondary schools and 36 secondary school students. The sample collecting method was the referral (snowball) sampling. This is a non-probability sampling technique where existing study subjects recruit future subjects from among their acquaintances. Thus, the sample group is said to grow

like a rolling snowball. As the sample builds up, enough data are gathered to be useful for research. One and multivariable processes were used as analyzing methods. This survey is supported by an online survey later, with 82 further participants.

Results

European situation

According to the reports published by the European Commission (2017), in 2016, 44% of the European population had an insufficient level of digital skills. 19% had none at all, as they did not use the internet – there is a little improvement in comparison with 2012, when this rate was 23%.

There are large disparities across countries, with the share of people without digital skills ranging from 3% in Luxembourg to 41% in Bulgaria and Romania. In 2012, the lowest rate (6%) belonged to Sweden and the highest (50%) was in Romania. In 10 countries (Portugal, Poland, Slovenia, Croatia, Lithuania, Italy, Greece, Cyprus, Bulgaria and Romania), at least one-quarter of the population had no digital skills in 2016. Moreover, in Bulgaria and Romania, nearly three-quarters of the adult population can be considered as lacking basic digital skills. It is very interesting fact that Italy, with its large population, is also in this category which means that almost 18 million people live there with insufficient digital skills.

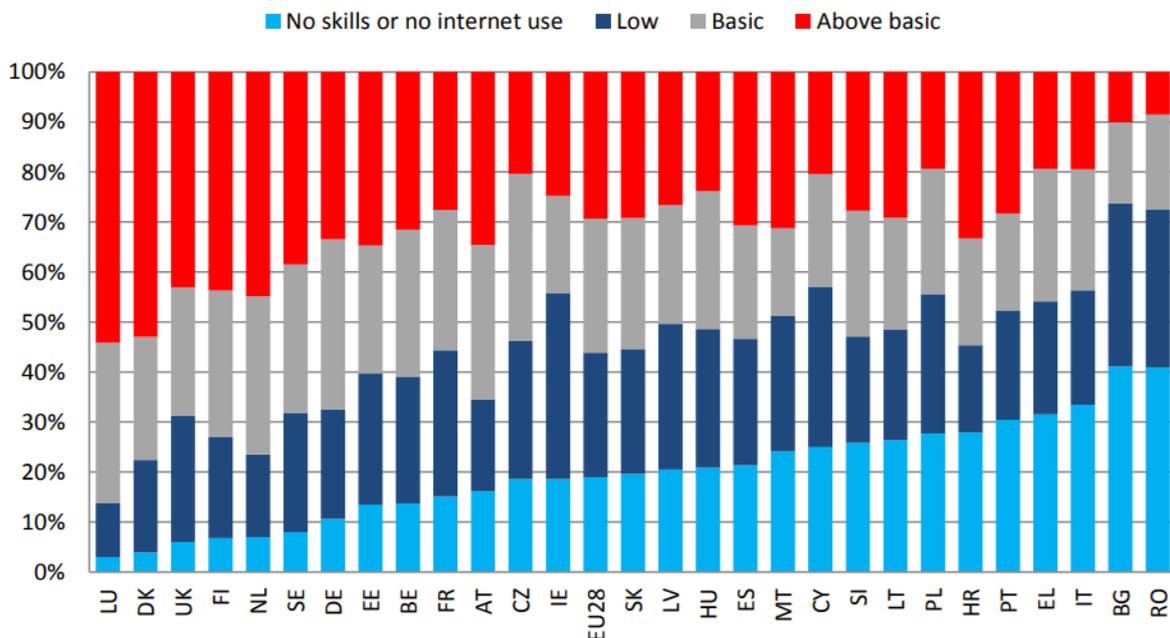


Fig. 3. Digital skills of the EU population, 2016
Source: adapted from European Commission (2017)

After reviewing the situation of total European population it is essential to map the digital skills of younger generations. Since latest report of the European Commission (Europe’s Digital Progress Report 2017) does not include the results of students, the Survey of Schools: ICT in Education (data was collected in 2011) published by the European Commission in 2013 was used to analyze their digital competences. In this particular case, results were identified 40 following 4 skills which are corresponding the competence areas of the DIGCOMP project: operational skills, social media skills, responsible internet use and safe internet use. The most relevant information for this paper can be exploited from

the results of operational skills and social media skills of the students (Likert scale ranging from 1 to 4 was used). As Figure 4 represents the most confident students in their operational use of ICT live in Poland (3.01) followed by Portugal (2.81), France (2.80), Norway (2.77) and Lithuania (2.74). Examined students were least confident in Luxemburg (2.26), Turkey (2.40), Belgium (2.42), Ireland (2.45) and Greece (2.45). In comparison with the average of European Union (2.63) Hungary (2.70) is in a better position than average, directly after the above-mentioned Lithuania.

Fig. 4.18a: Students’ confidence in their operational use of ICT
(grade 8, country and EU level, 2011-12)

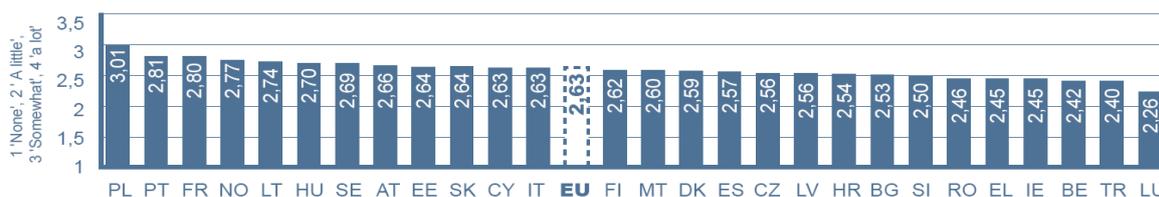


Fig. 4. Students’ confidence in their operational use of ICT
Source: adapted from European Commission (2013b)

Nowadays use of social media applications has become one of the most important factors in the daily life of both individuals and organizations. For newly grown generations this type of communication channels is essential in order to share information with each other also in case of education. In the international comparison it can be clearly seen in Figure 5 that the highest level of

confidence was again in Poland (2.82) followed by Estonia (2.72), Sweden (2.66), Portugal (2.65) and Finland (2.64). The least confident students surprisingly live in Luxemburg (2.08). Hungary has also the sixth position (2.63) in this case with higher confidence than EU average (2.41).

Fig. 4.19a: Students’ confidence in using social media
(grade 8, country and EU level, 2011-12)

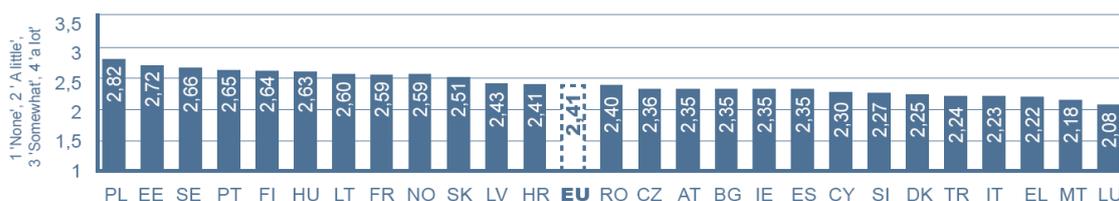


Fig. 5. Students’ confidence in using social media
Source: adapted from European Commission (2013b)

Summarizing all areas, Figure 6 shows the overall confidence of students in their ICT skills by countries. Poland is on the top of the list which is very interesting if we compare the results of the total population (not only students) which shows that almost 60% of total population had “No skills” or “Low skills” in Poland.

Compared with the average of the European Union, Hungary can preserve its better position. If we take a look to the positions of Visegrad countries, it is obvious that Hungary has the second position after Poland and followed by Slovakia and Czech Republic.

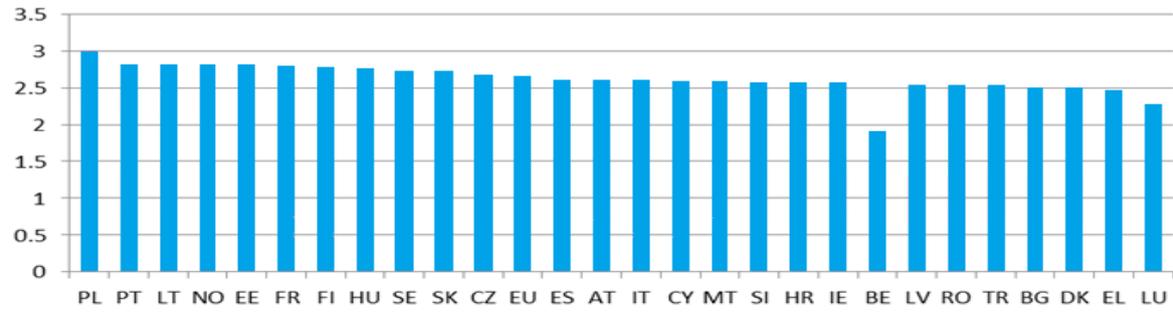


Fig. 6. Students’ confidence in their ICT skills
 (average score based on 4 competence areas; based on 4-point Likert scale)
 Source: adapted from European Commission (2013b)

Hungarian situation

Nowadays social media plays a crucial role in online communication, especially in life of the Generation Y’s or Digital Natives (born after 1981) (Bolton et al., 2013). Results of the online questionnaire performed by the Authors also support the previously mentioned statement. As Figure 6 represents, almost everybody (79 respondents from 82: 96.3%) from the respondents use

social media applications and different community sites regularly. Different news sites are also very popular (68.3%) in order to capture all necessary information in the daily life of participants. The least popular answer was the torrent sites with 17.1%. Figure 8 demonstrates the purpose of the usage of ICT tools. It can be clearly seen, that most of the participants used these ICT tools for communication (97.6%) and for achieving and capturing information (92.7%).

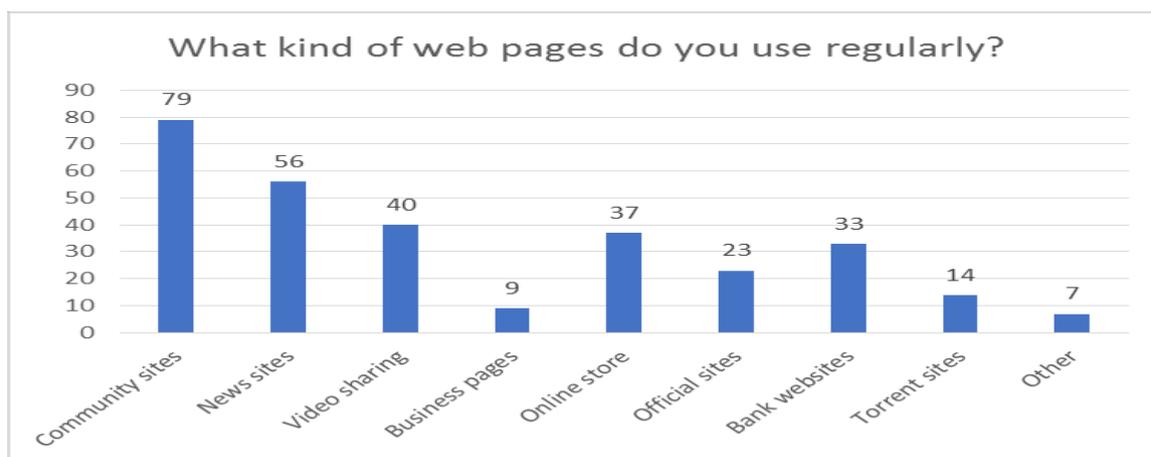


Fig. 7. Types of regularly used websites (number of valid responses, n=82)
Source: Authors' own edition based on survey data

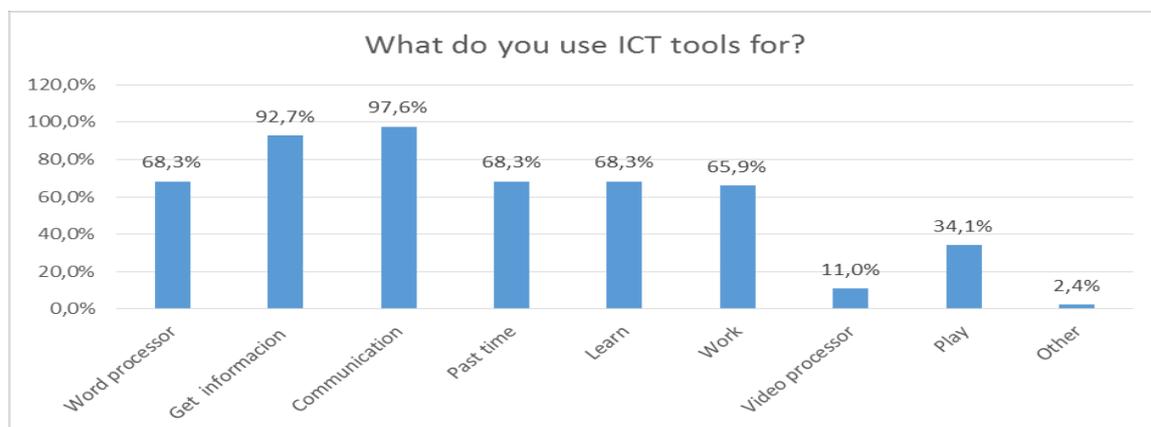


Fig. 8. Purpose of the usage of ICT tools (in % of valid responses)
Source: Authors' own edition based on survey data

Two-thirds of the surveyed teachers use computer and different ICT tools every day, both at school and at home. These ICT tools helps them in their everyday work – such as in preparing for lessons, exploring and learning different literature, operating the network of other colleagues or students. Using different web-based interfaces, they can share their experiences, receive or

provide feedbacks in relation to their teaching activity, get or give information about the successes and failures of applying some teaching methods from or to their colleagues, which will also provide them the opportunity for self-improvement and knowledge transfer. Figure 9 shows the accurate results:

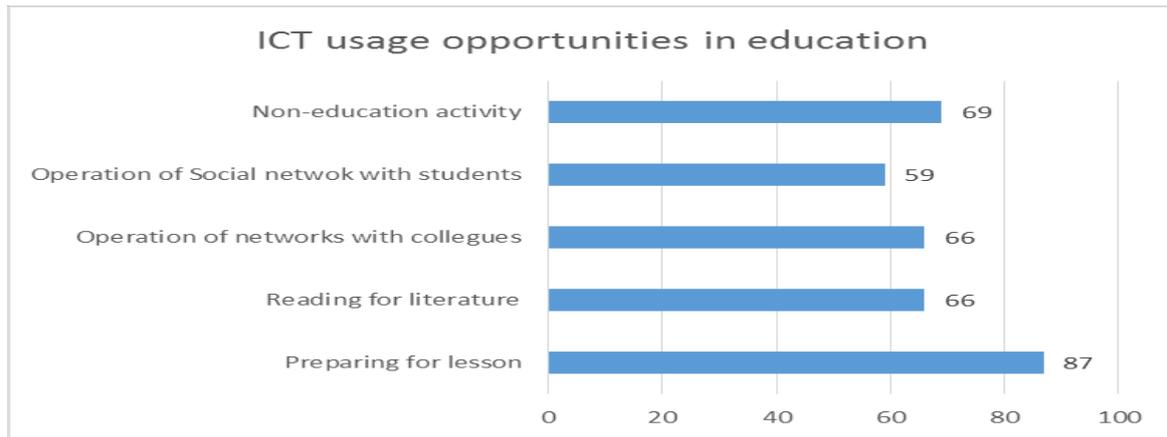


Fig. 9. ICT usage opportunities in education (number of valid responses, n=91)
Source: Authors' own edition based on survey data

Conclusions

Based on the literature the relationships can be easily determined among the knowledge-based economy or knowledge society, the role of digital competences in education and sustainable development. Recently two development processes were observed related to the topic: on one hand the new technology revolution in the 70's that enabled us to talk about "new economy" and knowledge society; on the other hand the concept of sustainability has also been given more attention. Use of different ICT tools can develop and increase the digital competence of the population, therefore, knowledge transfer can become quicker and population can become more conscious – people can easily reach information regardless time and location, they can identify, acquire and share their knowledge which is the base of a knowledge society. In the "new economy", in a knowledge society these tools also could be effectively used in education since basic education is the key to a nation's ability to develop and achieve the reformulated Sustainable Development Goals.

In the present research work results also supported the importance of digital competence as the confident and critical use of different information and communication technology tools. The main findings of the study demonstrated that Hungary has a better position in terms of digital skills (in all competence areas: operational use of ICT, use of social media, responsible use of ICT, safe use of ICT) in comparison with the average of the European Union. Although the Hungarian education system were improved in this area, further developments will be necessary in order to improve the population's digital competence. Although it is obvious that usage of different ICT tools is essential in education in order to make knowledge transfer easier, the inconvenience of the older generation can reduce the efficiency of the new technology in education. Summarizing the results it can be clearly seen that confidence of digital skills are higher in Generation Y and Generation Z, as they have the basic need to use different ICT tools, mobile and online technologies in their everyday life. Teachers are

responsible for development of digital literacy, digital competence, responsible and safe Internet usage and also for acquisition of the virtual space capabilities at the highest level in education. For further research it is planned to do a comparative analysis of digital skills published by European Commission in 2014 and 2017 – how the results were changed by the new regulations and funding sources.

References

- Afgan and Carvalho (2010). Afgan, N. H. and Carvalho, M. G. (2010). The Knowledge Society: A Sustainability Paradigm. *Cadmus*, 1(1), p. 28–41.
- Bolton, R.N., Parasuraman, A., Hoefnagels, A., Kabadayi, S., Gruber, T., Loureiro, Y.K., Migchels, N. and Solnet, D. (2013). Understanding Gen Y and their use of social media: a review and research agenda. *Journal of Service Management*, 24 (3), pp. 245-267.
- Daly, H. E. (1996). *Beyond Growth: The Economics of Sustainable Development*. Boston: Beacon Press.
- European Commission (2013a). *DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe*. Luxembourg: Publications Office of the European Union
- European Commission (2013b). *Survey of Schools: ICT in Education*. Available at: <https://ec.europa.eu/digital-single-market/sites/digital-agenda/files/KK-31-13-401-EN-N.pdf> (revised: 2017 09 10)
- European Commission (2014). *Measuring Digital Skills across the EU: EU wide indicators of Digital Competence*. Available at: <https://ec.europa.eu/digital-single-market/en/news/measuring-digital-skills-across-eu-eu-wide-indicators-digital-competence> (revised: 2017 09 10)
- European Commission (2015). *Here is how we will improve digital skills and create more jobs in Europe*. Available at: <https://ec.europa.eu/digital-single-market/en/blog/here-how-we-will-improve-digital-skills-and-create-more-jobs-europe-0> (revised: 2017 09 10)
- European Commission (2017). *Europe's Digital Progress Report 2017*. Available at: <https://ec.europa.eu/digital-single-market/en/news/europes-digital-progress-report-2017> (revised: 2017 09 10)
- European Parliament and the Council (2006). *Recommendation of the European Parliament and of the Council of 18*

- December 2006 on key competences for lifelong learning. *Official Journal of the European Union*, L394/310
- Evans, M., Dalkir, K. and Bidian, C. (2014). A Holistic View of the Knowledge Life Cycle: The Knowledge Management Cycle (KMC) Model. *The Electronic Journal of Knowledge Management*, 12 (2) p. 85-97.
- Global e-Sustainability Initiative (2017). Summary Report. #SystemTransformation. How digital solutions will drive progress towards the sustainable development goals. Available at: http://systemtransformation-sdg.gesi.org/160608_GeSI_SystemTransformation.pdf (revised: 2017 09 17)
- Kovács, O. (2017). Complexity of industry 4.0 – I. (in Hungarian). *Közgazdasági Szemle*, LXIV. évf. p. 823-851
- Liaqut, A. and Avdic, A. (2015). A Knowledge Management Framework for Sustainable Rural Development: The case of Gilgit-Baltistan, Pakistan. *The Electronic Journal of Knowledge Management*, 13 (2), p.103-165.
- Liebowitz, J. (2000). *Building Organizational Intelligence: A Knowledge Management Primer*. Boca Raton FL: CRC Press
- Magda, R. (2013). Difficulties in sustainability and land utilisation. *Visegrad Journal on Bioeconomy and Sustainable Development*, 2 (1), p. 15-18.
- Mupa, P., Chabaya, R. A. and Chiome, C. (2011). Knowledge management for sustainable growth and development: Implications for higher education. *Zimbabwe International Journal of Open & Distance Learning*, 1 (2), p. 99-106.
- Pongrácz, F. and Nick, G. A. (2017). Innovation – the key of sustainable growth in Hungary (in Hungarian), *Közgazdasági Szemle*, LXIV évf. p. 723-737.
- Quintas, P., Lefrere, P. and Jones, G. (1997). Knowledge Management: a Strategic Agenda. *Long Range Planning*, 30 (3), p. 395-391.
- Rodriguez, K. and Al-Ashaab, A. (2007). Knowledge Web-Based System to Support E-Manufacturing of Injection Moulded Products. *Int Journal of Manufacturing Technology*, 56, p. 125- 140
- Stewart, T. (2002). *The wealth of knowledge: intellectual capital and the twenty-first century organization*. London: Nicholas Brealey
- UN (2010). *Information Economy Report. ICTs, Enterprises and Poverty Alleviation*. UN: New York & Geneva
- UNESCO (2005). *UNESCO and Sustainable Development*. Paris: UNESCO
- UNESCO (2006). *Education for Sustainable Development Toolkit*. Paris: UNESCO's workshop
- WCED (1987). Report of the World Commission on Environment and Development: Our Common Future, p. 43.
- Wiig, K. M. (1993). *Knowledge management foundations: Thinking about thinking: How people and organizations create, represent, and use knowledge*, Arlington, TX: Schema Press.

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Éva Görgényi Hegyes – PhD student, Szent István University, Doctoral School of Management and Business Administration, Field of scientific research: sustainability, health conscious consumer behaviour, social media usage in terms of health awareness, Address: H-2100 Gödöllő, Páter Károly u. 1, Hungary, Tel.: +36 28 522; E-mail: gorgenyieva@gmail.com

Ildikó Csapó – PhD student, Szent István University, Doctoral School of Management and Business Administration, Field of scientific research: management consultancy, human resource management, Address: H-2100 Gödöllő, Páter Károly u. 1, Hungary, Phone. +36 30 525 2358 E-mail csapo.ildiko40@gmail.com

Mária Fekete Farkas, PhD, Habil, Professor, Szent István University, Faculty of Economic and Social Sciences, Institute of Economics, Law and Methodology, Field of scientific research: sustainable development, valuation and management of production factors, focusing on natural resources, Address: H-2100 Gödöllő, Páter Károly u. 1, Hungary, Tel.: +36 20 970 4987; Fax: +36 28 522 912, E-mail: Farkasne.Fekete.Maria@gtk.szie.hu



MAIN MOTIVATION FACTORS OF HUNGARIAN LABOR-MIGRATION IN THE EUROPEAN UNION

Imola Józsa, Sergey A. Vinogradov
Szent István University

Annotation

This paper tries to analyze the motivations of Hungarian labor-migration in 2017 and provides insights into this labor-migration-flow as well. Nowadays the labor-migration is determinative part of the whole labor market of modern economies and it is closely related to the process of globalization. Employees working abroad are parts of globalization processes. The development of employment and these kinds of labor-flows have been effected by the enlargement of the European Union (EU). In the EU member countries the willingness to work has been increased by this labor-flow. Migration and mobility are parts of the incentives of labor market on European level in the EU policy. Formerly if we heard that word: labor-migration, we hardly focused on the flow of emigration; we associated mainly with the process of immigration. But now the discourses about migration focus rather on emigration, than on immigration. It is important to mention that this publication, do not focus those migration flows, which can be seen nowadays towards Europe from Eastern and African countries. The authors do not analyze the reasons and motivations of this „new Exodus” either. The authors of this article do focus mainly on the relevance and importance of Hungarian labor-migration, and its motivations. The authors do not analyze any kind of political aspect of the topic. Being the labor-migration a timely topic, it is worth discussing, because year by year the number of Hungarian foreign employment is increasing. While in Hungary the Hungarian employed population is gradually decreasing. In Hungary, the relevance and importance of migration is highly perceived. That is why these things gradually should have been incorporated in national labor market, educational and other policy plans. Moreover, the tendency of labor-migration is often talked about in media. According to statistical data, there is continuously increasing emigration in this field. Most of the job seekers prefer work to abroad, than in their own country. In globalized labor-market, the labor-migration is considered to be so natural, not only because of that fact that moving is a part of our life, but for some other reasons too.

KEY WORDS: labor-related emigration; mobility; motivations; working abroad; cluster analysis.

Introduction

There is increasing number of migrant workers, who want to implement their plans abroad or to achieve their goals there. A new country may be an opportunity for them to become what they want to be, do what they want to work and then their dreams come true. If they can integrate, they might even feel home in a foreign country.

Hungarians having good or perfect training and qualifications, they can start working in their motherland. It is important to mention, that formerly a certain job is said to fulfill the employees for a long time, at least until the retirement. Nowadays, we can not say this is true. On one hand, it is not only because of the workers having increased demand and desire for new experiences, and hope in their jobs. Although on the other hand, they do not always find the right job. What does it mean the right job? Those jobs, which confirm with their employees' qualifications, experiences and last but not least, the employees get sufficient remuneration.

There are people who are not able to pay bills and increased costs by their domestic wages and revenues. The working poor phenomena is an emerging issue in the EU (Bruder-Obádovics 2012). It is not an easy situation and they have to rethink their life, opportunities, and possibilities.

Working abroad, do not only mean new start, but living and working quite far from the motherland, and leaving home families, in hope of a better paying job.

This research is a part of a larger investigation about international career, Hungarians working abroad.

Purposes

The reasons of labor-migration and motivations of Hungarians working abroad have been changed for the past 10 years. Formerly, the focus was on desire for new adventures of unknown field or learning languages in foreign country. These motivations were considered to be the main driving forces, but nowadays this trend has been taken a new direction.

We can even think that Hungarians migrate abroad hoping for better wages and better living circumstances.

What are the main causes of Hungarian labor-migration: *economic crisis, uncertain situations, difficulties in living conditions, economic constraints, and discomfort due to foreign currency loans, hopeless situation, or debt burden?*

Researches and surveys on increasing labor-migration revealed some new evidences, which modulated significantly the knowledge on labor-migration.

There are many differences amongst destination countries. The labor-migrant population heading to these countries is fragmented. Labor-migration is increasing to new destination countries that is why, the structure of migration will likely transformed to new pattern.

Review of literature

The number of Hungarian migrants abroad and job seekers abroad has been increased since 2007 (Fig. 1). According to Gödri (2015) the influencing factors may be:

- deteriorating economic and labor market processes,
- growing demand for the East Central European labor force in main migration destinations,
- the lack of economic growth, decline in real wages,
- increasing difficulties of young people in entering into domestic labor market, high youth unemployment,
- reforms implemented in higher education system,
- serious financial deprivation, which especially characterize young people.

The enlargement of the EU has had a great influence on the development of employment, on the labor flows, and therefore the willingness to work increases in the EU member countries as well. (Poór 2013)

For some decades Europe has grown into a huge, common market, in which freedom of movement is quite large. The free moving of persons was realized when there were no mass migration movements in the EU. (Scheffer 2016)

Formerly if we heard that expression: migration, we associated mainly the process of the immigration and did not focus the emigration. That process could hardly come to our mind. (Hárs 2008)

The starting point must be in any case that the problem of immigration and integration is not a separate thing. (Scheffer 2016) But nowadays these themes are so

up to date and we have to discuss about it.

Working abroad is part of the labor market in modern economies, and is closely related to the process of globalization. In globalized labor markets, the labor migration is considered to be so natural. The expansion of the capacity of the European countries appreciated in the European Union. (Hárs 2010)

As migration is growing, more and more European countries are forced to negotiate their immigration policy. Those countries like Spain, Italy and Greece have become immigrant countries for the last 10-15 years. (Scheffer 2016)

We can see different work intensities amongst working in the EU member states, but overall, a growing proportion appears. In this process, due to the economic crisis a little slowing down was seen, but it is only temporary. There are countries where the direction of migration flows has been increased. Because of their proximity to Hungary, Austria and Germany are the two most common countries of destination, where the practice of emigration, has essentially unchanged. Employees also direct towards new countries where they can find large variations of jobs. Based on various statistical data sources the share of the Hungarian nationals involved in foreign employment for a shorter or longer period in the EU. According to statistics we can say that the structure of employment is different in some countries. In Austria and in Germany, typically skilled workers are working, while the U.K. labor market attracts more educated labor (European Parliament 2015). It is clear that in these countries, especially in the United Kingdom, there is a major presence of the over-qualified foreign workers.

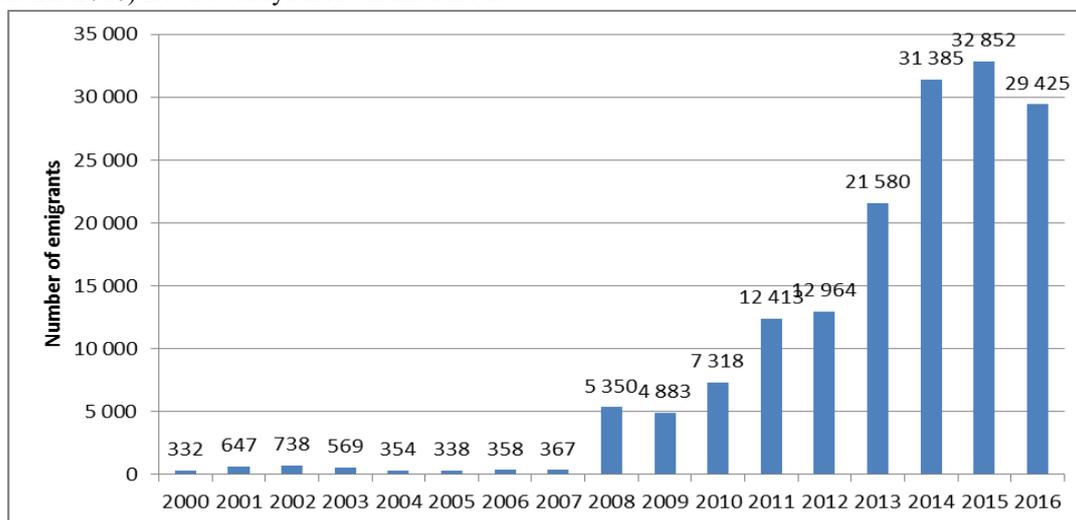


Fig. 1. Number of emigrants from Hungary having Hungarian citizenship, 2000-2016
Source: Eurostat (online data code: migr_emi1ctz)

Hungarians traditionally preferred Germany and Austria as main destination countries for labor emigration and skilled laborer are most likely involved in labor emigration. The more recent magnet countries for labor emigration, mainly the United Kingdom and some other EU countries attract more qualified labor with secondary or higher education. The jobs offered are less qualified; however, over qualification of the migrant labor is

common in these countries. The labor emigrants who employed in Germany are more likely employed for a longer period and become resident in the destination country while those who are employed in Austria or in the United Kingdom and other EU countries are more connected to the home country. They regularly go home to see their family and more frequently return to the home

labor market or commute between the home and the foreign labor markets as well. (Rédei 2007)

That is why, it is important to mention that some flow start to the direction of the parent countries.

Following a shorter or longer period of foreign employment labor migrants return to the national labor market and remarkably share of them is returning as unemployed. Hungarian labor emigration is increasing in a period when mainly return migration is on increase, due to the effects of the crisis. Signs of return migration are evident; return migration is stronger from the new destination countries. Return migration was considerable during the crisis; nevertheless the share of returnees is high on general. The reason is connected to the fact that returnees can hardly find a convenient job and they are unemployed during the transition period while they are looking for a good job at home or return abroad.

This feeling is dual, because you have to cope with the idea that their lives would never be the same again, and with a hopeful look forward to the future, to turn their knowledge into money. If it is not possible to achieve at home, then go abroad. (Hárs 2008)

In the future, the labor migration will play a significant role in the political, social and economic decisions as well. It does not matter at all whether this trend shows how the employees go to work abroad.

We can see the structural unemployment problem in developed societies. There are so many unemployed people, having no adequate qualification for that job or there are less opportunities and specific job offers, which they are not willing to undertake. (Szabó 2006)

The economic reasons (income, unemployment) as relevant factors for migration, are the topics of studies e.g. of Ciarniene and Kumpikaite (2011), Rabe and Taylor (2010), Cattaneo (2008).

However, a great deal of migration is not primarily economically motivated: international movement is also motivated by an expression of more varied tastes and lifestyle choices, the kind of multiple complex motivations and migration trajectories (Chong and Clark 2015, Luthra et al. 2014, Favell 2008, González-Ferrer 2010).

Moving is a part of our life. When we have to make a decision, not only knowing and understanding new things, searching challenges, but our natural curiosity are become driving forces as well. (Hárs 2010)

We know that receiving extra income is quite inviting thing, that is why people can change their location and they are willing to change. However, the international labor migration is not only for searching better wages and jobs, but also can offer new opportunities, economic advance for employees' families too. (Poór-Karoliny 2013)

If the production does not encourage employees to achieve higher level of activity, then they will invest less to their own development of intellectual skills. The real positive test of migration is that people can acquire experiences, skills and transform them to intellectual capital forge in wealthier countries and then they return to an underdeveloped economic environment to use that knowledge. In a well-organized economy the costs and interferences due to the migration, which may be

problem, can be solved more easily than if such policy does not exist. (Rédei 2009)

The generalizations related to international migration cannot be applied universally to everyone. (Sik et al. 2001)

The question is what will be the consequences in the future? What interventions are needed in order to keep the knowledge in Hungary and invite employees back home? It is not always so easy to find a job after working abroad and coming home to Hungary. The accumulated financial resources allow the individuals to find a new job in their home country, waiting for the best job offer. They may try to get a job as a registered unemployed in the hope of finding the right job or they go abroad again.

Analyzed problems and goals

The Eurostat data collections - including the Labor Force Survey (LFS) - do not examine labor-related emigration structures. Therefore, we had to collect data for motivational factors of Hungarian labor-related migration. This study focuses on five hypotheses:

Hypothesis 1: Based on the survey data, the importance of factors influencing labor-related migration decisions can be demonstrated. What are the main reasons for job seekers to decide working abroad? What are their motivations? The summary of useful information obtained via survey analysis. (The H-1 hypothesis is checked by the results of Frequency analysis, Concordance analysis).

Hypothesis 2: Based on factors influencing labor-related emigration decisions, respondents can be classified into relatively homogeneous clusters, thus major motivational profiles can be identified. (The H-2 hypothesis is checked by the results of Cluster analysis).

Hypothesis 3: There are significant differences in migration profiles of different age groups: In group of younger emigrants, there is not only economic motivation but also self-realization as well. (The H-3 hypothesis is checked by the result of the Chi-square test).

Hypothesis 4: There are significant differences in migration profiles of permanent migrants (stayers) and returnees: In the group of stayers, there is prevails an economic motivation but self-realization as well. (The H-4 hypothesis is checked by the result of the Chi-square test).

Hypothesis 5: There are significant differences in willingness to return of different age groups: In group of younger emigrants, there is not only economic motivation but self-realization as well. (The H-5 hypothesis is checked by the result of the Chi-square test).

The sample and methods

The questionnaires have been made via Internet. The group of respondents: Hungarians living and working abroad. The surveying period was between 13 July 2017 and 10 August 2017). The sampling method was snowball sampling strategy.

The sample was 110 respondents. Respondents can give their e-mail address, in case they want to receive the results of the research, but normally the questionnaires have been made anonymously. The sample is large enough in a statistical point of view.

The questionnaires: There are 52 questions: The respondents answered some questions by 6-grade Likert scale (from 1-absolutely disagree to 6-absolutely agree). There were multiple choice options in some questions. As an introduction, there were 3 questions: gender, age (in categories), and qualification.

The database: An Excel database has been created. However, these data had to be „cleaned”, because the responses were not evaluable all times.. There were different forms of the answers given by some of the respondents to that question: In which country do you work? For example there were different forms: U.K., United Kingdom, Britannia, Great Britain and Northern Ireland. These versions can be standardized, as United Kingdom. There were 110 evaluable questionnaires, which could be used for analysis.

The methods: The importance of labor-related emigration factors are based on the average of 6 grades Likert scale. The measure of respondents’ agreement (the consensus study) has been used by *Kendall's coefficient of concordance (W)*.

The main motivational profiles have been identified by the *K-means clustering method*.

In dispersion of migration profiles we have examined possible differences among different age groups, as among permanent migrants (stayers) and returnees by *Chi-square test and adjusted residuals*.

Chi-square test was used to examine possible differences in willingness to return of different age groups.

Results

Output and analysis: Now lets look at the details of the output. Analyze the results obtained, and check the correctness of hypotheses.

Result (H1):

Based on the results of 6-grade Likert scale, the most influential factors of decision of working abroad are better earning opportunities and vision of future. The labor migration had the least impact by experiences in foreign countries and experiences gained during the study period.

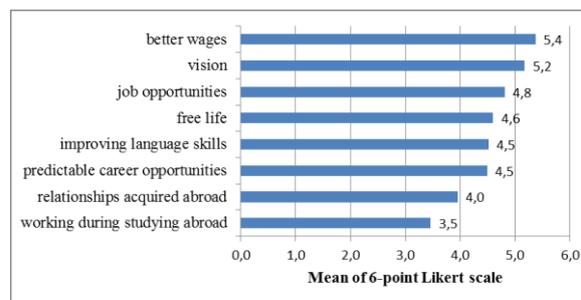


Fig. 2. The importance of labor-related emigration factors based on ratings on 6-grade Likert scale

Source: Authors’ calculations based on survey data (2017)

Based on value of Kendall's coefficient of concordance ($W = 0.242, p < 0.01$), there is a statistically demonstrated agreement among respondents regarding the importance of the labor-related emigration factors.

Result (H2):

Based on K-means clustering results, three migration profiles have been identified (Table 1).

It is interesting that better wages and better livelihood abroad are important factors in all the three clusters, but in Primarily-economically-motivated-emigrants, everyone considered this factor important. In the other two clusters, better wages and better livelihood are considered by 70-70% of respondents as important factors.

Result (H3):

Based on the results of the chi-square test ($p < 0.01$) significant difference has been justified among age groups according to migration profiles (Fig. 3).

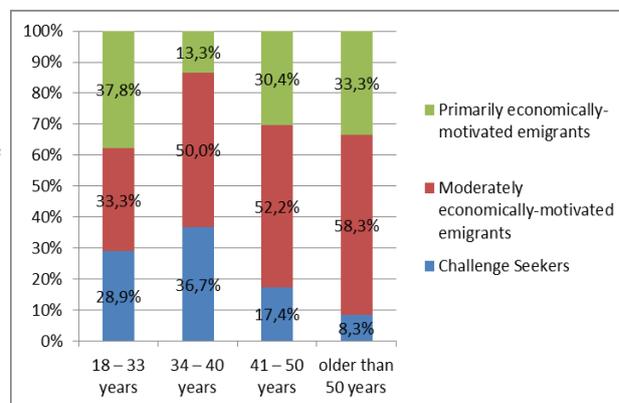


Fig. 3. Percentage of respondents by three migration profiles for four age groups

Source: Authors’ calculations based on survey data (2017)

Based on the adjusted residuals, it can be seen that the proportion of moderately economically-motivated emigrants is significantly lower among the 18-33 year age group. There is significantly lower proportion of challengers in the group older than 50 years.

It is interesting that there is considerably higher proportion of challenge seekers in the 34-40 age group

and there is significantly lower proportion of primarily-economically-motivated-emigrants.

The third Hypothesis has been only partially proven because the „Challenge Seekers” profile, which is based on the results of the investigations and is related to the need for self-realization. It is true in different ratio, and they appeared in four age groups.

Table 1. The cluster averages (centroids) for grouping respondents by their opinions about of motivation factors on decision to labor-migration, using K-means clustering method

Factors	Cluster		
	Challenge Seekers (n=29)	Moderately economically-motivated emigrants (n=49)	Primarily economically-motivated emigrants (n=32)
Learning in foreign university	0.1	0.1	0.2
Learning languages	0.6	0.2	0.4
Family reunification	0.0	0.2	0.1
Marriage	0.0	0.1	0.1
Better earnings, better living abroad	0.7	0.7	1.0
Providing job opportunities abroad	0.5	0.4	0.8
Planning career opportunities and career advancement	0.5	0.1	0.5
Adventurousness	0.8	0.0	0.5
Inevitability in home country	0.1	0.4	1.0
Uncertainty	0.1	0.2	1.0
Hopelessness	0.0	0.1	0.9
Lack of vision in home country	0.2	0.6	1.0
Fear of unemployment	0.1	0.1	0.6
Indebtedness due to loans	0.0	0.1	0.2

Note: The values in the table indicate by clusters how many respondents considered the factor relevant (0 = no one, 1 = everyone)

Source: Authors’ calculations based on survey data (2017)

Result (H4):

Based on the results of the Chi-square test ($p = 0.027$) significant difference has been found among permanent migrants (stayers) and returnees (Fig. 4.). Stayers are significantly more economically motivated.

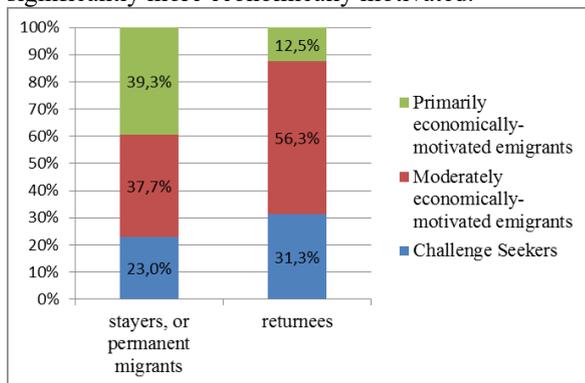


Fig. 4. Percentage of respondents by three migration profiles for stayers and returnees

Source: Authors’ calculations based on survey data (2017)

Result (H5):

Although the result of the Chi-square test ($p = 0.928$) does not suggest significant difference between the age groups according to willingness to return, it can be seen that the proportion of stayers is increasing with age. (Fig. 5.)

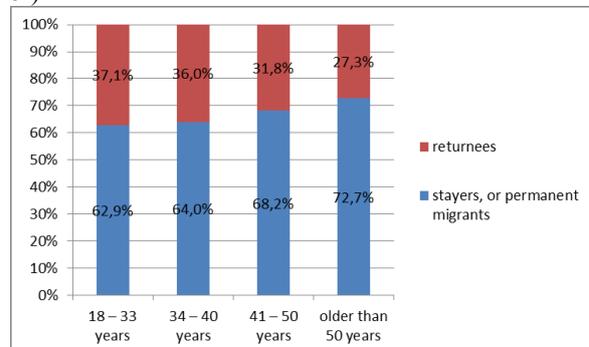


Fig. 5. Percentage of respondents by willingness to return for four age groups

Source: Authors’ calculations based on survey data (2017)

Conclusions

Decisions on moving abroad are preceded by planning and thinking. But in some cases there are individuals who make a sudden decision and start to visit an unknown area. They had already real hope that they can expect more abroad. New atmosphere, the challenges, and the novelty can also act as a motivation for them.

The decision of working abroad is not so easy to take with respect at all. Leaving the own country after a recognition is a step by step process. After that their lives would never be the same again any longer.

After all, the hope of a better quality of life has been the motivation to go away from the environment where they were born. They evaluate their current situation and future prospects, and eventually came to the conclusion that elsewhere they may implement their plans, earn enough money to live a more livable life. If we live in a challenging environment, we also do more to ensure such compliances.

References

- Bruder, E. and Obádovics, Cs. (2012). Working but poor - countries with different path in European integration. *Journal of Economy and Society*, 2012:(1-2.) pp. 88-97.
- Cattaneo, C. (2008). The Determinants of Actual Migration and the Role of Wages and Unemployment in Albania: an Empirical Analysis. *The European Journal of Comparative Economics*, 5(1), 3-32.
- Chong, N.G. and Clark, J.B. (eds.) (2015). *Human Trafficking: A Complex Phenomenon of Globalization and Vulnerability*. Routledge, New York, 144 p.
- Ciarniene, R. and Kumpikaite, V. (2011). International Labour Migration: Students Viewpoint. *Engineering Economics*, 22(5), 527-533.
- European Parliament (2015). *Labour Market Shortages in the European Union*. Study for the Committee on Employment and Social Affairs. 172 p.
- Favell, A. (2008). The new face of East-West migration in Europe. *Journal of Ethnic and Migration Studies*, 34, 701-716.
- González-Ferrer, A. (2010). Explaining the labour performance of immigrant women in Spain: The interplay between family, migration and legal trajectories. *International Journal of Comparative Sociology*, 52, 63-78.
- Gödri, I. (2015). International migration (In Hungary) In Monostori J., Öri P., Spéder Zs. (ed.), *Demográfiai portré 2015*, 240. KSH NKI, Budapest
- Hárs, Á. (2010). *Migration and labor market in Hungary /Migráció és munkaerőpiac Magyarországon/*, In. *Changing Migration Changing Environment /Változó Migráció-Változó Környezet/*, MTA Etnikai- nemzeti Kisebbségkutató Intézete, Budapest
- Hárs, Á. (2008), *Join and disappointment, the Hungarian labor market and migration /Csatlakozás és csatlakozás, a magyar munkaerőpiac és migráció/*, In. Társadalmi Riport, TÁRKI
- Luthra, R., Platt, L. and Salamooska, J. (2014). Migrant Diversity, Migration Motivations and Early Integration: The Case of Poles in Germany, the Netherlands, London and Dublin. *LEQS Paper* (74). 65 p.
- L. Rédei, M. (2009), *A tanulmányi célú mozgás*. REG-INFO Kft., Budapest
- Poór, J. – Karoliny-Mártonné (2013). *Comparative analysis of the evolution of the HR practices of the world's four regions of Central and Eastern Europe in search features /HR gyakorlatok alakulásának összehasonlító vizsgálata a világ négy régiójában, közép- és kelet-európai sajátosságokat keresve/*. Competitio
- Poór, József (2013). *Internationalization and globalization, human resource management, /Nemzetköziesedés és globalizáció az emberi erőforrás menedzsmentben/*, Complex Kiadó, (3rd reviewed Edition), Budapest
- Rabe, B. and Taylor, M.P. (2010). Difference in Opportunities? Wage, Unemployment and House-price Effects on migration. Institute for Social and Economic Research, Working Paper Series, No. 2010-05.
- Rédei, M. (2007). *Mozgásban a világ*. ELTE Eötvös Kiadó, Budapest
- Sik, E. (ed.). (2001). *A migráció szociológiája*. Szociális és Családügyi Minisztérium. Budapest
- Scheffer, P. (2016) *Arrival destination, Europe and the migrants*. Osiris Kiadó, Budapest
- Szabó, A. F. (2006). *A nemzetközi migráció és korunk biztonságpolitikai kihívásai*. Zrínyi Kiadó, Budapest

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Imola Józsa, PhD. Candidate in Doctoral School of Management and Business Administration in Szent István University (Hungary). Her scientific research is about migration, working abroad, motivation, cultural differences, and integration as well. She also examines HR-fields, foreign enterprises settled in Hungary, headquarters and subsidiaries. She has been awarded three degrees: Information Technology (IT) Engineer (BSc) and she has got specialization in Technical Management, as part of this Engineer program.

She has also got another Bachelor's Degree in Communication and Media Sciences (BA) graded Excellent with Honors and a professional qualification of Business Communication Experts.

She has participated in Master's (MSc) Degree program in Management and Leadership, and she has been awarded a Master's Degree graded with Excellent with Honors, and a professional qualification of Economist in Management and Leadership. And she has also got a specialization in Human Management and Organization Development, as a part of a Master's Degree program. Professional experiences: formerly she has been working as an insurance consultant and manager for several years in a MNC of an insurance sector in Hungary. She has been working as Personal Insurance Business Manager, Branch Manager and Business Unit Leader as well. jozsa.imola@gmail.com.

Sergey A. Vinogradov, PhD (in business and management), Associate Professor in Szent István University (Hungary), Faculty of Economic and Social Sciences, Institute of Economics, Law and Methodology. Head of the Department of Methodology for Economic Analysis. He is an author and co-author of more than 100 refereed papers in scientific journals, books, and conference proceedings. Current research interests: social economical statistics, actual problems of sustainable development in EU countries. E-mail: Vinogradov.Szergej@gtk.szie.hu



THE SERVICE QUALITY ASSURANCE IN A TRANSPORT COMPANY

Jurgita Martinkienė, Algirdas Giedraitis

Lithuania Business University of Applied Sciences

Annotation

The article discusses the system of the service quality assurance in a transport company and analyses the system of the service quality assurance, which is based on interaction of the service provider and a consumer. Under conditions of strong competition, transport companies must set high requirements not only for the quality and quantity of the service, but first of all to focus on immediate participants of the work process – the service providers and consumers – and their interaction. The service quality assurance depends on frequency of interaction between the service provider and a consumer, since an interaction on a regular basis between two participants in the market strengthens their mutual relationships. Service companies and consumers interact by collaborating with each other; this process strengthens their relationships and ensures that proper decisions are made in terms of the service quality assurance. In doing so, attraction of new consumers as well as building good relationships between consumers and the company may be enhanced while striving to achieve the goals of both the consumers and the service company. The obtained findings of the research are intended to show how to assure high quality of the services provided by a transport company, their effective management and safety of the service consumers. The conducted qualitative research (51 respondents) in the analysed transport company showed that according to the respondents' opinion, there is a 23,1% share of persistently repeated mistakes during provision of the services in the company. The major reasons for repeated mistakes are lack of training (33%), insufficient motivation of the staff (33%) and lack of information (22%) on the quality of the provided service. While a guarantee of the service quality (43%) is one of the key dimensions ensuring the quality of the services. It is recommended that every transport company should implement its own individual system of the service quality assurance, which would reflect the specific aspects of the provided services. When developing the above mentioned system, particular focus should be made on training and motivation of the staff as well as publicising information on the quality of the provided service.

KEY WORDS: service quality; transport company.

Introduction

Public transport is of critical social importance since it is essential service to the citizens of the country providing a possibility to travel to a workplace, to educational, medical and cultural institutions as well as to other destinations for daily needs. The aim of every company that provides transport services is competitiveness that allows ensuring quality service for a consumer through various methods and means. To this effect, the key characteristics and indicators of the service quality have to be identified that would allow comparing the quality with the quality level of other similar services available in the market. Therefore, the main aim of service providers in the transport company is to continuously ensure the quality of service.

However, service providers not always adequately assess consumers' preferences. Often they simply lack knowledge of what consumers really prefer and what they need or will need. Service providers often are not aware (or are little aware) of weaknesses and strengths of the quality of the organization's services. As Roland T. Rust & Huang Ming-Hui (2012) argue, many CEO of companies mistakenly suppose that increase in productivity and efficiency of services is achieved by reducing labour costs, but higher level of automation not always results in higher quality of services. According to L. Bagdonienė and R. Hopenienė (2009), the main concern is the service quality assurance. The problems of the service quality assurance stem from different combinations of services, forms of service delivery, deadlines, benefits to the provider and consumer and differences in prices. However, the dominant cause of heterogeneity of services lies in interpersonal relationships. Any failure or deviation from the

set requirements (standards) may be unnoticed by the provider at once but is instantly seen by a consumer.

Despite relevance of the issue of the quality of transport services, very little attention has been paid to this problem by researchers. Various authors (Torfing, 2014; Osborne, 2006) agree that in view of growing complexity of problems in the service companies, deeper analysis of the interaction between the service provider and a consumer is needed. Certain issues related with furthering of involvement of more subjects into the process of interaction between the service provider and consumers require further research. Therefore, it is evident that the topic of the transport service quality assurance requires more in-depth research and scientific justification.

The **research and practical problem** addressed by the article is formulated by the question: how to ensure the quality of the provided services in the transport companies?

The subject of the article – the system of the service quality assurance in a transport company.

Methodology of the research. To achieve the objective of the article, analysis and synthesis of scholarly literature were made with the aim to identify the theoretical interrelations of the service quality assurance between service providers and customers.

A quantitative research was conducted in the company that provides transport services. 51 respondents who work in the transport company

participated in the research. On the basis of analysed scholarly literature, a questionnaire was developed and used in the research, the statements of which help to identify shortcomings in the system of the service quality assurance. Data of the research was processed using the methods of quantitative research.

The theoretical framework

According to B. Vengrienė (2006), there is a wide array of concepts of services; they purport different meanings, which encompass the constituent components of service not only as a product but as activity as well. Ch. Grönroos (2001) approach represents the most relevant one to the topic of this article. A service – an action or a series of actions, which being intangible in nature, is manifested as an interaction between a consumer and an employee of the service company, where the latter offers the physical resources, goods or systems to solve consumer’s problems (Grönroos, 2001). Referring to the above, the main object of assurance of quality service is relationship between the provider and a consumer and their mutual interaction. E. Vitkienė (2004) defines quality of service as an integral concept that encompasses the dimensions of service delivery and marketing as well as the technical, technological, functional, process quality and consumer satisfaction dimensions. J. Mikulis (2007) defines quality of service as a difference between the quality expected by a customer and actually experienced one. Most importantly, the service quality is determined by its benefits to consumer (Rosen, 2007). Therefore, it may be maintained that complexity of the concept of service quality stems from the complicated nature of services – their intangibility, concurrency of delivery and consumption moments and an interaction between the provider and a consumer.

It has to be admitted that assurance of provision of quality service is quite a complex phenomenon based on the

synthesis of acknowledged, accepted and individual expectations of a person. Johannsen & Pors (2005) maintain that the quality of service comprises of what services an organization should provide in view of consumers’ expectations and how, in the organization’s opinion, such consumers’ expectations can be met. According to V. Vengrauskas et al. (2010), every company strives for productivity, while buyers – for high quality of service. IT may be maintained that the quality of service for their providers is the key factor for meeting consumer needs that determine satisfaction of consumers with the provided service. The service quality assurance is the entirety of systematic actions, whereby trust in compliance of the service with the quality requirements is to be imparted to consumer. It is important to emphasise that when a consumer uses the same service for a long time, a true perception of the service quality is developed. Acknowledgement of the service quality is not momentous, as objective quality of services may be acknowledged when the same service is used many times.

When paying for the received services, consumers want to receive a service of desired quality; however these expectations are not always justified. Striving for meeting consumers’ desires and needs, such companies extend the packages of services, implement modern technologies. When expectations are not met, consumers perceive unsatisfactory quality, when met – satisfactory or average quality, when expectations are over-met – ideal quality (Bitinas et al. 2010). Therefore, the service quality assurance needs a complex approach which is presented in Table 1.

Table1. Constituent elements of the system of the service quality assurance

FRAME OF THE PROVIDER’S SERVICE QUALITY ASSURANCE REQUIREMENTS	COMMON (OVERLAPPING) FRAME OF THE SERVICE QUALITY ASSURANCE REQUIREMENTS (INTERACTION)	FRAME OF THE CONSUMER’S SERVICE QUALITY ASSURANCE REQUIREMENTS (EXPECTATIONS)
<ul style="list-style-type: none"> To hire only suitable staff and to give them proper training. To standardize the process of provision of services. To monitor customers’ satisfaction, to conduct customers’ opinion surveys and a comparative buying. To employ human capital (of the service staff) and high technologies. 	<p>The dimensions of the service quality assurance:</p> <ul style="list-style-type: none"> reliability; guarantee; aesthetics of the service environment; attentiveness; response to customer’s preferences. 	<ul style="list-style-type: none"> <i>Basic quality</i> – these are the implied requirements that are not stated and considered by a customer as obligatory. Failure to satisfy them will result in customer’s dissatisfaction. <i>Expected quality</i> – the requirements stated by a customer on the basis of which he makes choice of one or another product. This is the area where the main competition takes place. The more the product meets the customer’s requirements, the higher the level of satisfaction. <i>Unexpected quality</i> – the requirements that a customer does not state, but these additional qualities of the product determine customer’s trust in the service.

Source: Vanagas (2009, 2008); P. Kolter & K. L. Keller (2007), J. Mikulis (2007)

The system of the service quality assurance (Table 1) comprises of three components: a frame of the provider’s quality requirements assurance; an overlapping frame of the requirements for the service quality assurance (interaction); a frame of the consumer’s quality requirements assurance (expectations). In principle, the service quality assurance, in any company is equalled to

enhancement (strengthening) of interaction between the provider and a consumer, i.e. it is a common result of the interaction between the provider and a consumer. It is difficult for the service providers to ensure the service quality and to satisfy the increased demand at the same time. The target quality of services is ensured by applying effective management methods and technologies in

accordance with consumer's needs. Having failed to ensure the service quality, a consumer of the service can at any time choose other transport company and such a decision may be to a large extent determined by the established mutual relationships and interaction.

By providing their services, transport companies aim at meeting consumer needs and ensuring high quality of service. The main component of the transport services is equipment (busses). A consumer of the services is an individual, a household or other entity. Services satisfy the needs of individual consumers and their groups. Transportation services are provided in the consumer's location or in the place agreed between the service provider and the consumer. Provision of the services is impossible without continuous participation of the consumer. The service is standardized (a travel by bus) because it is the same for all consumers. Only individual actions of reproduced service and the conditions of the service provision and use may be measured. A service consumer evaluates both the service itself and the entire process of its delivery, i.e. how it was provided. Assessment of the service quality is comparison of its characteristics with the expressed preferences and expectations of the consumer. When expectations of consumers are not met, they show dissatisfaction with the quality. Consumer expresses his opinion and this information is useful for the provider as thereby he can learn what should be changed or improved in future. Measurement results are integrated into indicators of the system of organizational performance. The service provider should communicate with a consumer in an appropriate manner, should be able „to come to an understanding“. These factors are of crucial importance for the transportation service quality assurance.

According to the authors (Grönroos, Voima, 2013), an interaction between the provider and a consumer is self-evident in the process of service provision. However, perishable one since most often a service is provided and consumed at the same time. Such a concept of the interaction between the provider and a consumer requires developing a model for the service quality assurance (Fig. 1), where the interaction is maintained and enhanced. The provider's service has to be delivered according to the consumer's requirements, in line with the service provider's standards and considering the existing situation in the market.

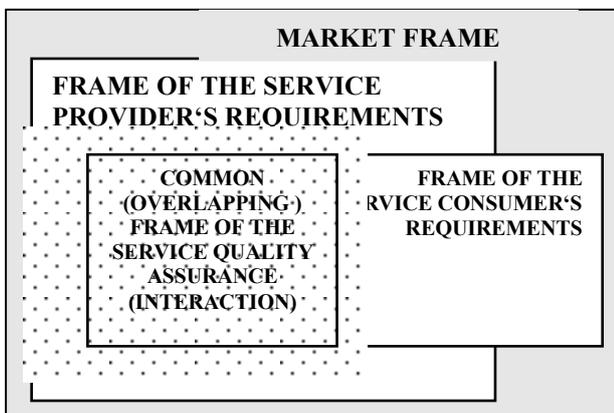


Fig.1. Model of the system of the service quality assurance (interaction)

The model (Fig.1.) shows that functional assurance of the service quality is within the common frame and represents an outcome of the interaction between the service provider and a consumer considering the existing situation in the market. Service is being delivered by means of mutual interaction between the provider and a consumer. The service quality assurance is manifested in a company through the staff knowledge and courtesy, ability to impart trust to consumer. The model encompasses the key principles: *the doctrine of meeting consumer needs; continuous improvement of the service provider in the market.* The quality of services encompasses both individual and organizational level and they are directly related with the service quality assurance. Assurance of the service quality requires synchronisation of the quality requirements of all elements (business subjects). This model ensures continuous improvement of organization's performance in terms of quality management. The concept of the company's service assurance should emphasise implementation of the means for quality improvement, as well as improvement and promotion of quality management methods, building and development of the service quality infrastructure for transportation services.

Methods of the research

To process the data of statistical research, the data processing programme Microsoft Office 365 Excel was used; analysis of the questionnaire results and graphic representation and interpretation of the data were performed.

The obtained research data was processed by SPSS 12.0 (*Statistical Package for Social Sciences*). Reliability of the questionnaire is validated by calculating Cronbach's alpha coefficient. When comparing the groups of variables, the scale is sufficiently reliable when Cronbach's alpha > 0,7; very reliable – when Cronbach's alpha > 0,8. (Vaitkevičius, Saudargienė, 2006).

Cronbach's alpha: all questions – 0,918; in the second group – 0,799; in the third group - 0,834; in the fourth group - 0,885; in the fifth group - 0,870. Therefore it may be maintained that the questionnaire is reliable.

Table 2. Demographics of the respondents

Demographical characteristics of the respondents		Number of respondents (N=51)	Number of respondents (%)
Position	MANAGERS	5	9,80
	SUBORDINATES	46	90,20
Age	< 30	1	1,98
	30-40	11	21,56
	40-50	34	66,66
	>50	5	9,80
Work experience in years	<5	1	1,97
	5 - 10	9	17,65
	10-15	21	41,17
	>15	20	39,21

Having analysed demographics of the respondents, it may be maintained that the research participants included managers who account for almost 10% of the total respondents and most of the respondents fall into the

middle age group (40-50 years old), the major part of which (80,38%) has a very big work experience (10 and > years).

Findings of the research in the service quality assurance in a transport company

The second group of statements is designated to assess the dimensions of the service quality assurance (Fig.2).

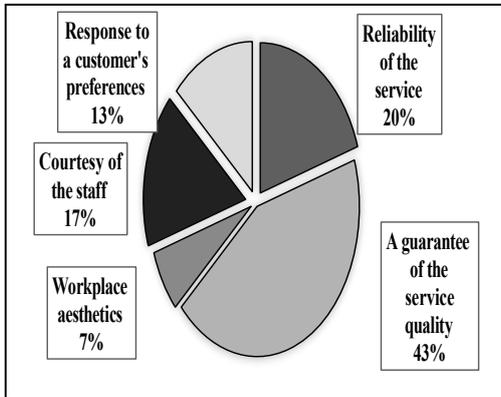


Fig. 2. Dimensions of the service quality assurance (N=51)

Guarantee of the service quality (43%) evaluated by the respondents is one of the most important dimensions of the service quality assurance. In this case a consumer has a reason to believe that such a guarantee is based on the policy, procedures, certification and rules developed within the framework of clearly regulated system. It means that the provided services are given a quality guarantee. Value of the service is created through the process of interaction between the service provider and consumers. In order to be productive, the interaction of participants must be based on mutual trust.

Reliability of the service (20%) evaluated by the respondents shows the provider’s ability to provide the service, which was promised to consumer, in a proper manner. It means that the service provider will deliver the service to the consumer without mistakes, at agreed time and of required quality.

Workplace aesthetics (7%) does not represent a determinant of the service quality assurance because of the specific nature of activities of the employees.

In the third group of statements, an attempt has been made to gather information about frequency of occurrence of the service quality mistakes (Fig.3).

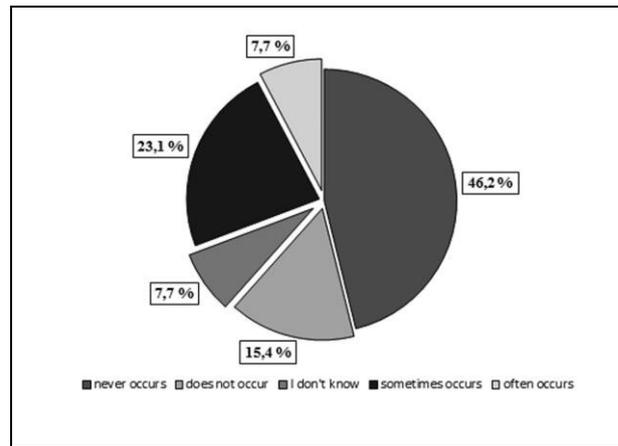


Fig. 3. Frequency of occurrence of the service quality mistakes (N=51)

Rather large number of the respondents (23,1%) state that there is persistent recurrence of mistakes during delivery of the services, although the major part of the respondents (46,2%) maintain that there are no mistakes at all. Referring to these evaluated criteria, it may be argued that the company is not strongly committed to continuous improvement of the service quality.

In order to reduce frequency of occurrence of the service quality mistakes, the company’s employees are recommended to give a feedback form to consumers. This would help to get a feedback with the aim to ensure the quality of services.

The fourth group of statements is designated to identify the causes of substandard quality of services (Fig.4).

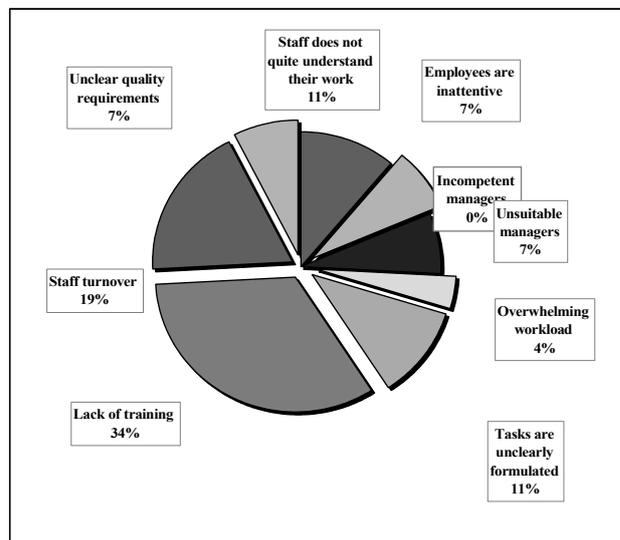


Fig.4. Causes of substandard quality of services (N=51)

Lack of training (33%) was indicated by the respondents as one, the main problem of substandard quality of service. Training process is based on understanding desires, intentions and expectations. In the course of the training process, the way of thinking, behaviour, actions, attitudes, beliefs of the company members are changing, their and the company's knowledge is extended. It is important that the training process should include not only development of skills, but qualitative changes in the individual's mindset as well. Shifts in consumers' needs and changes in the market are considered to be the main stimulus for necessity of training in the company. Training of the staff can help to respond in a fast, creative and effective manner to consumers' needs and to changes in the environment.

As regards the staff turnover (19%), it is an issue in every company and the main focus has to be made on adaptation of employees.

The respondents also state that work load (4%), unclear quality requirements (7%) and managers (7%) do not make much impact on the service quality assurance.

The fifth group of statements aimed at obtaining information on the means of the service quality assurance (Fig. 5.).

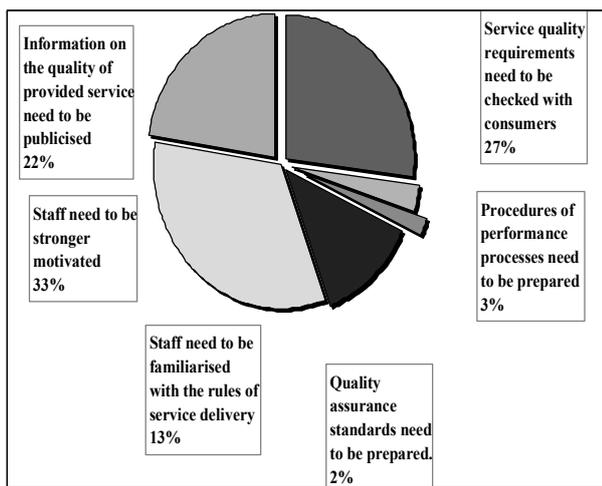


Fig. 5. Means of the service quality assurance (N=51)

More than one third of the respondents (Fig. 5) indicated insufficient motivation of the staff (33%) as the main reason why the service quality assurance is needed. Motivation of the staff is the underlying factor in order employees can work as efficiently as possible and ensure the quality of the service. Having properly motivated an employee, he/she develops personal interest in effective results of work. It is extremely important to identify real objectives for motivation of the staff, to be able to evaluate the employees' needs and to develop (and maintain) appropriate motivation system.

The respondents also note that while using the services provided by the companies, consumers lack information (22%) on performance of the company and the aims of the service quality assurance (and improvement). Consumer expectations are also to a large extent determined by available (positive or negative) information about the company. Proper information ensures prevention of mistakes and facilitates ensuring

safer transportation of customers. By providing information on negative events, analysing them and actively learning from mistakes, the risk for customers may be reduced.

The transport company is to the least extent focused on preparation, implementation and improvement of the procedures (3%) and standards (2%) of performance processes. These documents are thought to be too complicated for the employees, understood only by a few ones and ineffective.

Summarising the research findings, it may be maintained that 23,1% of the respondents state that there are persistently repeated mistakes during provision of the services. The main reasons for repeated mistakes are lack of training (33%), insufficient motivation of the staff (33%) and lack of information (22%) on the quality of the provided service. A guarantee of the service quality (43%) is one of the key dimensions ensuring the quality of the services. Other dimensions, such as workplace aesthetics (7%), workload (4%), quality requirements in a written form (7%), managers (7%), prepared procedures (3%) and standards (2%) of the performance processes do not significantly affect the service quality assurance. Therefore, it may be thought that the transport company functions as a closed system – there is a lack of internal collaboration in the company, external relations are maintained just at minimum level and there is little interaction with consumers. To ensure the quality of transportation service, it is necessary to train and to motivate the staff to work effectively, to have the methods for prompt dissemination of the required basic and expert information, to constantly emphasise the importance of coordination of the transport management structure, to improve the system of service quality control, to develop the common system of monitoring and measuring tools for safety and its assurance actions.

Conclusions

Under conditions of strong competition, transport companies must set high requirements not only for the quality and quantity of the service, but first of all to focus on immediate participants of the work process – the service providers and consumers – and their interaction. The service quality assurance depends on frequency of interaction between the service provider and a consumer, since an interaction on a regular basis between two participants in the market strengthens their mutual relationships. Service companies and consumers interact by collaborating with each other; this process strengthens their relationships and ensures that proper decisions are made in terms of the service quality assurance. In doing so, attraction of new consumers as well as building good relationships between consumers and the company may be enhanced while striving to achieve the goals of both the consumers and the service company.

The conducted qualitative research (51 respondents) in the analysed transport company showed that according to the respondents' opinion, there is a 23,1% share of persistently repeated mistakes during provision of the services in the company. The major reasons for repeated mistakes are lack of training (33%), insufficient motivation of the staff (33%) and lack of information

(22%) on the quality of the provided service. While a guarantee of the service quality (43%) is one of the key dimensions ensuring the quality of the services.

The findings of this research should show how to ensure high quality of services provided by a transport company, effective management of the services and safety of the service consumers. It is recommended that every transport company should implement its own individual system of the service quality assurance, which would reflect the specific aspects of the provided services. When developing the above mentioned system, particular focus should be made on training and motivation of the staff as well as publicising information on the quality of the provided service.

References

- Bagdonienė L., Hopenienė R. (2009). *Paslaugų marketingas ir vadyba*. Kaunas, technologija.
- Bitinas, A., Guogis, A., Migun, L., Važgytė, G. (2010). *Socialinių paslaugų administravimo tobulinimas Lietuvos savivaldybėse: Vilniaus ir Varėnos rajonų atvejų tyrimai*. Socialinis darbas, Nr. 9 (1), 18–26.
- Grönroos, Ch. Voima, P. (2013). *Critical Service Logic: Making Sense of Value Creation and CoCreation*. Journal of the Academy of Marketing Science, 41 (2), 133–150.
- Grönroos, Ch. (2001) *Service management and marketing: a customer relationship management approach*. Chichester: John Wiley & Sons, 394 p. ISBN 0-471-72034-8.
- Johannsen, C. G., Pors, N. O. (2005). *Pokyčių ir kokybės valdymas bibliotekose*. Klaipėda: KU leidykla.
- Kotler, P., Keller, K. L. (2007). *Marketingo valdymo pagrindai*. Klaipėda: Logitema.
- Mikulis, J. (2007). *Pažangūs vadybos principai. Verslas ir ekonomika*. – Ciklonas.
- Rosen, E. D. *Viešojo sektoriaus produktyvumo didinimas: sąvokos ir politika*. – Vilnius: UAB „Knygiai“, 288 p. – ISBN 978-9955-443-33-9
- Rust, Roland T. and Ming-Hui Huang. (2012). *Optimizing Service Productivity*, *Journal of Marketing*, 76 (2), 47-66.
- Torring, J. (2014). *What's in a Name? Grasping New Public Governance as a Political Administrative System*. *International Review of Public Administration*, 18 (2), 9-25.
- Osborne, S. P. (2006). *The New Public Governance?* *Public Management Review* 8 (3), 377-387.
- Vaitkevičius R., Saudargienė A. (2006). *Statistika su SPSS psichologiniuose tyrimuose: statistika socialiniuose moksluose*. Kaunas: VDU leidykla.
- Vitkienė, E. (2004). *Paslaugų marketingas*. Klaipėda: KU leidykla.
- Vengrauskas, V., Vengrienė, B., Kučinskienė, M., Kindurys, V., Mackevičius, V., Žemgulenė, J., Jatuliavičienė, G., Kazlauskienė, E., Vasiliauskaitė, K., Fominienė, A. (2010). *Paslaugų verslas integruotoje rinkoje: permainos ir tendencijos*. Vilnius: VU leidykla.
- Vengrienė, B. (2006). *Paslaugų vadyba*. Vilnius: VU leidykla.
- Vanagas, R. (2008). *Naujosios viešosios vadybos diegimas Lietuvos Respublikos vietos savivaldos sistemoje* (Daktaro disertacija, MRU).
- Vanagas, R. (2009). *LR viešojo sektoriaus tarnautojų verbavimo ir atrankos sistemos tobulinimas*. *Ekonomika ir vadyba: aktualijos ir perspektyvos*, Nr. 2 (15), p. 318–327.

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Jurgita Martinkienė. Doctoral degree in Social sciences, Lithuania Business University of Applied Sciences, Head of the Management Department, Head of the Science and Applied Research Division. Research Interests: application of managerial competencies in business companies. Turgaus Street 21, Klaipėda, tel. 8-46 311099, Email: jurgita.martinkiene@ltvk.lt

Algirdas Giedraitis. Doctoral degree in Social sciences, Klaipėda University, associated professor of the Management Department. Research Interests: crisis management, ergonomics of management, production management, personnel management. Email: algirdas.giedraitis@gmail.com



THE INFLUENCE OF LEADERSHIP STYLES ON EMPLOYEE'S PERFORMANCE

Liridon Veliu¹, Mimoza Manxhari², Visar Demiri³, Liridon Jahaj⁴

¹University of Prishtina "Hasan Prishtina", Faculty of Economics, ²University of Tirana, Faculty of Economics

³Marketing Manager – TechKosova, ⁴Financial Manager – alfa.i

Annotation

The Leadership style is the most prevalent factors that influence employees' attitudes and behaviors including organizational commitment. Organizations need employees who are committed in their work so that they can contribute to the survival of the organization in the marketplace competition. The emphasis is on how managers in organizations can get effective leadership style to achieve set goals. The study has examined the leadership style and their effect on employee performance.

The purpose of this study is to understand the effect of different leadership styles on employee performance in an organization. This paper is intended to identify which leadership style achieves positive influence on employee's performance. The population of the study were the private enterprise manager (Medium and Large sized enterprise) in Kosovo. Data collection was made through questionnaires, and the constructs used were adapted from prior research and already tested for reliability. For the study we used a structured questionnaires' and the data analyses were made through statistical package for social sciences. Finally analysis will be made to identify which leadership style achieves best in terms of employee's performance.

Key words: manager; leadership style; employee performance; organization.

JEL classification: M12; M19; P47

Introduction

The concept and definition of leadership style may differ from one person, or situation, to the other. The word "leadership" has been used in various aspects of human endeavour such as politics, businesses, academics, social works, etc. Previous views about leadership show it as personal ability. Messick and Kramer (2004) argued that the degree to which the individual exhibits leadership traits depends not only on his characteristics and personal abilities, but also on the characteristics of the situation and environment in which he finds himself.

In business, there appear to be as many ways to lead organizations as there are leaders. The most successful leaders have integrity, they inspire people with a shared vision of the future, they set clear goals and motivate people towards them, they manage delivery, and they communicate well with their teams. However, leadership is not "one size fits all" thing, and styles vary significantly among the successful leaders. Leadership has a direct impact on effective employee engagement. This matters because engaged employees give a business its competitive edge. Levels of employee engagement can correlate with performance and even more significantly, there is evidence that improving engagement correlates with improving performance. Leadership style in an organization is one of the factors that play significant role in enhancing or retarding the interest and commitment of the individuals in the organization. Thus, Glantz (2002) emphasizes the need for a manager to find his leadership style. The concept of leadership encompasses a wide range of different interpretations regarding the characteristics of the leader, his behaviour, and his impact

on employees and their activities. Leaders are categorized by different criteria and one of them is the style of leadership. Leadership is the ability to increase a group toward the get the vision or set of goals. It is one of the managerial Qualities of the company or the organization which interaction with the workers of the organization and has a large impact on the turnover rate of the organization. Leadership is the very big toll or the weapon of the organization to accomplish its goals and its necessary objectives and without it, it is impracticable for the organization to attain its main target. Without the leadership the implementation of tasks and their achievements are impossible (Quinn Mills, 2005). The concept of leadership has generated lively interest, debate and occasional confusion as management thought has evolved. The concept and definition of leadership and style may differ from one person, or situation, to the other. Leadership is a key component of all organizations (Punnett, 2004). Organizations are set up to achieve some set goals. In order achieve these goals and objectives; the human factor is of utmost importance. Top on the human factor list is the leader. A leader influences organizational members to contribute efforts willingly towards the accomplishment of pre-determined goals and objectives. Thus, leadership is first and foremost the ability to influence people to perform tasks.

According to Lee and Chuang (2009), the excellent manager not only inspires subordinates potential to enhance efficiency but also meets their requirements in the process of achieving organizational goals. Thus, in the "New Leadership" approach, leaders are seen as managers of meaning, rather than in terms of simply an influence process. However, over the last few years –

arguably fuelled by increased fanaticism, the rapid changes in the global world such as rapidly-evolving technologies, and political and social factors have also called for the development of effective leadership skills (Cacioppe, 1998). Leadership is considered crucial for success, and some researchers have argued that it is the most critical ingredient (Lussier and Achua, 2009). According to Hicks and Gullet (1975), a leader is anyone who directs and controls a group of people to achieve a set purpose.

Leadership styles have significant effects not only in small businesses but also in the world's largest corporations. These styles affect everyone from senior management to the newest intern. They create the corporate culture that influences the organization and its performance. An effective leader influences followers in a desired manner to achieve desired goals. Different leadership styles may affect organizational effectiveness or performance. Literatures have stated that the key elements for a successful organization are leadership style and competency (J. Rodney Turner and Ralf Muller, 2005). Leadership style is the most prevalent factors that influence employees' attitudes and behaviours including organizational commitment. Leaders have adopted various styles when they lead others in the organization (Brown, 2003; Cheong, 2008; Chiang & Wang, 2012; Clark, Hartline, & Jones, 2009; Cox, 2001). Some are using democratic, people or relationship centred approach and others prefer autocratic, production centred method in order to achieve a similar goal, which is organizational effectiveness. Leadership is very important in order to manage and control employees and organizations. The suitability of leadership styles to be used in an organization is based on the sector of business in which they are operating. An effective leader is someone who knows how to inspire and relate to subordinates, knows how to increase the employees' motivation and make employees loyal to the organization.

In today's dynamic global working environment there is growing evidence to suggest that organizations are now recognizing the impact leadership styles has on both employee wellbeing and organizational outcomes (Avolio, Walumbwa & Weber, 2009; McCarthy, Almeida & Ahrens, 2011; Muchiri, 2011, Muchiri, Cooksey, Di Milia & Walumbwa, 2011).

This paper focuses on Leadership styles and how styles of leadership can influence on the employee performance. The nature of the interdependent relationship between leadership styles and employee performance cannot be ignored or underestimated.

Research Purpose

This study investigated the main effects of leadership styles on employee performance at Business Organizations in Kosovo. It specifically sought to determine the impact of autocratic; bureaucratic; charismatic; democratic; laissez-faire; transformational and transactional leadership styles on employee performance at Business Organizations in Kosovo.

Research Questions

The following research questions were used to guide the study:

What is the effect of the: a) autocratic; b) bureaucratic; c) charismatic; d) democratic; e) laissez-faire; f) transformational and g) transactional leadership styles on employee performance at Business Organizations in Kosovo?

Scope of the Study

The scope of this study extended to top, middle and low managers in 50 private enterprises (Medium and Large) in Kosovo.

Literature Review Leadership

The topic of leadership has been of interest for many hundreds of years for scholars and many scientists have tried to make a definition of leadership. Leadership is a social phenomenon that is found everywhere. For human being myths and legends always became attractive about what differentiate great leaders' from followers (Hartog and Koopman, 2011). Leadership is an interpersonal process through which one person is able to influence the activities of individuals or groups (i.e., the followers) towards the attainment of given objectives within a particular situation by means of communication (Covey, 2007; Mullins, 1999). The concept of leadership has generated lively interest, debate and occasional confusion as management thought has evolved. Even today, it is not easy to define leadership, and given the complexity of the subject, there is no general consensus about delimitation of the field of analysis. According to Bass (1999), definition of leadership is related to the purpose associated with the attempt to define it, and so presents a wide range of possibilities. Leadership can be seen as a group process, an attribute of personality, the art of inducing complaisance, an exercise of influence, a particular type of action or behaviour, a form of persuasion, a power relationship, an instrument to achieve goals, the result of an interaction, a differentiated role or initiation of a structure (Bass, 2000). Leadership is one with the most dynamic effects during individual and organizational interaction. In other words, ability of management to execute "collaborated effort" depends on leadership capability. Lee and Chuang (2009), explain that the excellent leader not only inspires subordinate's potential to enhance efficiency but also meets their requirements in the process of achieving organizational goals. Stogdill (1957), defined leadership as the individual behaviour to guide a group to achieve the common target. Leadership is an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes (Rost, 1993). Influencing is the process of leader communicating ideas, gaining acceptance of the motivating followers to support and implement the ideas through change (Lussier and Achua, 2009). Griffin (2012) defines leadership as a process that focuses on shaping or influencing people to obtain organizational goals. Hitt, Black & Porter (2009) define

organizational leadership as an interpersonal process that involves attempting to influence other people to attain a goal. As so many different definitions of leadership forming from different perspectives, Yukl (2010) summarizes that leadership is commonly understood as a process of using influence and motivation to encourage participation in achieving group. Leaders now don't rely upon their legitimate power to persuade individuals to do as they are told but they take an interest in an interaction with their subordinates or they raise and widen the interest of their subordinates (Northouse, 2007).

Leadership Styles

The role of leaders in today's organizations has changed and the success of any organization relies on the leadership styles practiced by the leaders. According to Mintzberg (2010) true leaders engage others with their consideration and modesty because they involve themselves in what they are actually doing not for individual gains. Mullins (2000) defined leadership style as "the way in which the functions of leadership are carried out and the manner that a manager chooses to behave towards employee". Leadership style is a form of cross situational behavioural consistency. It refers to the manner in which a leader interacts with his or her subordinates. Leadership styles are the approaches used to motivate followers. Leadership styles should be selected and adapted to fit organizations, situations, groups, and individuals. It is thus useful to possess a thorough understanding of the different styles as such knowledge increases the tools available to lead effectively. While many leadership styles, attributes, traits and philosophies account for the extensive literature surrounding leadership (House et al., 2004; Howell and Costley, 2006; Javidan et al., 2006; Jogulu and Wood, 2006; Jogulu and Wood, 2007; Jogulu and Wood, 2008b; Judge and Piccolo, 2004; Kennedy, 2002; Mandell, 2003; Eagly et al., 2003; Carless, 1998; Hofstede, 1980).

The terminology style is roughly equivalent to the leader's behaviour. It is the way in which the leader influences the followers (Luthans, 1977). Leadership styles have evolved to become more democratic (Biddle, 2005; Johnson, 1995). Leadership style is viewed as the combination of traits, characteristics, skills and behaviours that leaders use when interacting with their subordinates (Marturano & Gosling, 2008; Jeremy et al., 2011). Tannenbaum and Schmidt (1958) also identify four different types of leaders which have been most widely accepted and used. These leadership styles, which centre around Mc Gregor's Theory 'X and Y' assumptions, are democratic, autocratic, dictatorial, and laissez faire leadership styles. The styles of leadership include bureaucratic, laissez-faire, charismatic, democratic, transactional and transformational (Mohammed and Hossein, 2006). The transactional and transformational leadership styles are the current leadership organisational styles. According to Rees and French (2013), the two leadership styles are associated with a society that no longer accepts the use of authority as a form of command.

An understanding of various leadership styles will let the researcher make the very best recommendation for the

case company. Like leadership theories, there are also several leadership styles that have been practiced. Below are the listed styles of leadership:

Autocratic - Adebakin and Gbadamosi (1996) described an autocratic leader as one who is very conscious of his position and has little trust or faith in the subordinates, he feels that pay is a just reward for work and it is only the reward that can motivate. Authors such as Muczyk and Reimann 1987; Yukl 1989; Bass 1981 agreed that autocratic leadership style is task oriented, is more convincing and manipulator being efficient to communicate a clear vision and conceive strategic objectives (Clark R., Hartline M., Jones K. 2009). Most followers of autocratic leaders can be described as biding their time, waiting for the inevitable failure this leadership produces and the removal of the leader that follows (Michael, 2010).

Bureaucratic - is also useful in organizations where employees do routine tasks (Shaefer, 2005). The drawback of this type of leadership is that it is ineffective in teams and organizations that rely on flexibility, creativity, or innovation (Santrock, 2007). This style of leadership follows a close set of standards. Everything is done in an exact, specific way to ensure safety and/or accuracy.

Charismatic - is a leadership style that is identifiable but may be perceived with less tangibility than other leadership styles (Bell, 2013). A charismatic leader is one who provides an environment full of energy and positive reinforcement. Charismatic leaders inspire others and encourage them to be their best. Employees and group members want to impress a charismatic leader, so they work hard and strive to succeed.

Democratic - is used when group participation is involved (Parker, 2003). Managers involve their subordinates in the decision process taking into account their positive or negative opinions. Due to this, employees become more loyal and dedicated (Clark R., Hartline M., Jones K. 2009). Mullins (2005) described participative leadership as consulting with subordinates and the evaluation of their opinions and suggestions before the manager makes the decision.

Laissez-Faire - is that style of leadership where the authority and power is given to employees to determine the goals; the manager provides little or no direction to employees (Richard and Robert, 2009). Sometimes considered as no leadership (Aydin et al., 2013; Bass, 1990; Lam & O'Higgins, 2011) or destructive leadership (Skogstad, Einarsen, Torsheim, Aasland, & Hetland 2007). Simply stated, with laissez-faire leadership there is no interface between the leaders and followers. Such leaders avoid responsibilities, do not take care of the needs of the followers, do not provide feedback, and delay decision-making (Bass & Riggio, 2006). Laissez-faire leadership may be the best or the worst of leadership styles (Goodnight, 2011). Laissez-faire leaders usually allow their subordinate the power to make decisions about their work (Chaudhry & Javed, 2012). This type of leadership can also occur when managers do not have sufficient control over their staff (Ololube, 2013).

Transformational - is a leadership approach defined as "leader behaviours that transform and inspire followers to perform beyond expectations while transcending self-

interest for the good of the organization” (Avolio et al., 2009). Transformational leaders are suggested to promote intellectual development, confidence, team spirit and enthusiasm among the followers, thereby encouraging followers to be more focused on collective wellbeing and achieving organizational goals (Aydin, Sarier, & Uysal, 2013; Cho & Dansereau, 2010). Transformational leadership has been chosen due to its innovative as well as productive and supportive nature (Bushra et al. 2011). Employees can easily share their knowledge among them when organization used transformational leadership style (Behery, 2008). Chu and Lai (2011) revealed that transformational leaders are those who brought change and innovation and cultivate staff in the organization.

Transactional - is based on the exchange of rewards contingent on performance (Avolio et al., 2009). Transactional leadership in its extreme form may be considered as an autocratic leadership style when a leader has a lot of power over their followers with regards to making staff inputting to management decisions (Lyons & Schneider 2009). This style of leadership focuses on close monitoring, in detecting mistakes and errors and putting in place corrective actions to solve those (Timothy et al, 2011). The transactional leadership strictly follows the bee line, prefer to remains in a stipulated framework for the maximum employees performance (Shah & Kamal, 2015).

Employee performance

Previous studies have indicated that organizational leadership exerts effects on employees’ attitudes and behaviour through empowering employees (e.g., Behling & McFillen, 1996; Bass, 1999, Epitropaki & Martin, 2005). Performance is a relative concept defined in terms of some referent employing a complex set of time-based measurements of generating future results (Corvellec, 1995). Performance is important to us as people and as organisations. Often performance is identified or equated with effectiveness and efficiency (Neely, Gregory and Platts, 1995). As the performance of an organisation is dependent on the quality of the workforce at all levels of the organisation (Temple, 2002), it is essential to discuss the concept of individual performance. According to Hakala (2008), Performance measurement is an on-going activity for all managers and their subordinates, the measurement and its indicators are: Quantity; Quality; Timeliness; Cost-Effectiveness.

Leadership styles and employee performance

A good leader understands the importance of employees in achieving the goals of the organisation, and that motivating the employees is of paramount importance in achieving these goals. Different leadership styles bring about different consequences, which have direct or indirect impact on the attitude and behaviours of the employees.

Leadership is associated with employee performance (Ogbonna & Harris 2000). The relationship between Leadership and performance is established considerable attention (Gadot, 2006). The effectiveness of any set of people is largely dependent on the quality of its

leadership – effective leader behaviour facilitates the attainment of the follower’s desires, which then results in effective performance (Fiedler and House, 1988; Maritz, 1995; Ristow, et al., 1999). Leadership is the most investigated organisational variable that has a potential impact on employee performance (Cummings and Schwab, 1973). Kirkpatrick and Locke (1996) identified over 35 studies reporting positive relationships between leadership and performance. Leadership has a positive influence towards employee performance (Shahab and Nisa, 2014) and therefore play important roles to ensure the increase of organisation and individual performance (Gul et al, 2012). Performance, explained as the accomplishment, execution, carrying out, working out of anything ordered or undertaken (Armstrong, 2010), is greatly influenced by leadership style (Walumbwa et al. 2011). Recent leadership studies have continued to affirm the positive relationship between transformational leadership and performance at various levels (e.g., Dum Dum et al. 2002; Dvir et al. 2002; Howell et al. 2005). On the other hand, transactional leadership is found to enhance the job satisfaction and organizational identification as compared to transformational leadership (Epitropaki & Martin, 2005; LePine, Zhang, Crawford, & Rich, 2015). Preliminary research undertaken by Booyesen and Van Wyk (1994, in Swanepoel, et al., 2000) in a South African context found that outstanding leaders, in terms of effectiveness, are perceived to show a strong and direct, but democratic and participative leadership style, and are seen as agents of change and visionaries who increase organisational performance. Phillips and Gully (2012) suggested that at its best, leadership inspires and motivates employees to work hard towards organisational objectives and help the organisation succeed.

Conceptual Framework

The following Conceptual framework was developed after review of existing literature to investigate the research questions at hand. The framework shows Leadership styles (autocratic; bureaucratic; charismatic; democratic; laissez-faire; transformational and transactional) as the independent variables used to explain employee performance as the dependent variable.

The research model is illustrated below:

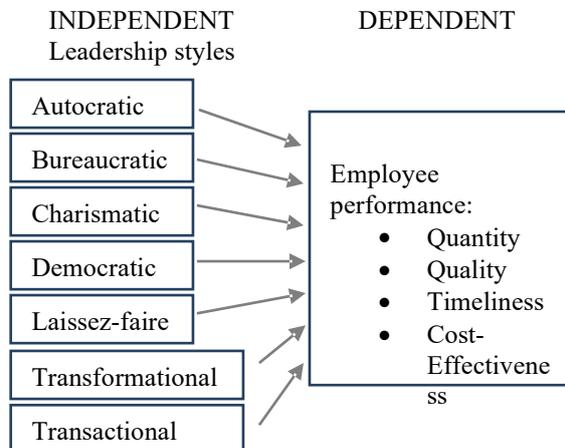


Fig. 1. Research Model showing the influence of Leadership Styles on employee performance

Model Specification

$$EP = \beta_0 + \beta_1 ALS + \beta_2 BLS + \beta_3 CHLS + \beta_4 DLS + \beta_5 LFLS + \beta_6 TFLS + \beta_7 TALS + \varepsilon \quad (1)$$

β_0 - is the constant term and

$\beta_1 - \beta_7$ - is the coefficient of the Leadership Styles; this means that if β_0 coefficient is negative, the predictor or independent variable affects dependent variable negatively,

ε - is the error term. EP measures employee performance, ALS measure autocratic leadership style, BLS measure bureaucratic leadership style, CHLS measure charismatic leadership style, DLS measure democratic leadership style, LFLS measure laissez-faire leadership style, TFLS measure transformational leadership style and TALS measure transactional leadership style

Methodology

The major objective of this study was to identify relationship (influence) between leadership style and employee's performance. To conduct the study it is essential to plan and formulate appropriate study area and period, research design, research methodology includes sampling design, target population, source of data, data collection instrument, data analysis, ethical consideration and reliability and validity test were incorporated.

The research strategy is based on quantitative research. According to Babbie (2010), quantitative research can be described as involving a collection of numerical data and as presenting a view of the relationship between theory and research as a deductive and objectivist conception of social reality, with a preference for a mutual science approach.

An advantage of using quantitative methods is the examination of variables, and the ability to generalize sample results to a larger sample or population (Chintaman, 2014).

Research Instrument and Measures

Research instrument is a kind of measuring instrument use for our research.

This study combined the Leadership Styles Questionnaire of Northouse (2011), Wang et al. (2010), Laohavichien et al. (2009), Spreitzer et al. (2005), Avolio & Bass (2004), and Viator (2001). Leadership behaviour was divided by its frequency performance into 5 levels, including "never", "little", "occasionally", "often" and "always" as scored by Liker's five-point scoring. Leadership style had been tested with the Leadership Styles Questionnaire (Northouse, 2011), (Wang et al. 2010) and (Avolio & Bass 2004). While the performance of the employee who serves as a dependent variable, measured by indicators: quality, quantity, timeliness and

cost effectiveness, Iqbal et al. (2015), Bodla and Nawaz (2010), Dvir et al. (2002), Bernardin and Russel (1995).

The questionnaire contains 58 items, with a five point Likers scale, which determined the score of participants related to the styles of leadership - autocratic, bureaucratic, charismatic, democratic, laissez-faire, transformational and transactional.

The questionnaire was designed to get relevant information from the respondents.

The primary instrument used for the collection of data for this study is the questionnaire. The questionnaire were designed in closed ended patterns and administered via e-mail on the managers of business organizations. The on-line questionnaire was adopted as the technique for data collection due to its advantages of low cost and high speed in sending and returning information (Stacks, 2010).

Target Population and Sample

According to Sekaran (2003), population refers to the group of people that a researcher wants to investigate. Wellman and Kruger (2003), the target population is a number of possible respondents that could be included in the research study. Therefore, results drawn from the sample of the population can be used for generalization of results. The target population for this study included all managers' ranging from low to top level. The study was conducted among 150 Managers of 50 private enterprises (Medium and Large) in Kosovo, distinguishing between medium companies that employ from 50 to 250 staff and large-sized companies that number of employ is great than to 250 employees. The sample was drawn on 150 managers from 50 private enterprises Company's. While 150 questionnaires only 110 of them met the conditions for analysis. A convenient sampling technique was used to select the managers. This was based on the manager's readiness to participate in the study.

Data Analysis

After the data collection, data was analysed by using statistical package of social sciences (SPSS). The raw data was edited to ensure that it was free of errors. Editing was also necessary to allow for easy capturing into the SPSS package. Each questionnaire was evaluated and counted to ensure that all required fields were properly answered by the respondents. Questionnaires were also recounted to verify that the minimum sample size was achieved for the given population. Various analyses were performed from the captured data.

By design, the findings from this quantitative has used to correlation and multiple regression techniques study answered the research questions using the questionnaire to elicit responses from the participants and provide data for analysis of the results. I analysed the data from the two instruments and the demographic questions. The data represented the values for the independent variables and dependent variables. The correlation test is used to check the relationship. The standard regression ANOVA/F-test was used to test the significance of the linear models. The significance of the independent variables partial slope parameters were ascertained using the standard/relevant t-

tests. The reliability of the data was assessed using Cronbach alpha reliability coefficient.

Reliability and Validity

To ensure the reliability and the consistency of the data for the study, reliability test was carried out on the data received from the 110 responses. Measuring the reliability of the scale, the reliability coefficients (Cronbach's) of the autocratic, bureaucratic, charismatic, democratic, laissez-faire, transformational and the transactional leadership styles were 0.711, 0.708, 0.793, 0.790, 0.804, 0.826 and 0.731 respectively. The Cronbach's alphas for the scales of employee performance are at an acceptable level of reliability, averaging 0.841. The scales used are therefore considered reliable and valid for this research study. The scales used in this research have been tested and used in other research studies.

Ethical Considerations

Ethical research involves protecting participants from harm that might result from activities and findings associated with the research project (Warrell & Jacobsen, 2014). Respondents were given the choice to either participate in the study or not, and they reserved the right to withdraw from the study at any time they wished to do so. Respondents were also assured that responses would be treated with confidentiality and participants would remain anonymous throughout the research process. The questionnaires administered did not carry names to adhere to confidentiality.

Research Findings and Discussion

Findings shows that from all the managers participated in this survey, 76% were males, 55% were between (36 – 45) years old, 63% were master degree educated, 46% were between (7 – 10) years' experience, 65% were in the lower level category that is the first line managers and 89% were medium enterprises (see Table 1).

Table 1. Demographic profile of participants (n=110)

Variable	Frequency	Percentage
Gender	Female	24
	Male	76
Age	less than 25 years	5
	26 - 35	20
	36 - 45	55
	46 years and above	19
Education	Bachelor	34
	Master	63
	PhD	4
Experience	less than 3 years	4
	3 - 6	29
	7 - 10	46
	11 years or more	21
Management Level	First	65
	Middle	27
	Top	8
Size-enterprises	Medium	89
	Large	11

The results of independent sample t-test for dependent variable are summarized in Table 2.

Table 2. Independent sample t-test

t-test for Equality of Means						
T	Df	Sig	Mean	Std. Error	95% Confidence Interval of the Difference	
		(2-tail ed)	Differ ence	Differ ence	Lo wer	Up per
Empl yee Perfor mance	- 21. 07	59. 04	.00 0	-70.62 3.24	- 77. 34	- 64. 45

According to the table 2, there is a significant difference ($p > 0.05$) between the employees performance and leadership styles.

Table 3. Regression result Leadership Styles and Employee performance

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>	<i>Durbin-Watson</i>
1.	0.569 ^a	0.325	0.278	0.28116	1.769

Source: own processing

^aPredictors: (Constant), autocratic, bureaucratic, charismatic, democratic, laissez-faire, transformational and transactional leadership.

^bDependent Variable: employee performance.

Table 4. ANOVA Leadership Styles and Employee performance

<i>Model</i>		<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1.	Regression	2.165	7	0.548	6.756	0.000 ^a
	Residual	4.349	52	0.081		
	Total	6.514	59			

Source: own processing

^aPredictors: (Constant), autocratic, bureaucratic, charismatic, democratic, laissez-faire, transformational and transactional leadership.

^bDependent Variable: employee performance.

The regression and ANOVA results of the model are presented in Tables 3 and 4 the $R^2 = 0.325$ show that Leadership Styles account for 32.5% variation in employee performance. The full model containing all predictors was statistically significant at 5% because the p value of 0.000^a is less than the significance level of 0.05. According to Field (2009), Durbin-Watson values less than 1 or more than 3 is a cause for concern. Thus, Durbin-Watson value of 1.769 suggests that there is no autocorrelation in our model.

Table 5. Coefficients^a Leadership Styles and Employee performance

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
(Constant)	22.027	3.015		7.644	.003
democratic	.236	0.077	0.262	.013	.002
charismatic	-.428	.158	-.347	-2.644	.467
bureaucratic	-.384	.251	-.342	-2.309	.041
laissez-faire	-.042	.272	-.031	-.185	.015
transactional	-.074	.205	-.069	-.286	.638
autocratic	0.75	.139	0.513	.461	.004
transformational	.225	.069	0.359	.319	.002

Source: own processing

^aDependent Variable: Employee performance

Coefficient results presented in table 5, indicate that transformational leadership style with a beta of (0.359), democratic leadership style with a beta of (0.262) and autocratic leadership style with a beta of (0.513) are statistically significant and strong predictors of employee performance in Business Organizations in Kosovo.

Table 6. Correlations result Leadership Styles and Employee performance.

<i>Variables</i>	<i>Mean</i>	<i>SD</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>
Employee performance	21.055	1.6829	1.000							
democratic	4.9611	0.4376	0.213**	1.000						
charismatic	3.0655	1.3840	-0.228**	0.335	1.000					
bureaucratic	2.3481	0.8478	-0.267*	-0.133	0.333*	1.000				
laissez-faire	2.4574	0.8921	-0.336**	-0.244	0.192*	-0.051	1.000			
transactional	3.7855	1.0745	-0.185**	0.228	-0.133	-0.337	-0.177	1.000		
autocratic	1.9200	1.3174	0.018**	-0.051	-0.412	-0.177	-0.326	0.203	1.000	
transformational	4.6779	6.5521	0.108**	-0.201	0.101	0.063	0.077	-0.056	-0.056	-

Note: **P<.001 * P<.05

The result in table 6 shows that leadership dimensions have both positive and negative influence on employee performance, specifically, charismatic, bureaucratic, laissez-faire and transactional style of leadership have negative effect on employee performance with ($r = -0.228, -0.267, -0.336, -0.185$; $df = 54$; $P < .001$).

However, democratic, autocratic and transformational style of leadership have positive effect on employee performance with ($r = 0.213, 0.018$ and 0.108 ; $df = 54$; $P < .001$).

Conclusions

Different styles were needed for different situations and each leader needed to know when to exhibit a particular approach. Leaders must adjust their leadership style to the situation as well as to the people being led.

The present study was an attempt to explore the suitable leadership styles with respect to the performance of employees. The findings of this study indicated that democratic, autocratic and transformational leadership styles positively impacted the level of employee performance.

The results of the correlation analyses revealed that charismatic, bureaucratic, laissez-faire and transactional leadership style has a negative impact on the level of employee performance but statistically it is not significant.

Leadership is a process of interaction between leaders and followers where the leader attempts to influence followers to achieve a common goal. To implement good leadership style in an organization, the leaders should understand position of supremacy, task structure and expertise and leader member relation generally; having appropriate leadership is importance to be success in employee management and organization because the success or failure of organizations is often attributed to it. It is a widely held belief that leaders do make a difference and a significant impact on the work performance of individuals, group and the overall accomplishment of set goals and objectives.

Managers must know that leadership requires a number of judgments each day that requires sensitivity and understanding of various leadership strategies.

The results revealed that democratic, autocratic and transformational leadership positively influence employees' performance. Each leadership style is a combination of different types of behaviour and characteristics of leaders. If there is the need to make decision quickly and take urgent action, a leader should rely on the autocratic style. If the group is undisciplined and poorly organized, the autocratic style is more efficient. The democratic leadership style matches with a well-organized and stable group. In the longer term, the democratic style of leadership, which includes giving employees a certain freedom and involving them in decision-making, is more productive.

The transformational leadership style matches with attempts to induce followers to reorder their needs by transcending self-interests and strive for higher order

needs. The result clearly indicates that transformational leadership is correlated with employee performance. These results also informed that employee performance is heavily relying on leadership and it can play a vital role in determining the performance of employees, so managers must carefully analyse, what kind of leadership they should adopt if they to want to increase employee performance.

References

- Achua CF, Lussier RN (2010). *Effective Leadership*. USA: Cengage Learning.
- Adebakin O.I and Gbadamusi E.A (1996). *The practices of organizational leadership*. Ibadan. Adeogun printing press.
- Armstrong, M. (2010). *Armstrong's essential human resource management practices: A guide to people management*. London: Kogan Page.
- Avolio, B. J. & Bass, B. M. (2004). *Multifactor Leadership Questionnaire. Manual and sampler set*. (3rd ed.) Redwood City, CA: Mind Garden.
- Avolio, BJ, Walumbwa, FO & Weber, TJ, 2009, „Leadership: current theories, research, and future directions“, *Annual Review of Psychology*, vol. 60, no.1, pp. 421-449
- Aydin, A., Sarier, Y., & Uysal, S. (2013). The effect of school principals' leadership styles on teachers' organizational commitment and job satisfaction. *Educational Sciences: Theory & Practice*, 13(2), 806-811.
- Aydin, A., Savier, Y., & Uysal, S. (2013). The effect of school Principals' leadership styles on teachers' organizational commitment and job satisfaction. *Educational Sciences: Theory and Practice*, 13(2), 805-811.
- Babbie, E. (2002). *The basics of social research* (2nd ed.). Belmont, CA: Wadsworth
- Bass B. M. (1990). *Bass and Stogdill's handbook of leadership: theory research and managerial applications* 3rd edition. NY: Free Press.
- Bass, B. M., & Avolio, B. J. (2000). *Technical report for the MLQ* (2nd ed.). Redwood: Mind Garden.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bass, B., Avolio B.; Jung, D., & Berson, Y. (2003). Predicting Unit Performance by Assessing Transformational and Transactional Leadership. *Journal of Applied Psychology*, Vol. 88, No. 2, pp. 207-218.
- Bass, B.M. (1998). *Transformational leadership: Industry, Military, and Educational Impact*. Hillsdale, NJ: Lawrence Erlbaum.
- Bass, B.M. (1999). On the taming of charisma: a reply to Janice Beyer. *Leadership Quarterly*, 10: 541-553.
- Bass, B.M., (1990). *Bass and Stogdill's handbook of leadership: A survey of theory and research*. New York: Free Press
- Behery, M. (2008). Leadership behaviours that really count in an organization's performance in the Middle East. *Journal of Leadership Studies*, 2(2), 6-21.
- Behling, O., & McFillen, J.M. (1996). A Syncretical Model of Charismatic/transformational Leadership, *Group & Organization Management*, 21, 163-191.
- Bell, R. M. (2013). Charismatic Leadership Case Study with Ronald Reagan as Exemplar. *Emerging Leadership Journeys*, 6(1), 66-74
- Benardin, H. John & Joyce E. Russle (1995), *Human Resources Management*. New York. United States of American. McGraw-Hill Inc.
- Biddle, I. 2005. 'Approaches to management: leadership styles', *Businessdate*, Vol. 13 Issue 3, pp.1-4

- Bodla, M. A., & Nawaz, M. (2010). Comparative Study of Full Range Leadership Model among Faculty Members in Public and Private Sector Higher Education Institutes and Universities. *International Journal of Business and Management*, 5 (4).
- Brown, B. B. (2003). Employees' organizational commitment and their perception of supervisors' relations-oriented and task-oriented leadership behaviors (Doctoral dissertation, Virginia Polytechnic Institute and State University).
- Bushra, Fatima, Usman, Ahmad ve Naveed, Asvir, (2011). "Effect of Transformational Leadership on Employees' Job Satisfaction and Organizational Commitment in Banking Sector of Lahore (Pakistan)", *International Journal of Business and Social Science*, 2, (18): 261-267.
- Cacioppe, R. (1998), An integrated model and approach for the design of effective leadership development programs, *Leadership and Organization Development Journal*, Vol. 19 No. 1, pp. 44-53.
- Carless, S. (1998), "Gender difference in transformational leadership: an examination of superior, leader and subordinate perspective", *Sex Roles*, Vol. 39, pp. 887-902.
- Chaudhry, A. Q., & Javed, H. (2012). Impact of Transactional and Laissez Faire Leadership Style on Motivation. *International Journal of Business and Social Science*, 3(7), 258-264.
- Cheong, L. H. (2008). Investigating the impact of managerial coaching on employees' organizational commitment and turnover intention in Malaysia. (Master Dissertation, University of Malaya, Malaysia).
- Chiang, C. F., & Wang, Y. Y. (2012). The effects of transactional leadership and transformational leadership on organizational commitment in Hotels: The mediating effect of trust. *Journal of Hotel and Business Management*, 1(1).
- Chintaman, S. A. (2014). Business research method - A review. *International Journal of Management Research and Reviews*, 4, 416-420.
- Cho, J., & Dansereau, F. (2010). Are transformational leaders fair? A multi-level study of transformational leadership, justice perceptions, and organizational citizenship behaviors. *The Leadership Quarterly*, 21(3) 409-421.
- Chu, L., & Lai, C. (2011). A research on the influence of leadership style and job characteristics on job performance among accountants of county and city government in Taiwan. *Public Personnel Management*, 40(2), 101-118.
- Clark, R. A., Hartline, M. D., & Jones, K. C. (2009). The effects of leadership style on hotel employees' commitment to service quality. *Cornell Hospitality Quarterly*, 50(2), 209-231.
- Clark, R., Hartline, M., Jones, K. (2010). "The effects of leadership style on hotel employees commitment to service quality" *Cornell Hospitality Quarterly*, 50, Issue 2
- Clark, R.A., Hartline, M.D., & Jones, K.C. (2009). The effects of leadership style on hotel employees,, commitment to service quality. *Cornell Hospitality Quarterly*, 50, 209-231.
- Corvellec H., (1995). "Stories of achievements: narrative features of organizational performance", Lund Sweden, Lund University Press
- Covey, S. R. 2007. 'Developing Leaders', Training, Vol. 44 Issue 2, pp.88-88
- Cox, P. L. (2001). Transformational leadership: A success story at Cornell University. In Proceedings of the ATEM/aappa 2001 conference. Retrieved March (Vol. 17, p. 2004).
- Cummings, L.L. And Schwab, D.P. 1973. Performance In Organisations: Determinants And Appraisal. Glenview: Scott, Foresman And Company.
- Dumdum U. R, Lowe K. B, Avolio B. J (2002), "A Meta Analysis of Transformational and Transactional Leadership Correlates of Effectiveness and Satisfaction: An Update and Extension," In: Avolio B. J, Yammarino F. J (eds) Transformational and Charismatic Leadership: The Road Ahead, JAI Press, Amsterdam, pp. 35-66.
- Dvir, T.M., Eden, D., Avolio, B. J. & Shamir, B. (2002). Impact of transformational leadership on follower development and performance: a field experiment. *Academy of Management Journal*, 45(5), 735-744
- Eagly, A.H. (2007), "Female leadership advantage and disadvantage: resolving the contradictions", *Psychology of Women Quarterly*, Vol. 31, pp. 1-12.
- Eagly, A.H., Johannesen-Schmidt, M.C. and Van Engen, M.L. (2003), "Transformational, transactional and laissez-faire leadership styles: a meta-analysis comparing women and men", *American Psychological Association*, Vol. 129, pp. 569-91.
- Epitropaki, O., & Martin, R. (2005). The moderating role of individual differences in the relation between transformational/transactional leadership perceptions and organizational identification. *The Leadership Quarterly*, 16, 569-589.
- Fiedler, F.E. and House, R.J. (1988), "Leadership Theory and Research: A Report of Progress," *International Review of Industrial and Organisational Psychology*, Vol. 19, No. 88, pp. 73- 91.
- Gadot, E. (2006). Leadership style, organizational politics, and employees' performance An empirical examination of two competing models, *Leadership style*, 36(5), 661-683.
- Glantz, J. (2002). Finding Your Leadership Style. A Guide for Educators; Association for Supervision and Curriculum Development.
- Goodnight, R. (2011). Laissez-Faire Leadership. *Encyclopedia of Leadership*. London, UK: Sage Publications.
- Griffin et al., 2007 M.A. Griffin, A. Neal, S.K. Parker: A new model of work role performance: Positive behavior in uncertain and interdependent contexts *Academy of Management Journal*, 50 (2) (2007), pp. 327-347
- Griffin R. W. (2001). *Management*: Boston Houghton Miffling.
- Gul, S., Ahmad, B., Rehman, S.U., Shabir, N. & Razzaq, N. (2012). Leadership styles, turnover intentions and the mediating role of organisational commitment. *Information and Knowledge Management*, 2(7), 44-51.
- Hakala, D. (2008). How to Measure Employee Performance, 16 Ways. *HR World Newsletter*.
- Hartog, D.N.D. and P.L. Koopman (2011) *Leadership in Organizations. Handbook of Industrial, Work & Organizational Psychology Vol.2.166-187 SAGE Publications*.
- Hauck A, Quinn Griffin MT, Fitzpatrick JJ 2011, 'Structural empowerment and anticipated turnover among critical care nurses', *Journal of Nursing Management*, vol. 19, no. 2, pp. 269-276
- Hicks, G.H., and Gullet, C.R. 1975: *Organizations: Theory and Behaviour*. New York: McGraw-Hill.
- Hofstede, G. (1980), *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, CA.
- Hofstede, G. and Hofstede, G.J. (2005), *Cultures and Organizations: Software of the Mind*, McGraw Hill, New York, NY
- House, R., Hanges, P., Javidan, M., Dorfman, P. and Gupta, V. (2004), *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, Sage Publications, Thousand Oaks, CA.
- Howell, J. and Costley, D. (2006), *Understanding Behaviors for Effective Leadership*, Pearson Prentice Hall, Upper Saddle River, NJ.
- Howell, J. M., Neufeld, D.J. & Avolio, B.J. (2005). Examining the relationship of leadership and physical distance with business unit performance. *The Leadership Quarterly*, 16, 273-285

- Iqbal N, Anwar S, Haider N (2015) Effect of Leadership Style on Employee Performance. *Arabian J Bus Manag Review* 5:146.
- J. Rodney, T., & Ralf, M. (2005). The Project Manager's Leadership Style as a Success Factor on Projects: A Literature Review. *Project Management Journal*.
- Javidan, M., House, R., Dorfman, P., Hanges, P. and Sully De Luque, M. (2006), "Conceptualising and measuring cultures and their consequences: a comparative review of GLOBE's and Hofstede's approaches", *Journal of International Business Studies*, Vol. 37, pp. 897-914.
- Jeremy .M, Melinde .C & Ciller V. (2012). Perceived leadership style and employee participation in a manufacturing company in the democratic republic of Congo, *African journal of business management*, .6(15), 5389-5398.
- Jogulu, U. and Wood, G. (2006), "The role of leadership theory in raising the profile of women in management", *Equal Opportunities International*, Vol. 25, pp. 236-50.
- Jogulu, U. and Wood, G. (2007), "Is transformational leadership always the answer?", *Engineering Management*, Vol. 17.
- Jogulu, U. and Wood, G. (2008), "A cross-cultural study into peer evaluations of women's leadership effectiveness", *Leadership & Organization Development Journal*, Vol. 29, pp. 600-16.
- JOHNSON, M. 1995. *Managing in the new Millennium*. Oxford: Butterworth-Heinemann.
- Judge, T.A. and Piccolo, R.F. (2004), "Transformational and transactional leadership: a meta-analytic test of their relative validity", *Journal of Applied Psychology*, Vol. 89, pp. 755-68.
- Kennedy, J.C. (2002), "Leadership in Malaysia: traditional values, international outlook", *Academy of Management Executives*, Vol. 16, pp. 15-26
- L. J. Mullins (2000). *Management and Organisational Behaviour*, Pitman Publishers, London
- Lam, C., & O'Higgins, E. (2013). Emotional Intelligence and Leadership Styles in China. *Asia Pacific Management Review*, 18(4), 441-467.
- Lam, CS & O'Higgins, ERE 2012, „Enhancing employee outcomes: the interrelated influences of managers" emotional intelligence and leadership style. *Leadership & Organization Development Journal*, vol. 33, no. 2, pp. 149-174.
- Laohavichien, T., Fredendall, L., and Cantrell, R., 2009. "The effects of transformational and transactional leadership on quality improvement", *The Quality Management Journal*, Vol. 16, No. 2, pp. 7-24
- Lee and Chuang (2009). *The Impact of Leadership Styles on Job Stress and Turnover Intention: Taiwan Insurance Industry as an Example*.
- LePine, M. A., Zhang, Y., Crawford, E. R., & Rich, B. L. (2015). Turning their pain to gain: Charismatic leader influence on follower stress appraisal and job performance. *Academy of Management Journal*.
- Lussier N. Robert, Achua F. Christopher (2010). *Leadership: Theory, application, & skill development*. 4th ed. University of Virginia's College at Wise. South Western Cengage Learning.
- Lussier, R.N., & Achua, C.F. (2015). *Leadership: theory, application & skill development*. Boston: Cengage Learning.
- Luthans, F. (1992). *Organisational Behaviour*. (9th ed). Singapore: McGraw Hill
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572.
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572.
- Lyons, J. B., & Schneider, T. R. (2009). The effects of leadership style on stress outcomes. *Leadership Quarterly*, 20, 737- 748.
- Mandell, B. (2003), "A question about women and the leadership option", in Rhode, D. (Ed.), *The Difference 'Difference' Makes*, Stanford University Press, Stanford, CA.
- Mandell, B. and Pherwani, S. (2003), "Relationship between emotional intelligence and transformational leadership styles: a gender comparison", *Journal of Business and Psychology*, Vol. 17, pp. 387-404.
- Maritz, D. (1995). Leadership and mobilizing potential. *Human Resource Management*, 10(1), 8-16.
- Marturana A, Gosling J (2008). *Leadership: The key concepts*. London: Routledge Taylor and Francis Group.
- McCarthy, G, Almeida, S & Ahrens, J 2011, „Understanding employee wellbeing practices in Australian organizations". *The International Journal of Health*, vol. 1, no. 1, pp. 181-197.
- Messick, D. M. & Kramer, R. M. (2004). *The Psychology of Leadership: New Perspectives and Research*. Lawrence Erlbaum Associates, Publishers. New Jersey
- Michael. A. (2010). Leadership style and organizational impact. Retrieved from: [http/ www.ala- apa.org](http://www.ala-apa.org).
- Mills, D. Quinn. *Leadership: How to Lead, How to Live*. Waltham, MA: MindEdge Press, 2005
- Mintzberg, H. (2010). *Developing Leaders? Developing Countries? Oxford Leadership journal* , 1 (2)
- Mohammad Mosadegh Rad, A., & Hossein Yarmohammadian, M. (2006). A study of relationship between managers' leadership style and employees' job satisfaction. *Leadership in Health Services*, 19(2), 11-28.
- Moorhead, G., & Griffin, R. W. (2012). *Managing Organizational Behavior*. UK:South- Western. Hitt, M.A., Black J.S. & Porter L.W. (2009). *Management*. Pearson Education, Inc.:pp.264
- Muchiri, M K 2011, „Leadership in context: A review and research agenda for sub-Saharan", *Africa. Journal of Occupational and Organisational Psychology*, pp.1-13.
- Muchiri, MK, Cooksey, RW, Di Milia, LV & Walumbwa, FO 2011, „Gender and managerial level differences in perceptions of effective leadership", *Leadership & Organisational Development Journal*, vol. 32, no. 5, pp. 462-492.
- Mullins .L. J, (2005), "Management and organizational behavior" in Dolatabadi, R. H., and Safa, M., (2010), "The Effect of Directive and Participative Leadership Style on Employees' Commitment to Service Quality", *Euro Journals - International Bulletin of Business Administration*.
- Mullins, L. 1999. *Management and Organizational Behaviour*. London: Pitman Publishing.
- Neely,A.D., Mike Gregory and Ken Platts (1995) "Performance measurement system design A literature review and research agenda", *International Journal of Operations & Production Management* Vol. 25 No. 12, 2005 pp. 1228-1263 *IJOPM Volume 15 Issue 4*, pp. 80-116
- Northouse, P. G. (2010). *Leadership: Theory and practice* (5th ed.). Thousand Oaks, CA: SAGE.
- Northouse, P. G. (2011). *Introduction to leadership: Concept and practice*. Thousand Oaks: Sage Publications, Inc.
- Northouse, P. G., (2004). *Leadership: theory and practice*. Thousand oaks, ca: sage.
- Northouse, P.G., 2007, *Leadership theory and practice*, 4th edition, Sage, California
- Ogbonna, E., & Harris, L. (2000). Leadership style, organizational culture and performance: Empirical evidence from UK companies. *International Journal of Human Resources Management*, 11(4), 766-788.

- Ololube, N. P. (2013). *Educational Management, Planning and Supervision: Model for Effective Implementation*. Owerri: Springfield Publishers.
- Parker, W. C. (2003). *Teaching democracy: Unity and diversity in public life*. New York: Teachers College Press.
- Phillips, J. M. & Gully, S. M. (2012). *Organisational behaviour tools for success*. Mason, South-Western Cengage learning.
- Punnett, B. J. (2004). *International perspectives on organizational behavior and human resource management*. New York, NY: M.E. Sharpe.
- Rees, G. and French, R. (2013) *Leading, managing and developing people.. 4 th ed*. London: CIPD.
- Richard L. Hughes, Robert C. Ginnett, Gordon J. Curphy (2009). *Leadership: Enhancing the Lessons of Experience*, McGraw-Hill Irwin
- Ristow, A., Amos, T., Staude, G., 1999. Transformational leadership and organizational effectiveness in the administration of cricket in South Africa. *South African Journal of Business Management* 30 (1), 1–5.
- Rost, J.C. (1993). Leadership Development in the New Millennium. *The Journal of Leadership Studies*: 91-110.
- Santrock, J. W. (2007). *A Topical Approach to Life-Span Development*. New York, NY: McGraw-Hill
- Schaefer, R. T. (2005). *Sociology*. (9th Ed). New York, NY: McGraw-Hill.
- Sekaran, U. (2003) *Research Methods for Business: A Skill-Building Approach*. 4th Edition, John Wiley & Sons, New York.
- Shah, M., & Kamal, H. (2015). Transactional Leadership and Job Performance: An Empirical Investigation. *Institute of Business Administration*, 2 (2), 69-81.
- Shahab, Moh. Ali and Inna Nisa. 2014. The Influence of Leadership and Work Attitudes toward Job Satisfaction and Performance of Employee. *International Journal of Managerial Studies and Research (IJMSR)* Volume 2, Issue 5, June.
- Skogstad A., Einarsen S., Torsheim T., Aasland M. S., Hetland H. (2007). The destructiveness of laissez-faire leadership behavior. *Journal of Occupational Health Psychology*, 12(1), 80-92. doi:10.1037/1076-8998.12.1.80
- Spreitzer, G. M., Perttula, K. H., and Xin, K. (2005). Traditionality matters: an examination of the effectiveness of transformational leadership in the United States and Taiwan. *Journal of Organizational Behavior*. 26, 205-227.
- Stacks, D. W. (2010). *Primer of public relations research* (2nd ed), New York: Guildford.
- Stogdill, R.M. & Coons, A.E. 1957. Leader Behavior it's Description and Measurement. Ohio: Bureau of Business Research, The Ohio State University, 88, 1-27.
- Swanepoel, B et al. (2000). *South African human resource management: theory and practice*. Kenwyn: Juta & Co.
- Temple, B. I. (2002). *Avoid Downsizing Disasters: Empower Your Employees*. San Diego Business Journal.
- Tannenbaum, R. and Schmidt, W. (1958). How to choose a leadership pattern: should a leader be democratic or autocratic - or something in between? *Harvard Business Review*, vol. 37, March-April, pp. 95-102 (reprinted in the May-June issue, 1973).
- Timothy C. Obiwuru, et al. 2011. Effect of Leadership Style on Organizational Performance: A Survey Of Selected Small Scale Enterprises in Ikosi-Ketu Council Development Area of Lagos State, Nigeria. *Australian Journal of Business and Management Research*, Vol 1, No. 7.
- Walumbwa, F. O., Mayer, D. M., Wang, P., Wang, H., Workman, K. & Christensen, A. L. (2011). Linking ethical leadership to employee performance: The roles of leader-member exchange, self-efficacy and organisational identification. *Organisational Behaviour and Human Decision Processes*, 115, 204-213
- Wang, F. J., Chich-Jen, S., & Mei-Ling, T. (2010). Effect of leadership style on organizational performance as viewed from human resource management strategy. *African Journal of Business Management*, 4(18), 3924-3936.
- Warrell & Jacobsen. (2014). Internet Research Ethics and the Policy Gap for Ethical Practice in Online Research Settings. *Canadian Journal of Higher Education*, 44(1), 23 - 37.
- Welman, J.C, Kruger S.J. 2004. *Research Methodology*. Cape Town, South Africa: Oxford University Press.
- Yukl, G., (2010). *Leadership in organizations* (7th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

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Liridon Veliu - A teaching assistant at Faculty of Economics at the University of Prishtina in Kosovo. The head of teaching include: Management, Leadership and Human Resource Management. Doctoral Researcher at Faculty of Economics at the University of Tirana in Albania. Scientific interest include: Management. Tel.: +381(0)38 228 966; e-mail: liridon.veliu@uni-pr.edu

Mimoza Manxhari - Prof. Assoc. Dr., Tirana University, Economic Faculty. Field of scientific research: Organizational Behavior, Management, Foundation of Governance. E-mail: mimozamanxhari@feut.edu.al

Visar Demiri - Degree: Master of Management and Informatics at Faculty of Economics at the University of Prishtina in Kosovo. Research interest: management and marketing. Marketing & Online Sales Manager, TechKosova LLC, Kosovo, visar.demiri@techkosova.com, <http://www.techkosova.com>

Liridon Jahaj - Degree: Master of Banking, Finance and Accounting at Faculty of Economics at the University of Prishtina in Kosovo. Field of scientific research: Finance and Financial Management. Financial Manager, alfa.i, Kosovo, liridon.jahaj@alfa-i.com, <http://www.alfa-i.com>



CRUISE TOURISM IN THE BALTIC SEA REGION: LITHUANIAN CASE

Ludmila Kovalevskiene, Inga Letinauskiene, Giedrė Strakšienė

Lithuania Business University of Applied Sciences

Annotation

Worldwide, the cruise industry has had a steady annual growth of passengers since 1990. Expansion strategies to date have been driven by larger capacity ships and their diversification, there are more local ports and a wider variety of destinations on offer, in addition, new on-board/on-shore activities are provided that are able to match customers' demands.

The article focuses on the cruise tourism situation in the Baltic Sea. Its aim is to reveal peculiarities of Lithuanian cruise tourism in the context of the Baltic Sea region. Statistical data of foreign associations and organisations is analysed and direction of development as well as trends of world cruising is discussed. Moreover, statistical data on cruise passengers in the region is examined. The research was performed using statistical reports and publications as well as other scientific evidence, including Lithuanian tourism law, Klaipėda city marketing and communication strategy and city development plan. The impact of cruise tourism on Lithuania is also discussed. To get a broader picture of cruise tourism in Lithuania, representatives of the agencies organising cruising services were interviewed. This enabled the researchers to learn about the supply of services available for the tourists and pointed out the main issues that cruising businesses might face developing cruising products in Lithuania.

The notion of cruise tourism is comparatively well developed in European tourism documents, however Lithuanian documents lack a targeted strategy that would aid the country's cruise tourism development. At present, products that are offered for cruising tourists on shore are saleable and receive good reviews, nevertheless there is still a gap in the market for more interesting excursions as well as specialised tourism products such as culinary and family packages or entertainment, spa or ecotourism products.

The interview revealed that there is not enough cooperation between the organisers of cruise tourism and the local authorities, this is a major hindrance for the successful development of cruise tourism in Lithuania. Sometimes, however, Lithuanian cruise tourism stands out in the European context where a decrease in the number of tourists is noticeable. In Lithuania, this number is steady and this proves the popularity of the region and it can be assumed that the region is in a stable position and will keep attracting a flow of cruise tourists. Nonetheless, world trends should be considered and it is essential to promote cooperation between businesses and public sector, new ways of satisfying growing needs of tourists have to be taken into account in order to maintain a stable position in the market.

KEY WORDS: cruise tourism, cruise tourist, Baltic Sea region, tourism product development, on board/on shore activities.

Introduction

Cruise tourism has an exceptional role in the maritime tourism sector as it is one of the fastest growing businesses that has a huge impact on the region's and the country's economy. According to Cruise Line International Association (hereinafter - CLIA) in 2015 the above mentioned sector created 360 000 work places in Europe (CLIA, 2015); it was accountable for 16.89 billion of direct revenues (40.95 billion of comprehensive income). 6.6 million Europeans chose cruise tourism as the most attractive form of holidays and leisure time. The website of the international organisation "Cruise Baltic" (hereinafter - CB) claims that the tourism sector of the Baltics includes 10 countries, 29 ports and 37 different marine companies that are involved in organising cruises in the Baltic sea (Cruise Baltic Market review, 2017). Passengers, who choose a Baltic cruise, are able to visit 35 objects that are included in the UNESCO culture heritage list and they can discover the local culture, traditions, customs and nature. Baltic cruising is suitable for elderly travellers as the area has cooler summers and it offers peaceful walks as well as attractive prices of tourism services.

Klaipėda is the only port in Lithuania and it received the first cruise ships in 1999. The statistical data of Klaipėda port (2017) indicates that the number of passengers has been fluctuating since 2000, but it has

been increasing since 2011. In 2014 Klaipėda received a record number of ships – 63, whereas in 2016 the port received 64 605 cruise tourists.

Despite major investment and high expectations regarding the construction of the Cruise Ship Terminal and the Central Klaipėda Terminal, Klaipėda has not become the leading port in the field of Baltic cruising and is overtaken by neighbouring Riga and Tallinn ports. Natural and cultural resources of the Lithuanian seaside as well as a UNESCO site – the Curonian Spit, and the proximity of Palanga and Neringa resorts placed the development of Lithuanian cruise tourism in an advantageous position. According to A. Serry (2014), the concept of cruising in the Baltic Sea is well developed but still leaving good opportunities for improvement, therefore it is important to research the situation of Lithuanian cruise tourism in the European context.

The aim of this article is to reveal the peculiarities of Lithuanian cruising in the context of the Baltic Sea region.

The following goals will aid to reach the goal:

1. To review cruising in the Baltic Sea region.
2. To discuss the situation of cruise tourism in Lithuania.

Methods of the research:

1. Scrutiny of documents that enabled to analyse cruise tourism in Lithuania in the European context.

- Interview with representatives of cruising agencies enabled us to learn the supply available for the visiting tourists and determine the main issues of the cruising business that hinder the successful development of cruising products in Lithuania. 6 interviewees were interviewed in May 2017. The interviewees represent 6 different companies and have a substantial experience in the cruising business.

The concept, tendencies and development of cruise tourism

The account of the European Commission (2009) describes cruise tourism as an entertaining voyage in the sea that is only meant for passengers and lasts not less than 60 hours, visiting at least two ports (excluding the port of embarkation and disembarkation). In the study “Cruise Baltic market review” (2017) a cruise tourist is defined as a person buying a cruise trip. A cruise includes visits to several cities/ports; each time the tourist is counted as a passenger in that city/port (a passenger visit). If the cruise tourist stays on the ship for 7 nights and visits 5 cities/ports, he or she is counted as 1 tourist, but as a passenger 5 times with 7 bed-days (on board the ship). The notion of cruise tourism adopted in official Lithuanian documents (Lithuanian tourism law, Lithuanian tourism marketing strategy for 2016-2020, Klaipėda city marketing and communication strategy and city development plan) is more or less the same as of marine tourism. There is no detailed analysis of the notion of Lithuanian cruise tourism in the current scientific work, however the existing research of Lithuanian researchers Valioniene E., Pletkauskaitė G. and Starodubcevaite V. (2013) suggests that there is a growing interest in this area.

Despite the variety of the concepts of cruise tourism, it always includes services of marine transport (accommodation, catering and entertainment on the ship) and the services of tourism on shore (excursions, sightseeing, purchase of souvenirs, etc.) In the centre of both services is the client/traveller, that has his own needs and expectations, one Baltic cruise offers the possibility of visiting 10 different countries and getting to know 10 different cultures. This provides an opportunity to experience several must-see European capitals on one trip. The Baltic region is not only home to some of the most vibrant European capitals, but also has many small hidden gems that offer a relaxing environment close to nature.

According to statistical data (CLIA 2017), 9 out of 10 guests are very satisfied or satisfied with their cruise in the Baltic Sea. 88% of all guests are very likely or likely to recommend a cruise in the Baltic Sea. More than a half of the guests are very likely or likely to return on another cruise.

The statistical data of CLIA (2017) shows that the sector of cruising has been growing steadily reaching 24.7 million passengers in 2016 (see figure 1).

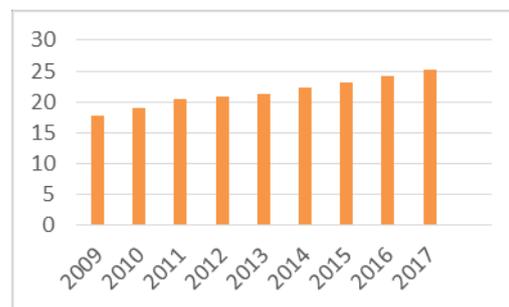


Fig. 1. The dynamics of the growth of the cruising passengers in the world in 2009-2017 (in millions)

The annual increase of the number of passengers was approximately 6.55%. CLIA (2017) claims that it was due to a few main reasons: construction of bigger ships, introduction of new routes that include a higher number of sightseeing objects, the rise of new ports and a wider range of services available (both on the ship and on shore).

According to A. Serry (2014) the leader of the European cruising is the Mediterranean region, however the Baltic Sea region takes the leading role in the Northern Europe.

Cruise tourism in the Baltic Sea region

The Baltic cruise industry has grown very fast since 2000. The lowest cruise industry rates were recorded in 2000 after the end of the cruise shipping season (Valioniene E, Pletkauskaitė G. & Starodubcevaite V., 2013; Welnicki M., 2013). In 2011-2012, the Baltic sea region was still experiencing substantial growth, with 13% more cruise visitors in 2011. Despite the global economic slowdown in 2013 the Baltic Sea region remained a popular destination among tourists, with more than 70 ships operated by 42 companies making over 400 round trips (Serry 2014).

The data of “Cruise Baltic review” (2017) suggests that the total number of cruising passengers had the most rapid increase in 2011 (15,1%). In 2013 the biggest number of cruising tourists was recorded – 4 million. In 2014 a decrease by 2,1% was noted. The number of passengers in 2016 increased by 1.2% compared to the number of passengers in 2015. From 2000-2016 the number of passengers visiting the Cruise Baltic destinations increased by an average annual rate of 9.9% per year (from 1.1 mill. in 2000 to 4.3 mill. in 2016). In 2017 an increase of 13% of passengers (561,972 pax) compared to 2016 is expected (see figure 2 for details).

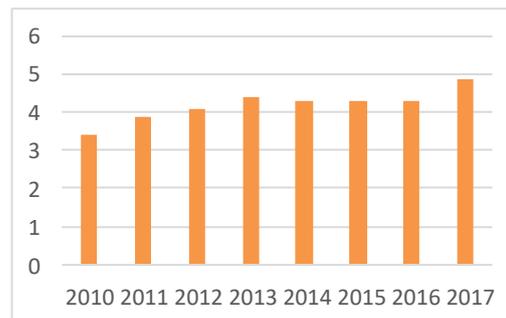


Fig. 2. The dynamics of the number of cruising tourists in the Baltic Sea region in 2010-2017

Considering the number of visiting cruise ships, ports of the Baltic Sea region are divided into four categories: small, medium, large and extra-large (see table 1 for details).

Table 1. Categories of ports of the Baltic Sea region, 2016.

Small 0 – 24 calls	Aalborg (21), Rønne (20), Lübeck-Travemünde (14), Skagen (13), Mariehamn (9), Helsingborg (8), Turku (8), Arendal (4), Kalmar (4), Fredericia (4), Saaremaa (2), Karlskrona (2), Malmö (2), Elsinore (2), Kalundborg (1), Kemi (1), Kalundborg (1), Kotka (0)
Medium 25 – 49 calls	Visby (43), Gothenburg (34), Gdansk (32), Aarhus (29)
Large 50 – 199 calls	Rostock (181), Kiel (147), Oslo (82), Kristiansand (66), Riga (63), Klaipėda (52)
X – Large 200 + calls	Copenhagen (306), St. Petersburg (272), Tallinn (271), Helsinki (240), Stockholm (230)

Dynamics of individual categories of port visit numbers is an important factor in determining the port's place in the market and planning the prospects of its future development. The above indicated data suggests that Copenhagen, Tallinn, St. Petersburg, Stockholm and Helsinki have the leading position. This fact is not surprising considering that some of these ports are the places of embarkation/ disembarkation. It should be mentioned that according to CB data the number of cruise ship visits in these ports has declined in 2016. With the change of the number of visiting ships the status of the port also changes. 2016 had a positive change on Lithuanian port, as instead of being a medium visited port (2015) it received the status of a largely visited port (Cruise Baltic Market Review 2017).

Situation of cruise tourism in Lithuania

The only multimodal, universal and deep-water port in Lithuania – Klaipėda port – is able to receive ships that are up to 337 m. in length, up to 48 m. in width and have a draught up to 13.4 m. The main shipping lines to different European ports cross Klaipėda port. The construction of the the Cruise Ship Terminal (built in 2003) and the opening of the universal Central Klaipėda Terminal (built in 2014) enabled Klaipėda port to become a convenient transit stop for cruise ships. 2016 was the year of important positive change as instead of being an averagely visited port it received the status of an often-visited port (see table 2). During this year 52 cruise ships came to Klaipėda port.

Over 20 years the port received the investment of 2 billion euros, therefore at present Klaipėda port meets all technical requirements applicable to cruising ports (Cruise shipping in Klaipėda port 2017).

The first cruise ships came to Klaipėda port in 1999, however, the real beginning of cruise tourism is considered to be 2003 when the Cruise Ship Terminal was opened and 28 ships with 8786 passengers came to Klaipėda. Since then the number of cruise ships and tourists coming to Klaipėda port has been changing annually.

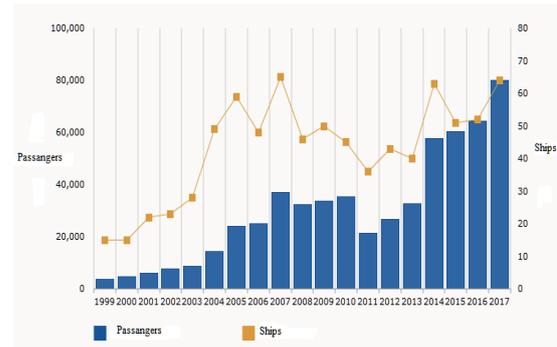


Fig. 3. The dynamics of the number of cruise ships and their passengers in Klaipėda: statistical data of Klaipėda port

According to the data of Klaipėda port (Cruise shipping in Klaipėda port 2017) 2007 was an exceptional year regarding the number of ships received to Klaipėda port – 65. In June 2014, the biggest cruise liner “Celebrity Eclipse”, that is 317 m. in length, 36.88 m. in width and has the draught of 8.3, came to Klaipėda port. The record number of cruise passengers (64 605) was received in 2016. The world economic crisis and its consequences as well as the increase in cruising pricing and the stricter environmental requirements imposed by the European Commission Directorate (since the 1st of January 2015 all ships navigating in the Baltic Sea region have to use marine fuel that has no more than 0.1% of sulphur dioxide (<http://ec.europa.eu>) conditioned the decline of cruising in Klaipėda port. The start of operation of the Central Klaipėda Terminal in 2014 didn't have a major effect on the increase of cruise ships coming to Klaipėda port, however it provided better conditions for reception of cruise ships. It is forecasted that 63 ships will enter Klaipėda port in 2017. So far 31 ships have applied to come to Klaipėda in 2018 (Cruise shipping in Klaipėda port, 2017).

To satisfy the growing needs of a current consumer every region is trying to use all the natural, economic and human resources available. Cooperation of the business and public authorities is essential to run smooth provision of cruising services. Scrutiny of Lithuanian tourism documents indicated that there is no clear concept of cruise tourism as it is not discussed in Lithuanian tourism law (2015), only the notion of marine tourism is used. Cruise tourism is not marked as a priority in Lithuanian tourism development programme of 2014-2020, there is no indication of the foresight of its development possibilities.

Klaipėda council strategic development plan of 2013-2020 envisages attraction of cruising tourists by implementing targeted marine tourism marketing measures (2012). Klaipėda city tourism marketing and communication strategy of 2016-2020 states that the objects of cultural heritage as well as natural, cultural and historic objects are not sufficiently exploited and prepared; the potential of using cruise ship infrastructure to welcome the flow of passengers is not fully grasped; businesses are not involved enough in the development of tourism products. The creation of special cruising products that would attract a bigger number of cruise

ships and stronger international bond with tour operators and travel agencies are indicated as possible solutions.

According to the data of Klaipėda city tourism marketing and communication strategy of 2016-2020, in 2015 Klaipėda State Seaport Authority contributed 57.8 thousand euros to the marketing of cruising. 671 thousand euros were collected during the cruising season of 2015, that constitutes 1.5% of all the tolls of the port. In 2014 Klaipėda city council contributed 32 000 euros to the marketing of cruising and in 2015 the funds of 37 000 euros were allocated. The port plays an important role in attracting maritime tourism flows to Lithuania. Investment in the future development of tourism infrastructure is essential in order to fully exploit the potential of the Baltic Sea and Klaipėda port that would aid the growth of cruise tourism. Nevertheless, even though cruise ships that enter ports are economically advantageous for the port city and the itself country in many aspects, they are not beneficial for the port when it comes to direct revenues – i.e. the income that the port receives from the cruise ships and the passengers of these ships is small if compared to the investment in the development of cruise ship terminals. For instance, one cruise ship passenger spends approximately 50-75€ in Klaipėda (statistical data of Klaipėda port, 2017). The spending figure also depends on the nationalities of tourist. If there are no American passengers at the cruise ship, the average spending in Kalmar will be only about €15 against €75 in case of presence of American passengers (Andersson T. & Rehnberg L. 2013).

In Europe a tourist normally spends about 75-100 euros and a crew member spends about 25 euros during a visit in a port (Serry 2014). The income received from cruising constitutes only 1 – 2 % of all port's comprehensive income received by Klaipėda State Seaport Authority, however the investment in infrastructure and marketing reaches millions. The sector of cruising creates 51-114 work places, this expands the limits of tourism sector and has a positive impact on the life of the local community.

Results of the interviews

In order to discover the situation of cruise tourism in Lithuania, employees of cruising agencies were interviewed. The research pointed out that Lithuania has a sufficient number of natural and cultural resources and facilitates them well creating main tourism products on shore: excursions to the Curonian Spit, Palanga, Plateliai, the old town of Klaipėda and Ventės ragas (this has been stated by 6 interviewees). 2 interviewees, however, claim that tourists of cruise ships have more varied interests, for example, „special transport (limousines, antique cars, horses), excursions to the Hill of Crosses, Trakai, Vilnius and excursions in hot-air balloons“ or „tourists want to travel from Klaipėda to Tallinn on shore“. All respondents were in unanimous agreement that additional specialised excursions or other packages of tourism services on shore could attract and interest tourists of cruise ships. Among these products the following were mentioned: culinary, spa or ecotourism packages, water entertainment and products that focus on family time. The interviewees said: „Klaipėda could offer culinary,

ecotourism and family orientated packages“, „The city could offer water, culinary, ecotourism, spa and family orientated packages“. In order to find out that cruise ship tourists are satisfied with the quality of the service provided, the interviewees were asked what complaints tourists of cruise ships usually have. It was revealed that „cruise ship tourists do not find tourism objects attractive and feel that there is a shortage of them“, „we received complaints regarding transport, lack of attractiveness of tourism objects and public infrastructure in the city (mainly the shortage of WCs)“, „Klaipėda old town is poorly suited for disabled tourists, there is a shortage of WCs“.

Respondents think that the main problems they encounter with organising cruising is the shortage of service providers (guides and buses) and their inflexibility (transport and catering sector) as well as lack of cooperation with the council: „City events and other events that take place in the Cruise Ship Terminal hinder smooth and orderly parking of buses, departure for excursions and return after them. There is a shortage of quality buses as well as lack of German, Italian and French speaking guides“, „cooperation with the city authorities – regarding unplanned or unnotified roadworks and different events (hinder smooth transportation of tourists, the quality of excursions suffers)“, „Shortage of transport and guides on cruise days, bus owners' common agreement regarding transport prices, prices of tours are increased, caterers outside the city are inflexible“, „There is a shortage of guides and buses when big cruise ships come“.

When asked about potentials, the respondents were in an unanimous agreement that limited cruise ship's time in the port restricts the options in provision more varied services and does not allow to organise longer excursions. Moreover, another issue is pointed out: „shortage of quays, there is no possibility to receive a few ships at once“. One respondent points out the problem of limited information: „Substantial amount of information is essential for the guests of the city. When they come to a new place, people want to know the main information: the city centre, coffee bars, museums, shops, banks, etc. Sadly, after guests disembark the ship, they do not see informational signs or references“.

Respondents also shared the following insights: „We may talk about the prospects of cruise tourism in the region only if we promote development of tourism in Western Lithuania: we need to improve tourism infrastructure, increase the number of activities and promote their quality, Western Lithuania tourism companies should work more closely with local and foreign businesses, net principles should be implemented in practice, current resources should reach international level, motivation of clusters would enable us to expect more tourists and this would increase the number of providers and competition among them, consequently, the quality of services would rise, we should also promote flexibility, internationality and competition of the companies that provide tourism service. Positive tendencies will appear after creation of good marketing, and this is only possible if cruise tourism becomes a priority on the national level“.

The research also revealed that so far Klaipėda city has limited development possibilities due to the lack of some infrastructure, insufficient cooperation between businesses and public authorities. It is necessary to consider world tourism development trends; offer specialised, unusual and non-standard packages. Successful development of cruise tourism requires close cooperation of all parties involved: port authority, city council, providers of tourism services and cruising agencies.

Conclusions

Worldwide, the cruise industry has demonstrated annual passenger growth since 1990. Growth strategies to date have been driven by larger capacity ships and their diversification, more local ports available, more destinations that are offered and new on-board/on-shore activities that match consumers' needs.

The notion of cruise tourism is comparatively well developed in European tourism documents, however Lithuanian documents lack a targeted strategy that would aid the country's cruise tourism development. At present, products that are offered for cruising tourists on shore are saleable and receive good reviews, nevertheless there is still a gap in the market for more interesting excursions as well as specialised tourism products such as culinary and family packages or entertainment, spa or ecotourism products.

The interview revealed that there is a lack of cooperation between organisers of cruise tourism and local authorities which hinders successful development of cruise tourism in Lithuania. However, in some cases Lithuanian tourism stands out in European context, where the number of tourists is decreasing; in Lithuania it remains stable and this proves the popularity of the region and suggests that this region is in a rather stable position and will remain attractive for tourists.

References

- Andersson T. & Rehnberg L. (2013) Gothenburg Cruise Destination: An investigation of the importance of networks. Master Thesis. University of Gothenburg.
- European Commission (2009) Tourist facilities in ports – Growth opportunities for the European maritime economy: economic and environmentally sustainable development of tourist facilities in ports. Study report. Luxembourg: Office for Official Publications of the European Communities. doi: 10.2771/10327.
- Serry A. (2014) Organization and development of cruise shipping in the Baltic sea, p. 8-14, [revised 2017 07 28], <http://www.projet-devport.fr/PDF/56.pdf>
- Valioniene E., Pletkauskaitė G., Starodubcevaite V. (2013). Assessment of cruise shipping trends in Klaipėda and Riga ports. *Journal of maritime transport and engineering*, Nr.2, p. 47-53.
- Welnicki M. (2013). The Baltic Connection : A closer look at the upcoming cruise season. *Baltic Transport Journal*, 51, p.55-59.
- Open Access:**
- CLIA. Cruise industry outlook, 2017 [revised 2017 08 08], <https://www.cruising.org/docs/default-source/research/clia-2017-state-of-the-industry.pdf?sfvrsn=0>
- CLIA. The cruise industry: contribution of Cruise Tourism to the Economies of Europe, 2015, [revised 2017 09 02] <http://www.cruising.org/docs/default-source/market-research/2015-europe-economic-impact-study.pdf?sfvrsn=0>
- Cruise Baltic Market Review, 2017, [revised 2017 08 29], <https://www.cruisebaltic.com/media/347089/Cruise-Baltic-Market-Review-2017.pdf>
- Cruise shipping in Klaipėda port, 2017, [revised 2017 08 25], <http://www.portofklaipeda.lt/port-statistics>
- Klaipėda council strategic development plan of 2013-2020, [revised 2017 08 05], <https://www.klaipeda.lt/lit/Aktuali-redakcija/1642629>.
- Klaipėda city communication and marketing strategy 2016-2020, 2015, [revised 2017 08 01], http://www.klaipeda.lt/get_file.php?file=bmFDVW9XdVpscUtZMDViTG5KdkdrcHFUbjZac1lwT2ttNVRDbkdpWnk2S2ZtcGVvbTJlVXNHZkprczlxbzVpV2w5ZVphSnVaWTZETW9jS2JabUjYWN4dWJHcWFhNVpubU1kcTFaaWF4R3lUbfOxWmJwNlZvNWxqeDJTWmxKV2x4NWWhzY0daemt3JTNEJTNE
- Lithuanian tourism law, 2015, [revised 2017 08 08], <https://www.etar.lt/portal/lt/legalAct/TAR.F0E2E67B1F2F/LOBmFTNYTh>

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Ludmila Kovalevskiene. Alumni of LBUAS, Bachelor's degree in Tourism and Recreation management. Working at "DFDS Seaways" (cruise and ferry company). Bachelor title: Cruise Tourism Development Opportunities in Lithuania. Address: Smilteles g. 13-16, Klaipėda, Lithuania. Phone +37060119258. E-mail: ludmila.eglite@gmail.com.

Inga Letinauskienė. Master degree in International Tourism management, Mykolas Romeris University, Lithuania. Head of Recreation and Tourism department at LBUAS. Working experience in tourism industry since 2005 (hotel, tourism agency, flight company). Board member in Klaipėda district guide association. Tour guide, specializing in cycling tours in the Baltic countries. Research interests: tourism management, cycling tourism. Subjects: Tour organization, Guiding principles, Tourism management. Contacts: Turgaus str 21, LT-91549, Klaipėda, Phone: +370 670 57952, E-mail: inga.letinauskienė@ltvk.lt

Giedrė Strakšienė. Doctor of social sciences, assoc.prof. at Recreation and Tourism department at LBUAS. Research interest is connected to development of communicative competence, integrated learning of subjects including the role of communication in them, various teaching and learning drama methods that can help or could be applied in developing of communicative competence. Subjects: Event Management, Basics of Communication, International Protocols and Etiquette. Contacts: Turgaus str. 21, LT-91549, Klaipėda, Phone: +370 698 16083, E-mail: giedre.straksiene@ku.lt



STUDENTS EVALUATIONS OF STUDY PROGRAM: ANALYZING OF QUALITY OF APPLIED INFORMATICS

Zuzana Horváthová¹, Marián Host'ovecký²

¹Metropolitan University Prague, Czech Republic, ²University of Ss. Cyril and Methodius, Slovak Republic

Annotation

The main goal of bachelor study is provide quality of education to its student during three years. The better the studies, the better employment chances of the graduates. The competitive ability of today's youth is a very important social and economic factor in every developed state. Since its foundation, the European Union went from its initial documents founding European Coal and Steel Community, to the Lisbon Treaty founding the European Union, through changes in priorities and goals to a very ambitious strategy that is supposed to bring the EU to a leading place in the world market. The EU is supposed to gain a position as the most competitive economy based on a knowledge and skills-oriented economy.

The paper aims at analysing and assessing of educational programme of applied informatics. It describes the assessment quality of bachelor curriculum in half of the academic year (after one semester) by third year students (last year of the bachelor study) of the Department of Applied Informatics and Math at University of Ss. Cyril and Methodius, Slovak Republic. Data was obtained by electronic questionnaire and anonymously from students. The results are presented by graphical output and describes it.

KEY WORDS: social policy, competitiveness, employment, quality of education, data analysing, curriculum, assessment of quality, students, online survey.

Introduction

What does quality mean in the context of education? Many definitions of quality in education exist, testifying to the complexity and multifaceted nature of the concept. The terms efficiency, effectiveness, equity and quality have often been used synonymously (Adams, 1993). Definitions of quality must be open to change and evolution based on information, changing contexts, and new understandings of the nature of education's challenges. New research - ranging from multinational research to action research at the classroom level - contributes to this redefinition.

The goal of the contribution is to show how a quality study program is capable of positively influencing the overall increase of education of the population on both a national and regional level. Education is one of the long-term economic indicators of each state and the states should therefore approach the increase of quality of study programs in a precise and highly specific manner. The key role in the system remains on the part of the state. Given that this is a classic case of non-market goods, the features and benefits of which (known as positive externalities) are crucial for the society, financing of education is predetermined to be primarily from public funding. The EU finances only specific selected programs through subsidy titles for schools, as well as scientific and research facilities.

The world transformative processes influence seriously education systems in all countries and at all levels. First of all, it appears in transformation of the main educational model specifically from the model of knowledge to the model of competency which we can

over watch in the most of countries (Gerkushenko et al., 2014). This transform for model of competency is very useful for young generation. That is the reason why education is one of the most important part of national economy for every society, every region and country. Quality of education should be supported by every government in country. If the persons responsible for education realized important of education, try to improve it by variety ways. One of the way, how can we improve or increase quality of education system in every elementary or secondary school, college or university is to provide the opportunity to students comment the content of the educational curriculum (or study program), (Ölvecký - Gabriška, 2014; Toman - Michalík, 2013; Mišútová, 2009, Mišútová - Mišút, 2012; Mišút - Pribilová, 2013)

Education invariably aims at developing competencies, technical as well as non-technical ones. As a consequence, there is also a need for methods that can be used to assess the quality of education faithfully. One possible approach is an assessment of whether intended learning outcomes are achieved, i.e. an investigation if the target audience possesses the desired competencies. Assessment of competencies, however, is tricky since competencies are often only vaguely defined. An approach to assess competencies, and particularly those needed for proper software engineering. To that end, SECAT builds on Rauner's approach for competency assessment in vocational education. Rauner's approach uses nine competency criteria, which are further refined by suitable issues that indicate to which extent a competency is, or should be, present. The main

contribution of this paper lies in the adaptation and enhancement of this framework in order to make it useable in software engineering education. Adaptation and enhancements encompass issues such as team and individual assessments, integration of multiple perspectives from various groups of stakeholders, and product- and process-orientation. The paper also presents first insights from using SECAT in a pilot university course in software engineering (Sedelmaier - Landes, 2015).

Strategic goals for education

What does quality mean in the context of education? Many definitions of quality in education exist, testifying to the complexity and multifaceted nature of the concept. The terms efficiency, effectiveness, equity and quality have often been used synonymously (Adams, 1993)

Upon reaching the basic goals of the EU (becoming most competitive and most productive knowledge-based economy in the world), four new strategic goals were established in the ET 2020 program for education:

- *To put into action a life-long education and mobility in learning program.* Advanced changes in technology and increases in information transfer speeds pose ever increasing demands on life-long education. Important factors influencing employment and other social issues are both the ability and the necessity of life-long education and thus better employability in the job market. The European population is aging and it will become necessary to maintain qualified workers to a later age. The introduction of new methods of education are necessary within the globalized market and an ever increasing overlap of the individual fields, including e-learning courses, webinars and other forms of education using information and communication technologies. The internal market, understood as a whole within the entire EU, requires workforce mobility. Workforce mobility is an essential element for employment in the job market. Preparation for travel to follow jobs should therefore become an integral part of education, both for students and for teachers and training educators. Support of exchange study programs also became a partial priority within the first of the four strategic educational goals.
- *To increase the quality and effectiveness of education and professional training.* Quality systems of education and professional training are essential for Europe's success. The education system is moving away from the classic understanding of mechanical learning - memorization. Through the use of repeated word-to-word definitions, memorizing leads to learning without understanding the content, without logical systemization. The new direction is toward a systematic ability of cross-profession overlap of processing of information and knowledge. The most important goal will be to ensure that everyone gains key competencies. To have a competency means that we are capable of performing suitable activities

and get appropriately oriented in a certain natural situation in a manner bringing a beneficial approach.

- *To support justice, social cohesion and active citizenship.* This goal is also accentuated by the international character of the European Union. Emphasis on fair education for all EU citizens is necessary in order to sustain economic growth and social systems. The key interest groups in this case are pupils and students from disadvantaged environments, students with special needs, migrants, etc. The goal is to ensure that they do not end their schooling prematurely, regarding all students between 18-24 years of age in Europe. Their education should also promote multicultural competencies and democratic values without discrimination. Also important are communication skills among peers from different environments.
- *To improve creativity and innovation, including entrepreneurial skills, on all levels of education and professional training.* This part of the strategy is divided into two main goals. The first is the support of key competencies in the area of digital technologies. The second is to endure a fully functional knowledge triangle: education – research - innovation. It is necessary to ensure a collaboration of all stakeholders that influence the future success of graduates in the job market. Collaboration between schools, scientific and research institutions and companies is a key factor for aligning professional and social needs with the personal satisfaction of individuals. Through quality education individuals gain a chance to succeed in the job market and obtain sufficient financial means to satisfy their needs without burdening the social-care system and thus improve the position of the European Union in the worldwide market.

Universities as the centres of knowledge play an important role in education and application of the concept of corporate social responsibility (CSR). They are not just institutions of higher education and research granting titles but they together educate responsible people with excellent knowledge able to solve questions and problems globally and share their knowledge that the wider community can benefit from. The aim is to show which teaching methods could be used to educate students of the study program Informatics (Tokarčíková - Kucharčíková - Ďurišová, 2015). The assessment of academic advising practices is far from satisfactory. Major academic advising approaches and key characteristics of quality assessment practices. We propose the consideration of integrating both the logic model and mixed methods design in academic advising assessment framework. Adapting the Appreciative Education (AE) framework to guide the assessment process, we specify a 6-step model to assess the initiation, interaction, and impact of academic advising practices (He - Hutson, 2016).

When assessing the quality of education should be considered an area involved in the assessment, which takes place. There is a difference, and we will assess the quality of the education system, the quality of schools and the quality of teaching, although all three levels of the pyramid are interrelated and interdependent (Nucem).

The ability to predict what university course a student may select has important quality assurance and economic imperatives. The capacity to determine future course load and student interests provides for increased accuracy in the allocation of resources including curriculum and learning support and career counselling services. Prior research in data mining has identified several models that can be applied to predict course selection based on the data residing in institutional information systems. However, these models only aim to predict the total number of students that may potentially enrol in a course.. This association with student identity is not always feasible due to government regulations (e.g.; student evaluations of teaching and courses. The results demonstrate that the accuracy of the student course predictions was high and equivalent to that of previous data mining approaches using fully identifiable data. The findings suggest that a students' grade point average relative to the grades of the courses they are considering for enrolment was the most important factor in determining future course selections. This finding is consistent with theories of modern counselling psychology that acknowledges self-efficacy as a critical factor in career planning (Ognjanovic at al., 2016).

Applied Informatics may have an important role in the strategies for attracting and retaining talent in Computer Science (CS) studies and careers. Contrary to the continuing growth of the informatics industry in Europe the number of CS experts (students, graduates, teachers, etc.) is declining. This decline is producing negative consequences in the technology field that affect other sectors like business and education. The purpose of this PhD study is to determine if the strategic implementation is an effective means to counteract the declining trend. The research will: Identify the negative consequences of a declining interest in CS studies in Europe; determine the factors which motivate young Europeans to pursue or reject CS studies and careers; analyse CS curricula and how technology can enhance teaching and learning of the unique skills required to become a computer scientist, thus increasing the interest in CS studies and careers amongst young Europeans (Porta, 2010). Students graduating from this programme develop the ability to work on applied problems. Graduates after finish study at the university will use their knowledges in variety areas. They can offer high theoretical, practical and analytical skills.

Accreditation can be referred to as the procedure followed for official recognition or quality assurance. It provides the opportunity of promoting excellence in the field of education. It can be stated as the process in which the quality of an educational institution or a particular educational programme is evaluated so as to formally recognize it if it meets certain standards. As per the exponential growth in the number of engineering colleges in India, the process of accreditation is becoming a necessity in order to maintain the standard of education in the engineering institutes (Kohli, 2014). According to the continuous changes in technology there is a need for continuous changes in rising area of higher education like engineering for the development and evolution of nation in world. For this, there is a need of educational accreditation. Educational accreditation is classified into

different categories like primary educational accreditation, secondary educational accreditation and higher educational accreditation. Accreditation of an educational program is a continuous process which should meet specific standard of quality required for education. There are many points has to be consider for accreditation process (Gonge - Ghatol, 2014).

Modularity is one of the most important quality attributes during system development. Its concepts are commonly used in disciplines of information technology courses, mainly in subjects as software project, software architecture, and others. However, it is notable among certain groups of students that this issue is not fully absorbed in a practical way. Although some researchers and practitioners have approach themes like this, there is still a lack of research about how modularity can be approached in IT courses. This paper presents a systematic mapping study about how the modularity is addressed in education. The main objective is to understand what the main areas in this field are and find more interesting points of research to improve the practice of modularity during IT disciplines (Lima at al., 2015).

Educational policy

The University of Ss. Cyril and Methodius has developed its own basic document Quality Policy titled: *internal system of quality policy at UCM*. Policy, strategy and quality assurance procedures are official and are publicly available. The principles of quality UCM:

- The system has a complex character and is uniform for the whole university;
- The system supports the achievement of strategic objectives of the University;
- The system is elaborated in accordance to national and international Quality Assessment Framework universities;
- The system is open, flexible and focused on continuous quality improvement;
- The system is aimed at strengthening the ongoing feedback from stakeholders and visibility objectives and results of the faculty;
- The system includes the participation of students, employers and other interested parties in the evaluation of quality.

Internal directive regulates cyclic monitoring and assessment of study programs at the University of Ss. Cyril and Methodius in Trnava (further 'UCM'). It is focused on rules, organizational charts and structure evaluation of programs in accordance with internationally accepted evaluation scheme designed for higher education institutions. The cycle of evaluation of programs was processed according to standards and guidelines for quality assurance in the European Higher Education Area, processed organization European Association for Quality Assurance in Higher Education (ENQA) and the monitoring of good practice in the implementation of evaluation systems of European universities. Internal guidelines governing the procedures and framework in which the UCM committed to develop and monitor the effectiveness of the quality system. The

Directive contains binding rules of quality assurance in various fields and at various levels and to various stakeholders. Basic quality policy processed in the internal:

- Linking education and research.
- Quality assurance of teaching staff.
- Monitoring and evaluation of programs.
- Monitoring and evaluation items.
- Control and monitoring of educational process through classroom visits.
- Surveys of relevant target groups in education.
- Assessment of students.
- Evaluation of teachers.
- Monitoring and evaluation of quality in science and research.
- Monitoring and evaluation in the field of international relations and cooperation.
- Student support and involvement of students in internal quality system.
- Public information and information systems.
- Provision of material, technical and information resources to support student learning needs appropriate learning programs.

Education as an economic indicator

The definition of competition-ability of the European Union emphasizes the needs of citizens. Competitiveness enables a country to offer its citizens a growing quality of life and employment for all who want to work.

The EU continues to increase its emphasis on the quality of education in the individual member states, however it fully respects the sovereignty of states in the organization of their educational systems. The responsibility for content and systems of education is fully within the competencies of the governments of the EU member states. Quality school is understood to be a basic prerequisite for the quality development of education of children and students. It is understood in all its aspects, from technical equipment to professional composition of the educational staff. Preparedness and motivation of teachers is seen as a key prerequisite of education of pupils and students in the strategy. Tools and implementation methodologies are ready for school educational systems to achieve all goals of the Strategy 2020 document. All three key aspects are covered: regulative tools, economic tools and information tools. Priority subjects were also established.

Education became one of the key subjects of the Lisbon strategy, defining educational goals intended to help achieve the overall objectives of the strategy. A system of introducing new technologies into education was prepared due to the fast development of information technologies, defining the needs for life-long education. Given the globalized environment of Europe, there is an emphasis on teaching foreign languages and digital literacy.

The aim of our research was to determine quality of study of bachelor programme. An anonymous questionnaire was used in the research that we carried out to determine how students evaluate the quality of this

program. The questionnaire was divided into sections:

- *In the first section* a short introductory text about the intent of the questionnaire was presented followed by demographic data about a student: age, sex, student's current grade etc.
- *In the second section* was implemented database of questions about the quality of study programme (curriculum). We were examining differences in content, subjects composition, which subjects are at least beneficial and the most useful for market needs or if students consider useful theoretical knowledges obtained from lectures during their seminars. The questionnaire was anonymous and used electronically. Electronic questionnaire was created using Google Docs and distributed via an electronic link sent to students.

Participants were 76 bachelor students (60 males and 16 females) with the mean age of 21.6 years (range: 19 - 23 years). The research sample consisted of university students in third level of education. Students participated in the research on a voluntary basis, i.e. they could decide for themselves whether they will take part or not.

Research evaluation and practice recommendations

After obtaining specific data we have them evaluated and graphically illustrated. Of the more than 25 items in the test, we selected those that we think in terms of interpretation to the topic the most important.

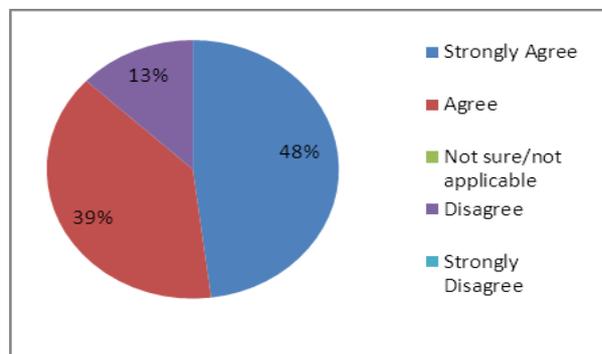


Fig. 1. Is evident consistency between the name of the study program and its content?

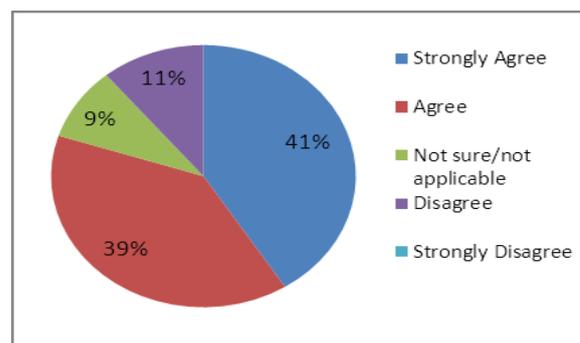


Fig. 2. Does agree study programme composition with the graduate profile of a student?

We have asked students of bachelor's degree, program study of Applied Informatics: "Is evident consistency between the name of the study program and its content?" (Figure 1). We have investigated this issue, or indeed the content of study during three years of their study corresponds with the name of the degree program. More than 48% of students strongly agreed, 39% agreed. Overall, therefore, it expressed, or course content corresponds to the agreed program, nearly 87% of all students. Only 13% of students did not agree with the view that the name of the study program does not match the content. The reason could be that the students probably pointed to the absence of some subjects during the study.

Based on the above, we wanted to confirm the question with the next question in the questionnaire, which was: "Does agree Study program composition with the profile of a graduate student? (Figure 2). "This question surveyed the views from students, or individual objects that have been designed in each semester during every year of study correspond to the profile of the graduate. Based on the results, we can confirm, more than 41% of students strongly agreed with the view that the composition of the study program equivalent to filling a graduate of Applied Informatics. More than 39% of respondents agreed with this view, with 80% of students agreed with this view. Only 11% of students Applied Informatics disagreed with this opinion and requested for more innovative composition of study program of Applied Informatics. Only 9% of students did not answer for the question.

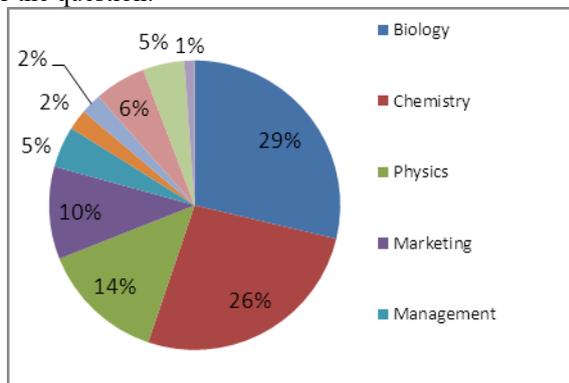


Fig. 3. Which subjects of the study program are at least beneficial for the market need?

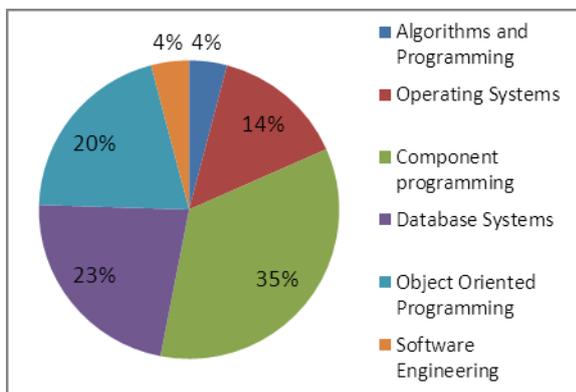


Fig. 4. Which subjects of the study program are the most useful for market needs

Other question that we have investigated from students about the quality of the study program was the question: „Which subjects of the study program are at least beneficial for the market needs? " (Figure 3). This question is one the most important for us, because it identifies which subjects during the study were, for students at least beneficial. Based on the above we can confirm more than 29% of students answered Biology, followed the subject: Chemistry, said 26% of students, and Physics 14% of students. Up to 10% of students reported that the subject of Marketing for least important, followed by 5% subject Management, Accounting 2% of the students said. Subjects that students identified as at least will be remove from new study program at the next accreditation process. More students these subjects not offered and will be replaced by new - attractive and more important subjects from the perspective of practice.

On the other hand we wanted to know which subjects students designated as important for extra practice and their future professional activity. More than 35% of students said that the subject is most beneficial for them Component programming and 20% students Object Oriented Programming i.e., that up to 55% of students deemed most beneficial to market needs programming, ie programming skills. It followed by a further 23% of students who identified the subject Database Systems 14% and Operating System. The remaining 4% of students identified as being most beneficial articles Algorithms and Programming and Software Engineering. In terms of commercial offers that are placed on the site Job, we can confirm the dominance of IT sector offers the most bids is aimed at the programming, database systems and operating systems. These skills are also important for positions as an analyst and consultant of software development. Mentioned objects which gained most evaluation by the students will be widely teaching time from the perspective of seminars.

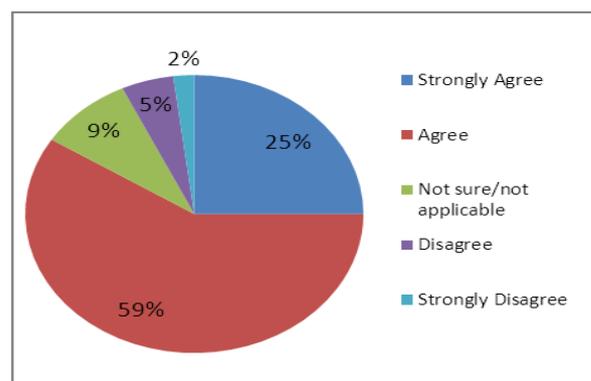


Fig. 5. Are there useful theoretical knowledges obtained from lectures during seminars?

The last graph shows the question: "Are there useful theoretical knowledges Obtained from lectures during seminars?" (Figure 5). As we can see from the responses of students, more than 25% said they strongly agree with the question that the theoretical knowledge of the use of lectures during seminars. Followed by 59% of respondents who agreed with that view. Jointly agreed

with the interconnection of more than 84% of respondents. Only 9% of respondents were unable to comment. 5% of students disagreed and 2% strongly disagreed with the statement that the knowledge gained during the lectures are applied during seminars.

Strategic projects and goals on national levels are approved by the governments of the individual states in accordance with these essential objectives of the EU. With the ongoing transformation of education on the national level of all member states of the Union, a disproportional number of plans, projects and other documents are set forth at such rates that the implementation of one is not completed before another one is issued. Educational laws alone are amended several times per year. The goals of education are established by political priorities of the individual ministers of education, rather than on the basis of professional materials, and the ministers are often changed several times during one election period.

Upon evaluating the answers, many questions and hypotheses arose, suitable for further research or verification. The key subjects of further research should focus on detailed identification of the methods of educating students in regard to their current habits from school.

Another serious matter suitable for further research is a detailed study of the motivation of students for their further application in work life. The European Union strategy is targeting knowledge-based economy. Do the students realize what is expected from them? Do they want to focus on science and research? Do they consider it prestigious? Or are they primarily motivated by financial rewards? Are the EU representatives and the individual member states able to ensure sufficient financial rewards for scientific workers?

Conclusions and discussions

Based on these results we have obtained from students, we can confirm that in the upcoming respectively. The updated program of study for future accreditation be omitted certain subjects and did not offer further students during their studies. In addition, students will have an extension of time should be earmarked for teaching subjects have identified as being most beneficial for practice. It also plans to expand study program for other new items that could increase the attractiveness of study programs, such as. Project management for IT, game development and game programming etc.

Education policy is regarded as a coordinated policy. Each member state of the European Union individually defines its system for upbringing and education. The EU merely helps the member states establish common goals. In 2000, the document known as the Lisbon Strategy became the key strategic document that notably also touched the area of education in the EU. Given the globalized environment of Europe, the document emphasizes the teaching of foreign languages, creating a system of new educational methods using the internet and digital literacy. Further documents followed the Lisbon Strategy, with the current up-to-date program titled *Education and Professional Development 2020*. Quality education and professional training are essential

for resolving the social, demographic, environmental and technological challenges of the world.

It is necessary to prepare high-quality programs focused on the basic subject of education that would solve the key areas of education regarding language training and motivation of students for self-education. The program should have clear and specific established goals that may not change 'annually' according to political decisions, but should be carefully maintained and implemented according to a stipulated schedule. It is critical that the established rules cover the majority population of children and students and not solve only the extremes on both ends - meaning only exceptionally gifted children or, on the other hand, educationally subnormal children.

References

- Adams, D. (1993). Defining educational quality. Improving Educational Quality Project Publication #1: Biennial Report. Arlington, VA: Institute for International Research.
- ET 2020: Strategický rámec evropské spolupráce ve vzdělávání a odborné přípravě. 1. vyd. Praha: Ministerstvo školství, mládeže a tělovýchovy, Odbor pro záležitosti EU, 2010. ISBN 978-80-254-6941-5.
- Gerkushenko, G. et al. (2014). Comparative Analysis on Personal Learning Environment of Russian and Slovakian Students. In ECSM 2014 / European Conference on Social Media. ISSN 2055-7213, Brighton UK: Academic Conferences & Publishing International Lim, 2014. s. 183-192. 779 s. ISBN 978-1-910309-28-5.
- Gonge, S. S., & Ghatol, A. A. (2014). An art of teaching in teaching-learning process: An important part for educational accreditation, quality and assessment. Paper presented at the *Proceedings of the 2014 IEEE International Conference on MOOCs, Innovation and Technology in Education, IEEE MITE 2014*, 17-21. doi:10.1109/MITE.2014.7020233.
- He, Y., & Hutson, B. (2016). Appreciative assessment in academic advising. *Review of Higher Education*, 39(2), 213-240.
- Jankurová, A. (2014). Význam rozvoja ďalšieho vzdelávania v kontexte udržateľného rozvoja, In: *Socioekonomické aspekty trvale udržiteľného rozvoje České republiky 10 let po vstupu do Evropské unie - České Budějovice: Vysoká škola evropských a regionálních studií, o.p.s., 2014. - S. 120-125. 172 s., ISBN 978-80-87472-69-9.*
- Kohli, N. (2014). Role of accreditation in engineering education. Paper presented at the *Proceedings of the 2014 IEEE International Conference on MOOCs, Innovation and Technology in Education, IEEE MITE 2014*, 157-159. doi:10.1109/MITE.2014.7020261.
- Lima, P. A. L., Franco Fraga, G. C. C., Dos Anjos, E. G., & Da Silva, D. R. D. (2015). *Systematic mapping studies in modularity in IT courses* doi:10.1007/978-3-319-21413-9_10
- Mišútová, M. (2009). New Education Technology In Mathematics. Trends in Education 2009: Information Technologies and Technical Education, Palacky University: Olomouc, 2009.
- Mišút, M., Pribilová, K. (2013). Communion impact on project oriented teaching in technology supported education. *Lecture Notes in Electrical Engineering*, 152 LNEE, pp. 559-567.
- Mišútová, M., Mišút, M. (2012). Impact of ICT on the quality of mathematical education 2012 IMSCI 2012 - 6th International Multi-Conference on Society, Cybernetics and Informatics, Proceedings, pp. 82-86.
- Ognjanovic, I., Gasevic, D., & Dawson, S. (2016). Using non-identifiable data to predict student course selections.

- Internet and Higher Education*, 29, 49-62. doi:10.1016/j.iheduc.2015.12.002.
- Ólvecký, M., Gabriška, D. (2014). Motion Capture as an Extension of Web-Based Simulation. In: *Applied Mechanics and Materials*, vol. 513, pp. 827-833.
- Porta, M. (2010). Implementing technology enhanced learning to impede the declining interest in computer science (CS) studies and careers in europe. Paper presented at the *CEUR Workshop Proceedings*, , 709 67-72.
- Sedelmaier, Y., & Landes, D. (2015). A multi-perspective framework for evaluating software engineering education by assessing students' competencies: SECAT - A software engineering competency assessment tool. Paper presented at the *Proceedings - Frontiers in Education Conference, FIE, 2015-February* (February) doi:10.1109/FIE.2014.7044331.
- Tokarčíková, E., Kucharčíková, A., & Ďurišová, M. (2015). Education of students of the study program informatics in the field of corporate social responsibility. *Periodica Polytechnica, Social and Management Sciences*, 23(2), 106-112. doi:10.3311/PPso.7473.
- Toman, J., Michalík, P. (2013). Possibilities of Implementing Practical Teaching in Distance Education. *International Journal of Modern Education Forum* 2(4), 77-83. http://www.eu-yzkum.eu/pdf/Podklad_seminar_4.pdf (cit. 12. 2. 2017).
- http://www.nucem.sk/documents//45/aktivita_4_1/2-def-osvit-monogr-juscakova.pdf (cit. 12. 2. 2017).
- <http://www.unicef.org/education/files/QualityEducation.PDF> (cit. 12. 2. 2017).

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Zuzana Horváthová, Ph.D., Doctor, Metropolitan University Prague, Czech Republic, The Department of Law and Public Administration, Field of scientific research: Social policy, Regionalism, Economic Geography, email: zuzana.horvathova@mup.cz

Marián Hostovecký, Ph.D., Doctor, University of Ss. Cyril and Methodius, Slovak Republic, Faculty of Natural Sciences, Department of Applied Informatics, Field of scientific research: Visualization, Graphics and Multimedia Systems, email: marian.hostovecky@ucm.sk



HOW DOES ARTIFICIAL INTELLIGENCE AFFECT THE TOURISM INDUSTRY?

Martin Zsarnoczky

Enyedi György Doctoral School of Regional Sciences, Szent Istvan University

Annotation

Technological innovations support increased efficiency in every industrial sector. Artificial intelligence (AI) is among the most important innovative solutions. Intelligence is measurable and clearly defined. The science of AI has already achieved many significant results and is used in several fields in different industries. The meaning of AI is not clearly defined; however, the term is most often associated with practical advantages and development. Beyond many positive practical possibilities, AI has brought several new ideas into our everyday lives like 'sharing economy', 'Internet of Things' or 'Internet of People'. Tourism industry is no exception of the many sectors affected by AI: different smart systems and chatbots are used in travel agencies and air transport companies. Predictions about the near future foresee the development of personalised solutions, which will lead to further re-arrangement in the technological revolution that has been going on for decades in the tourism industry. The process of continuous progress seems to be unstoppable, and that leads to the big question: how can we adapt to the new world brought to humanity by AI?

KEY WORDS: artificial intelligence; internet of people; internet of things; sharing economy; tourism.

Introduction

Understanding intelligence has always been an important question for humanity. In the ancient days, Aristotle was among the first ones to explore the realm of human intelligence by contemplating on our judgement about right and wrong. Intelligence can be characterised in many different ways. The term can refer to a way of thinking or can be defined as a synonym of acumen. In common sense, the term intelligence refers to the level of exploiting one's skills and knowledge (Horváth 1991). Intelligence is independent from culture, and has many different types. When talking about intelligence, we can talk about emotional, logical, cognitive, musical any many other types of intelligence. The possibility of creating artificial cognition - the initial idea of AI - was conceived during the process of differentiating the many types of intelligence.

The term 'artificial intelligence' was first introduced by American computer scientist John McCarthy in 1965. The idea of extending the definition of intelligence as a theoretical concept emerged during the simplification of logical problem solving in computer science. (McCarthy 1968). Initially, AI was meant to be an aid for theoretical thinking, mainly used for solving complex and difficult mathematical problems (Minsky 1961). The Turing machine – designed by Alan Turing for the examination of the relationship between programmed predictability and human intuition – also had a great impact on the evolution and development of computer technology. By using a series of simple questions, the Turing machine could solve problems in a way that could easily be seen as if the machine was 'thinking' (Turing 1950). The system of the popular Turing tests - that are still frequently used even today - was developed on the

basis of the Turing machine with the synthesis of mathematic problem solving thinking, actions and logical and physical processes.

The demonstrating of AI was quite problematic at the beginning. It was professor Douglas Carl Engelbart whose university experiences helped to clarify the concept widely among scientists. As an acknowledged inventor, Prof Engelbart contributed to the development of computer science with many milestones. His inventions like the mouse or the hypertext not only helped the work of theoretical researchers but also gave way to the processes that have eventually resulted in the everyday use of computers. The evolution of computer science was going on parallel with the development of intelligence research, which resulted in the defining the main characteristics of intelligence: intentionality, flexibility and productive laziness (Sloman 1978). Further research had proven that intelligence produces explicit knowledge from implicit information through deduction process. The term 'agent' – which refers to the personal attributes of intelligence - has become the core expression of contemporary AI research. AI systems today consist of new problem solving systems like multi-agent systems (MAS) and distributed agent systems (DAI) (Futó 1999). AI research has become an independent scientific field and is applied in several industries. AI is widely used in various industrial sectors because it can enhance quality and efficiency, thus improving the speed of different processes¹. Regarding future predictions, the development is foreseen to continue beyond our recent knowledge; therefore it will be critical how we can adapt to the new world created by AI.

¹ Accenture LLP – <https://www.accenture.com>

Research method

My research focused on the relationship between artificial intelligence and the tourism industry. During the examination of relevant literature, I have noticed that both the scientific field and application possibilities of AI are changing. While the early literature on AI dominantly focuses on the mathematical aspects of AI, the definitions and terms of the field have been extended in the newer researches lately. The distance and reaction time between the industry and customers have significantly shortened. In order to gain an in-depth understanding of ICT used in tourism, I have conducted interviews with tourism experts and AI researchers. I have also used the economic data of an innovative tourism business for my research. My results offer a new approach towards real-life results, which can induce further specialised research, targeted tourism development and ICT-related investments in the field.

Internet of Things

The results of AI-based development can be seen in every industrial sector, especially in the manufacturing and ICT sectors. There are various options of further evolution, both in theoretical development and industrial application.

Based on our current knowledge, AI is closely connected to the following - and several more - fields (Russel et al 2010):

- logical games
- theorem proving
- automated programming
- symbolic algebraic computation
- vision
- robotics
- voice recognition
- natural multi-language processing
- constraint satisfaction
- plan, adoption, use, and value creation
- expert systems
- artificial neural nets
- data mining and knowledge management
- mobility
- information-to-knowledge transformations
- user decision modelling and usage analysis
- location-based services and context-aware systems
- travel information search and retrieval
- social networking, social media and social inspiration
- innovation and service design

Computers are not able to handle information on real life objects, their relations and connections in their original format; the data need to be coded into a processable format. The programming language used for coding defines the speed and effectiveness of processing and the possible operations that can be performed with the data. Knowledge representation requires a suitable amount of operation time and storage in order to be able to perform searches, comparisons, chains and affiliations, etc. (Winston 1992), and the use of AI can largely contribute to these fields. With the spreading of the internet and the expansion of virtual networks, large spatial relations can be included in a single system unit. The data available online and the systemised followability of objects deeply impact human life and thinking (Ashton 2009). The acquired data can help to recognise system errors, lessen production loss, track products and generally improve the quality of life.

According to the general strategy of product development, almost every object and device will be accessible through the internet, which will result in the realisation of IoT. Every device that is capable of bidirectional communication belongs to the system of IoT. Unlike today, the devices of the future will communicate in a bidirectional way. These smart devices and state-of-the-art products will be able to communicate with a central hub or with each other multidirectionally. These devices transfer the data and information created during their operation towards other technical devices, and are able to share them with various ICT solutions through networks, databases and cloud systems. As of today, safe robust data handling, personalised differentiation, personalisation and sufficient decision making are the key challenges related to AI. As a result of constant data collection and systematic data handling, all information should be collected in one system eventually.

The most sensitive issues of data collection and handling are safety and anonymity. From the user's point of view, the most important questions are: where are my preferences collected, who can access them and for what purposes? The European legislation on the topic was issued on 24th May 2016, but will only enter into force on 25th May 2018 (EC 2016). In the meantime, EU member states are obliged to adapt the regulation frameworks to their national legislative background and find the safety measures that will guarantee the safety of users. The regulation aims to solve the problems of data handling. Moreover, it will result in a digital reform that enables European citizens to become full members of the digital world economy. According to the plans, the service providers will be obliged to have certificates that provide information on all their partners and affiliates with regards to all their activities. This of course will not stop marketing and market-research companies from data mining, but the transparency will enable users to keep track of how their data are handled.

The special characteristics of the tourism industry and the development of ICT

Tourism is a primarily business-to-consumer (B2C) centred industry, with a target group of individual consumers. Tourism is based on mobility (Zsarnoczky 2017a). The supply and demand sides of the industry usually meet through internet networks, which requires a great deal of co-operation and trust. In the past, several providers competed for the consumers and the basic definition of travel also had a different meaning. Not so long ago, the typical decision making process included a visit to the nearest travel agency and choosing from the options offered by the company. Another typical solution was to choose from mail-ordered catalogues. If the consumer couldn't find the right option, they would go to another travel agency and compare the different options. Today, this process is dramatically shorter: with the use of smart devices, the whole process of ordering, paying and travelling can be completed within minutes.

As a result of the development of ICT systems, the tourism industry has changed dramatically and its processes have accelerated (Zsarnoczky 2016). Formerly, successful tourism businesses were based on personal relations. The online booking systems of airlines not only resulted in better capacity utilisation, but also in the comparability of prices. The rise of low cost airlines has further forced industrial innovation and increased efficiency. New travel sites like Expedia, Orbitz or Kayak have made the decision making process much easier for the consumer; however, the companies that couldn't keep up with the rapid evolution of the industry were forced out of the market. Travel packages – including car rental and airplane tickets – and untraditional travel offers (e.g.: Lonely Planet) are the opposite of the former business idea of the tourism industry. As online travel offers have become popular very rapidly, the innovative approach - which integrates consumers into the development process - became a fundamental value in the tourism industry. With the appearance of Google, a fierce competition begun among different blogs, tourism offers sites and price comparing online systems. The bidirectional communication, where the consumer is an integral part of the business model (which provides long term information on the preferences of the user), has begun with the introduction of cookies.

The new economic models, based on community service purchases like the Sharing Economy (Sundararajan 2016), are forcing tourism industry stakeholders towards further innovations. Accommodation reservation sites like Booking.com operate deeply embedded in social media; they are able to map their consumers and provide them with tailor made and up-to-date offers. Despite all objections, community-based services like Uber and Airbnb will continue to prosper, simply because consumers use them, thus supporting the reform of new and innovative economic systems. Tourism businesses also must take into account the newest results of robotisation, the success of experimental self-driving

cars and innovative transport solutions, VR-glasses and other ICT developments like tourism-related smartphone applications that appear by the thousand every day. The popularity of Facebook Messenger chatbots (which are connected with other deep text analysing systems of Facebook) is growing rapidly among the customer service centres of state-of-the art airline companies (Alaska Airlines, Lufthansa Group, KLM, Aero Mexico) and travel agencies (Neckermann, TSI). The development of technology cannot be stopped or slowed down; however, businesses can prepare for and adapt to them with organisational flexibility and openness. The new generation of consumers will have different demands. The members of the Internet of People (IoP) community offer their free time to achieve common goals, where community-based new frameworks are set up for a non-specifiable target group (Miranda et al 2015). Similar incentives will make it very difficult for companies that are not ready to serve the needs of consumers in a flexible way, and insist on only selling their own products on the market in a traditional way.

New ways of influencing Traveller's decision

Today, AI plays a huge role in creating personalised offers for users (Russel et al 2010). These tailor-made solutions make travelling more cost effective; ensure that the reservations are made with regards to personal preferences; offer the favourite foods and drinks and preferred programmes for the user; in short, they enable the organisation of the perfect trip, based on the traveller's demands.

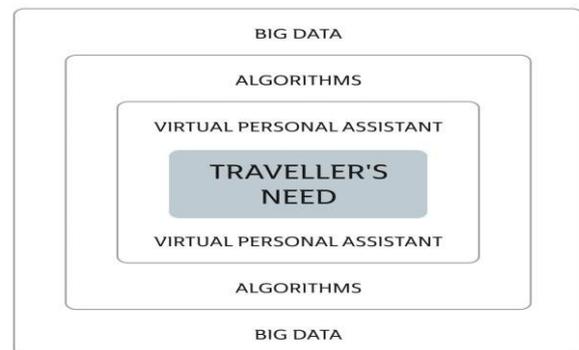


Fig. 1. VPN in the travel decision making

The new decision making system (including Virtual Personal Assistant – VPN) is also beneficial for the service providers, because they can align their operation to the existing capacities (Fig. 1). AI knows personal preferences and individual demands much better than travel agencies. Travel agents might know more about the market as a whole, but no matter how long they'd been working together, they cannot know all the preferences and motivations of the traveller. In addition, AI takes into account positive ideologies like sustainability and climate change awareness (Zsarnoczky 2017b), which at the same time represents a challenge and a huge opportunity for increased efficiency in the tourism industry. In today's fierce

competition within the industry, AI offers a huge advantage; however, not every stakeholder in the tourism industry is ready for its exploitation. While conglomerates and industrial giants are idly watching the evolution of the future, it is the creativity mindset of small innovative businesses that make the economy move forward (Musk 2015). In the future, the uniform offers of today's supply side of the market will be undertaken by personalised services, provided with the help of AI.

Instead of today's uniformed services, the tourism industry should focus on individual preferences in the future (Ricci et al 2002). For instance, today, most service providers cannot imagine that during 'happy hours', they would serve something their guest prefers instead of what they have on offer. However, services like that are exactly what the tourists of the future are looking for, and providing them is a huge advance in the competition. The use of AI is not likely to dramatically change the relationships between the actors and stakeholders of tourism. The fundamental activities in the industry are likely to remain the same: travellers will make decisions on the details of their trip and they will arrive to the chosen destination using their preferred means of travel (Fesenmaier et al 2000). It is clear even today that tourists and local citizens have quite different expectations of the offer of travel portals – influenced by marketing objectives – and what these sites recommend as 'must see' attractions (Zsarnoczky 2017c). In the future, these 'must see' offers can also be personalised and travel options will be brought to consumers in 3D (with devices like Google Glass), so that they can choose between offers especially made for them.

Formerly, besides the offline influences (Fig. 2.) the online solutions that tried to influence the consumers' decisions were following the patterns of user habits in order to enhance their willingness to purchase. The websites with precisely placed information represented a one-way communication, which enabled consumers to choose from the given options. New generation commercial technologies follow and analyse the reactions of consumers via web cameras. There are stores that use real time, camera-based solutions to follow the flow of customers within the stores and analyse their decision making process instead of using the usual shelf placement techniques. This way, retail businesses are able to use not only 'external' marketing strategies, but they can adapt to their consumers' habits based on information gained within their own system. The softwares used in these retail units recognise the gender of the customer, and collect data on what products they are interested in and how they react to the information they read on the packages of products.

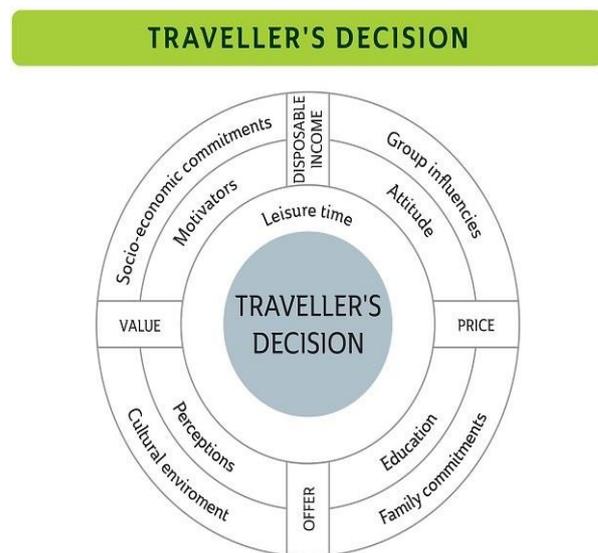


Fig. 2. Influences of offline travel making decision

Results

In the technological revolution of the tourism industry, AI-controlled chatbots play an important role. The first chatbot - called ELIZA - was developed in 1964 (Weizenbaum 1976). Chatbots, developed for automatized communication, have evolved enormously since the introduction of the first model; their most popular versions are counselling and personal assistant applications. Their main fields of use are retail, customer services, decision making support, state-of-the-art payment systems and online community building.

This case study examines the use of chatbots within the frameworks of an innovative tourism enterprise. The Matra Resort tourism project in Hungary² operates guesthouses and uses a Facebook Messenger type chatbot since 2017. They also tried to use drag&drop chat software in the past but without any positive response from the customers.

The following data were used for our research:

- chatbot usage timeframe: 20/02/2017 – 20/08/2017
- website visitors during the selected period: 841 downloads
- number of chatbot questions: 301

The operators of the Matra Resort have uploaded 145 questions with their respective answer options into the chatbot system. The questions and answers contained information on the guesthouses, travel and transportation options and available programmes in the following distribution:

- 69 chatbot questions about the guest houses
- 32 chatbot questions about travel and transportation
- 44 chatbot questions about available programmes.

² Matra Resort – <http://matraresort.com>

For our research, we have chosen the 10 most frequent chatbot questions:

Table 1. The 10 most frequently asked questions at the Matra Resort's chatbot

1.	where is the guesthouse located	53 times
2.	how can I get there	50 times
3.	what are the available programmes	32 times
4.	what can I do there	30 times
5.	what is the name of the street	29 times
6.	what is name of the guesthouse	25 times
7.	how many people can go	12 times
8.	are there any neighbours	11 times
9.	what time should we arrive	10 times
10.	where can we eat	9times

The list of 10 most frequently asked questions adds up to a total number of 261, representing 86.7% of all questions asked. Among the 10 above listed questions, the first two: 'where is the guest house located' and 'how can I get there', have an outstanding ratio of 34.2%. The analysis of the rest of the questions (not listed among the 10 most frequently asked ones) shows that 19 questions were not referring to the profile of the guest house. Another 16 questions were rude and offensive and revealed no relevant information on how the questioner was related to local tourism. The remaining 6 questions were asked by aromatised robots.

The results reveal the following:

- the questioners were searching for practical information on Matra Resort via chatbots; out of the 145 questions presumed by Matra Resort – a.k.a. the service provider -, less than 10% accounted for more than 90% of the actual questions asked via the chatbots;
- the questions asked via chatbots were inquiring about information that can also be found on the website. This means that the number of website visits is not directly connected to the use of chatbots.

The analysis of the results assumes that the users mainly use their smartphones for communication with the Matra Resort chatbots. The answers to the question 'where is the guesthouse' are the name of the settlement (Parádsasvár) and the street address (Béke u. 1.). When typed into Google or other search engines, these location data will result in displaying visual information and further data about the place. The second question ('how can I get there') is answered with a multiple option description on accessibility, including information about different roads and motorways, the duration of travel and notable sights along the way. This chatbot answer is useful for route planning programmes. Based on the information, the

travel programme can be extended with further tourism programmes and other options.

To justify our hypothesis, we have also analysed the time logs of the first two questions. We have found that out of the 103 questions, 86 were asked between 8 a.m. and 12:30 p.m., and 11 between 7:30 p.m. and 10:30 p.m. The remaining 6 questions were asked at different times. This pattern suggests that the use of chatbots is directly linked to the planning process of the travel preparation, and that chatbots are a convenient form of acquiring information.

Conclusions

Artificial intelligence is a new form of intelligence, which is able to synthesise several different ideas simultaneously. Today's technological revolution requires effectiveness, sustainability and productivity at the same time. The use of artificial intelligence – which can be utilised in numerous different fields - is expanding in every industrial sector. For the users of the online world, it is natural to share data or send back information for big companies, and because of that, enterprisers are able to analyse big data and create a profile for each of their customers.

The efficiency of interactive communication is of key importance for innovative companies in order to increase their sales. The ICT revolution has brought forth dramatic changes in the tourism industry as well. AI-operated chatbots and other smart solutions used by different service providers enable the development of personalised offers. Although AI-related solutions are still not widespread within the tourism sector, they are predicted to be used more often in the future in order to increase the quality of the products and services. The big question about today's technological boom is whether the process will continue in the long run. The further expansion of artificial intelligence has a positive impact on the future of the tourism industry sector.

References

- Aristotle *Nicomachean Ethics* 1098a31Aston, K. (2009). *That 'Internet of Things' Thing*. <http://www.rfidjournal.com/articles/view?4986>
- European Council (2016). *Regulation (EU) 2016/679 of the European Parliament and of the Council*. Official Journal of the European Union L 119/1 4.5.2016
- Futó, I. (1999). *Artificial Intelligence. Mesterséges Intelligencia*. Aula Kiadó Kft., Budapest. pp. 317-440
- Horváth, Gy. (1991) *Measurement of Intellect. Azértelem mérése*. Tankönyvkiadó, Budapest. pp. 199-227.
- Ricci, F. - Werthner, H. (2002). "Case-Based Querying for Travel Planning Recommendation," *Information Technology and Tourism*, vol. 4, nos. 3–4. pp. 215–226.
- Fesenmaier, D.R. – Jeng, J. (2000) "Assessing Structure in the Pleasure Trip Planning Process," *Tourism Analysis*, vol. 5, no. 1. pp. 13–27.

- Russel, S. – Norvig, P. (2010) *Artificial Intelligence. A Modern Approach*. Pearson Education Inc., New Jersey. pp. 43-71.
- Sloman, A. (1978). *The Computer Revolution in Philosophy: Philosophy, science and models of mind*. Harvester press and Humanities press, New Jersey. pp. 144-178.
- Sundararajan, A. (2016). *The Sharing Economy*. MIT Press, Cambridge. pp. 33-68.
- Minsky, M. (1961). *Steps towards artificial intelligence*. Proceedings of IRE, New York. pp. 8-30.
- Miranda, J. – Makitalo, N. – Garcia-Alonso, J. – Berrocal, J. – Mikkonen, T. – Canal, C. – Murillo, J. M. (2015). *From Internet of Things to Internet of People*. IEEE Internet Computing, IEEE Computer Society. pp. 2-8.
- McCarthy, J. (1968). *Programs with common sense*. In Minsky, M. L. (Ed.), *Semantic Information Processing*, MIT Press. Boston. pp. 403–418.
- Musk, E. (2015). *Tesla, SpaceX, and the Quest for a Fantastic Future*. HarperCollins Publishing, New York. pp. 12-30
- Turing, A. M. (1950). *Computing machinery and intelligence*. *Mind*, 59, 433-460.
- Weizenbaum, J. (1976). *Computer Power and Human Reason: From Judgment to Calculation*. W.H. Freeman and Company, New York. pp. 182-189.
- Winston, P. H. (1992). *Artificial Intelligence*. Addison-Wesley Publishing Company, Boston. pp. 10-29.
- Zsarnoczky, M. (2016). *Impact of Silver Economy on Health Tourism. Az idők szegmensének hatásai az egészségturizmusban*. *Acta Robertus Carulus*. 6. 318.
- Zsarnoczky, M. (2017a). *Accessible & Senior Tourism in the European Union*. Conference proceeding of 6th Central European Conference in Regional Sciences, Banska Bystrica.
- Zsarnoczky, M. (2017b). *The future of sustainable rural tourism development: the impacts of climate change*. *Annals of the Polish Association of Agricultural and Agribusiness Economists*. XIX., Kraków.
- Zsarnoczky, M. (2017c). *The Unique Characteristic of Use of Space in Tourism*. Conference proceeding of 57th ERSa Congress, Groningen.

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Martin Zsarnoczky is PhD candidate at Szent Istvan University, Enyedi György Doctoral School of Regional Studies. Formerly he worked in the private sector as a tourism project founder and manager almost in 10 regional tourism and EU project. He was responsible for development, training and employment appraisal. His research interest is competence management practices of companies and the future tourism space requirements for elderly people. His research fields are the health tourism and the phenomenon of aging, especially in the European Union. He spent short term studies at UTWENTE University, ITC, Faculty of Geo-information Science and Earth Observation. Martin is a Member of the Board IX. at Budapest Chamber Of Commerce and Industry. Phone number +36/709-388-874. E-mail martin@aunaturel.hu



SKILLED SEAPORT WORKER'S PROFESSIONAL VOCATION MANAGEMENT AT THE ANTHROPOLOGICAL LEVEL OF THE SEASHORE ENVIRONMENT

Saulius Lileikis

Lithuanian Maritime Academy

Annotation

One of possibilities to develop and naturally manage the professional vocation of a future skilled seaport worker is the knowledge of the natural vocation as an automatic expression of the human nature. The environment of the seaport as a seashore helps the personality perceive oneself in his/her own natural existence, discover the anthropological similarities and human symbols of the seashore related to the natural human ambivalence. The object of the research is an anthropological interpretation of the seashore in order to develop the natural professional vocation of a future skilled seaport worker. The main methods of the research are as follows: scientific literature analysis, interpretation, heuristic method and systemization. The methodological principles are existentialism, humanism, symbolic interactionism and psychoanalysis. The type of the research is theoretically descriptive. The anthropological level of the natural professional vocation of a future skilled seaport worker is discussed in the paper by revealing four dimensions - the limit, the creative decision-making, the professional identity and ecology. The results of the research can be applied by preparing skilled seaport workers at the anthropological, psychoanalytical and ecological levels.

KEYWORDS: seaport worker, anthropology, professional vocation, seashore environment.

Introduction

Relevance and novelty of the problem. We live in a contradictory time from the point of view of the higher education mission.

Higher education in Eastern Europe is more and more promoted to achieve the level of a narrow industrial school without a deep scientific base in the context of globalization.

However, higher education is politically characterized by the high requirements related to creativity, competences, valuable attitudes, vocational self-concept, ecological and political awareness, long-life learning etc.

So, the higher school is still preparing not ordinary seaport workers but skilled ones.

In order to achieve the mentioned level of higher education, we need to take into account the didactically important things as follows:

- Laws of the human nature,
- Structure of the personality,
- Motivation of ability to vocationally create oneself,
- Developing professional vocation,
- Free cognitive expression of the personality,
- Expansion of his/her horizons in general,
- Development of one's own professional identity at

conditions of democratic education.

One of possibilities to develop and naturally manage the professional vocation of a future skilled seaport worker is the knowledge of the natural vocation as an automatic expression of the human nature.

The environment of the seaport as a seashore helps the personality perceive oneself in his/her own natural

existence, discover the anthropological similarities and human symbols of the seashore related to the natural human ambivalence (a tension of the body and soul, biology and techno-culture, as a relationship between the natural sea and the cultivated land) and try to ecologically harmonize oneself with oneself and with the environment.

Anthropological investigations are approaching to this scientific issue (Corbin 1994; Beresnevičius 2002; Schmid-Höhne 2006; Durkheim 2007; Tenzer 2007; Chiesa 2014; Lileikis 2011, 2015; Mega 2016; O'Connor 2016 etc.).

We can find some parallels in ancient mythology, Greek philosophy, modern sociology, modern and current psychoanalysis (Freud 1930; Wirth 2004; Kaufmann 2006 etc.).

Anthropology as a science of the human nature and its expression in personal and especially - socio-cultural and professional traditions, which are developed, can become the adequate methodological base to improve the personality of a skilled seaport worker and his/her professional vocation from the deep psychological point of view in reality of life.

The professional vocation of the personality in this case is valid as a natural personal expression and tendency to productively implement oneself in a chosen area.

Naturalness of the professional vocation of a skilled seaport worker is anthropologically characterized by the seashore, which symbolizes the human being at the deep psychological level. In this way the professional vocation can be not only traditionally recognized but also naturally strengthened by the natural environment, in which the

professional vocation of a skilled seaport worker will be eventually implemented.

The development and management of the natural professional vocation of a skilled seaport worker are not investigated usually from this important anthropological point of view.

The object of the research is an anthropological interpretation of the seashore in order to develop the natural professional vocation of a future skilled seaport worker.

The purpose of the paper is to conduct theoretical investigation of the anthropological level of a future skilled seaport worker's natural professional vocation.

The objectives are as follows:

1. Revelation of dimension of the limit.
2. Consideration of dimension of the creative decision-making.
3. Characterization of dimension of the professional identity.
4. Development of ecological dimension.

The main methods such as heuristic method and philosophical interpretation were used in the research.

The methodological principles are as follows:

– *Existentialism*, which emphasizes that the seashore is not only the work place of skilled seaport workers but also their existential state, in which semi-unconscious experiences of the natural and techno-cultural environment relate among themselves from the anthropological point of view;

– *Humanism*, which bases the commitment of a skilled seaport worker to act authentically according to one's own natural professional vocation by implementing the humanistic nature, where biological and spiritual origins relate between themselves; the seashore symbolizes them as a relationship between the sea and techno-culturally developed land, and all their dynamic and creative tensions;

– *Symbolic interactionism*, which analyses the behavior that at the level of the seashore depends on the meaning of the seashore; perception of this meaning is the result of the social interaction (e.g. higher education) but meanings are applied and changed, depending on situations, in the processes of the interpretation;

– *Psychoanalysis*, which emphasizes the role of sub-consciousness, internal conflicts and defense mechanisms that are important factors regarding the interpretation of semi-unconscious relationships between the seashore and the personality of a skilled seaport worker.

Dimension of the limit

In narrow sense, the seashore can be simply considered as a limit that divides the land and sea. However, in general, reality of the seashore must be reflected in a broader context. The society goes from the seashore to the inland to create the civilization and culture but it comes back to acquire the origin of naturalness.

The seashore is like a station, where the wanderers stop because they are disabled to go further. The seashore is a place of meeting, of temporality and often of separation from seafarers, fishers or wanderers.

A future skilled seaport worker, by developing such kind of noble concept in the context of higher education, is able to nobly see one's own profession and its quality.

The line of the seashore expresses a tension of two worlds or the relationship between two dimensions of the same world (Beresnevičius 2002). This is a tension of being here and moving forward. This is a place, where it is already *no more* and at the same time - *not yet*.

The seashore is an undefined conception, which expresses dualistic being, in which we are neither on the land nor at the sea. This is unclear existence between the land, that ensures supposed security, and the waters, that are characterized by the real dangers.

It is important to know the possibility of combining of contradictions. The human being exists in contradictions and doubts. However, contradictions can help achieve their harmony because it is solely possible to combine different things. There are great and deep psychological parameters of the human being, which are useful to get self-concept in the tension of the difficult professional life.

On the one hand, the seashore designates dualism because of two elements - the land and the sea. On the other hand, it expresses the integral and existential human identity. The seashore still is like the land but at the same time it is no more the land (Tenzer 2007).

The personality of a skilled seaport worker is unique because he/she professionally implements himself/herself in the tension of special natural relationships, which also show the dynamics of the body and soul of the human being. The goal of the human nature is fully undefined. However, the human being is pursuing the personal and professional goals by defeating psychological tensions and trying to implement the expression of naturally perceived his/her own identity.

We can state, that the seashore is neither a firmament of the land nor the huge sea. The seashore is also real and reliable, maybe a little bit mystical but necessarily metaphysical symbol of the limit.

It is a sign of the limit, limitations or restrictions. The land is limited. The sea is limited, too. They limit each other but also they both are inevitably bordered.

It should be explained as the most natural and universal school for them who:

- Reflect their existential *modus vivendi* in difficult situations;
- Become skilled seaport workers;
- Are able to make professional decisions needed here and now, e.g. by cargo handling, planning or controlling.

Moreover, the mentioned limit remains as some secrecy regarding the structure of nature and the work situations at the seaport, which require creative decisions.

The creative decision-making

The seashore is stable and temporarily reliable. However, the personality is freely looking to the sea horizon. The seashore is especially worth because it empowers to be (to coexist) the both forms of existence - the land and the sea.

There are a lot of similar forms of coexistence in nature, e.g.:

- A plant finds the vital path in rocks;
- A wanderer finds the green oasis in desert.

The human being, characterized by the metaphysical sense, is able to evaluate and use the indirectly expressed dualistically integral gifts from nature for his/her personal enrichment. The human being is a value, and he/she is experiencing different professional challenges. It is important to find a solution. Difficult situations are interesting because in them we can creatively find a solution. Nature itself is dynamic and universally symbolizing the existential and significant searches.

A skilled seaport worker must find the meaning and the way out and solve the problems. It is natural because the human nature is constructed regarding his/her existence in nature.

The human being, as a part of nature, reflects that, individually searches solutions, creates one's own identity and develops one's own creative professional vocation. There is also the question about some strange and beautiful ontological tension of relationships between the sea and the personality. People of all times have rushed to experience of this tension (Beckenhagen 1995).

This psychological tension gives reason to explain the social phenomenon when the people try to go hundreds of kilometers to be a little bit by the sea, to see, to calm down, to admire (e.g. the phenomenon of Palanga) and then to come back again to trivial gray of their daily life.

The land without the sea, and the sea without the land could not psychologically fully enrich the personality, which naturally wishes the experience of the mentioned existentially symbolical limit of the seashore.

When to compare a seafarer and a skilled seaport worker, we can find an advantage, which enriches namely a skilled seaport worker as the human being regarding his/her nature that is binary whole (composed by the body and soul). Although a skilled seaport worker is limited by his/her work and cannot be delighted with the sea-horizon, however he/she is working at the seaport on the seashore and is able to perceive its limit (between the

land and sea), which has based the creation of civilizations and their histories.

The educated seaport worker:

- Is not a primitive functionary;
- Is creative especially because of higher education;
- Becomes able to notice the spiritual products, which are created by the long-term culture of the world processes;

- As the personality creates the meanings;
 - Is able to represent, e.g. his/her state, in any relationships because he/she is creative and characterized by a broad approach by experiencing the natural contradiction between the land and sea in his/her own nature. The mentioned limit between the land and sea marks the relationship between nature and culture. The landscape of many countries is characterized by the fact, that only the sea is a clear part of nature but from the seashore forms of expression of human techno-creative decisions already begin. It means the seaport buildings and technologies, urban artificial scenery and furnished districts. The land is overpowered by techno-culture of utilitarian needs. All that makes semi-unconscious impact on the ability of decision-making by working at the seaport, anthropologically characterized by experience of the creative tension regarding natural and cultural environments of the seashore.

Dimension of the professional identity

The human nature, which is characterized by ambivalence, naturally fits the dynamic duality of the seashore: the sea symbolizes the human biological nature; the land (with its seaport on the techno-cultural seashore, infra- and supra-structure, cranes, buildings, warehouses etc.) symbolizes the human spiritual nature, especially regarding knowledge. Both these origins compose a conflict and natural and professional challenge for a skilled seaport worker, which is characterized by semi-unconscious existential experiences of the seashore from the point of view of his/her professional identity (Fig. 1).

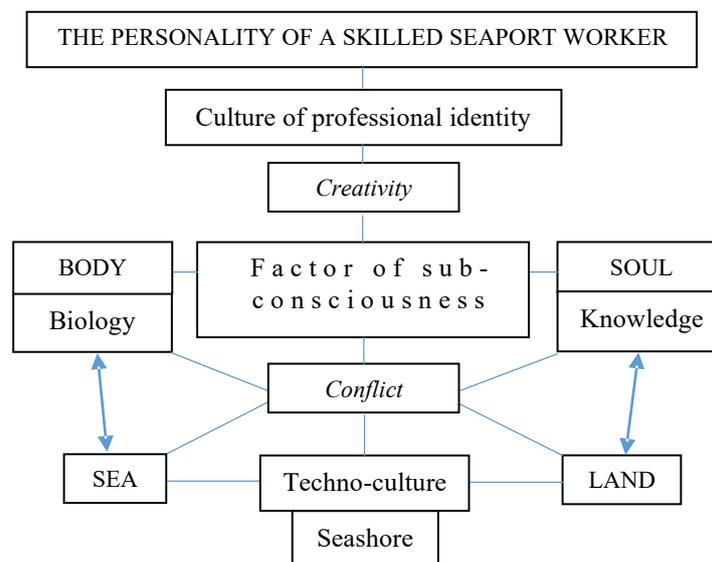


Fig. 1. The anthropological relationship between sea-land and body-soul

The model shows the relative tendencies in two main sections (sea-land and body-soul).

There is a natural conflict between the sea and land like between the body and soul by influencing of the factor of sub-consciousness.

So, a skilled worker, operating at the seaport (on the seashore), is experiencing the natural professional vocation when the natural dynamic limit of *sea-land* meets the natural dynamic limit of *body-soul* in the personality.

We can suppose that it naturally helps the skilled seaport worker creatively operate and create his/her own professional identity on the seashore because of mentioned natural and techno-cultural similarities between nature and the personality.

Nature is like the personality. The seaport symbolizes the human professional development from the anthropomorphic point of view. Technological development (from the seashore to the seaport) relates to the personality, which develops the culture of his/her professional competences.

The psychoanalytical approach allows to consider the relationship between the human consciousness and sub-consciousness.

Perception of unconscious motives and raising of them to the level of consciousness were compared with the drainage of the Zuiderzee of the Netherlands in order to protect the land from the North Sea flood (Goldschmidt 2003).

The tradition of symbolization allows to develop the additional parallel between ships, which connect different seashores, and intercultural competence, which helps collaborate the educated seaport workers characterized by different mentality.

Moreover, the human being at the transcendental level expresses as a mark of the limit between nature and culture. He/she naturally perceives that he/she is not only determined by nature, physiology or limits of his/her own materialistic nature.

The relationship to the sea opens freer and broader thought-horizons from the point of view of the personality's development.

Feeling of transcendence characterizes the personality who abides by the sea. He/she symbolically rises above the visible material nature. It shows the potential nobler state of the personality and his/her most relevant need - freedom, which especially relates to the ability of creativity.

The personality, remaining natural one, at the same time can learn to separate oneself from limits of the nature and open for transcendental reality. It gives the personality great existential satisfaction.

The sea promotes the human consciousness to rise above trivial being, problems, slavery of the work routine, by combining physiological needs with the spiritual ones.

The mentioned self-separation as opposition to gray daily routine helps improve the personality and his/her identity.

The founder of psychoanalysis S. Freud (1930), according to ancient sources, reflections, researches and personal scientific insights, has considered the self-

separation (like a contrast) as a priority of opportunity of human happiness (Freud 1930).

The seashore environment relates to the natural psychological tension of limits. However, the psychological harmony can be created at the same time, too.

The scientists and artists, e.g. F. Nietzsche, S. Freud, V. Mykolaitis-Putinas, M. K. Čiurlionis etc., have productively reflected and created when being on the seashore. They appreciated the sea very much from the existential point of view.

During reflection the personality can use his/her natural and relevant allegorical thinking developed at the level of symbols. Experienced sea fear can be allegorically related to the worry of life as an ancient source of wisdom, and experienced joy can stimulate aspirations to solve problems or defeat professional difficulties.

Although the seaport and natural seashore are different things but the tension of relationship between both elements (the land and the sea) can be psychologically experienced.

This tension also means the productive creativity (e.g. the marine business on the seashore, where both elements causes the useful psychological tension, especially at the unconscious level) and helps develop the professional identity of a skilled worker.

So, we can suppose, that it is meaningful at the level of a skilled seaport worker, too.

Ecological dimension

The mentioned things also compose the anthropological base of the ecological development because of natural methodological commonality between the human nature and processes in nature. Nature itself is the great teacher of the human life style aesthetics who can enrich the personality with ecologically worth information of nature (Jovaiša 2001).

We cannot justify the pollution of the environment. However, we have to understand the psychological causes of the pollution in order to achieve educational changes in a field of the ecological consciousness. Insufficiently educated person, who unconsciously or semi-unconsciously feels dirty at the spiritual level, pollutes his/her own environment.

So, the personality is dividing himself/herself because of his/her narrow education, and he/she cannot love and appreciate oneself (his/her own life) and spiritually rise after inevitable frustrations at work or in life at all. The psychological projection can explain the self-pollution.

Spiritually miserable human being pollutes oneself by polluting his/her own natural environment. This is like a suicide.

However, when the person is aligning with nature and is searching for his/her own identity in his/her natural environment regarding his/her personal nature, he/she is able to resist the dividing and can create individual way of harmony by remaining in the existential and vocational harmony based on contrasts of nature.

All that is unavoidably experienced at the level of sub-consciousness and can be integrally united at least semiconsciously. Harmony of the personality naturally requires the comprehensive approach. Only the science and higher education can develop this approach and give meaning to it.

The development of the natural professional vocation of a skilled seaport worker relates to the existentially ecological improvement of all his/her personality's powers, also including less obvious powers of nature, which are forgotten, suppressed, underdeveloped or not recognized in the popular culture of fast and superficial professional activity.

Conclusions

The environment of the seaport as a seashore helps the personality perceive oneself in his/her own natural existence, discover the anthropological similarities and human symbols of the seashore related to the natural human ambivalence.

The seashore marks dualism because there are two elements - the land and water. At the same time it expresses the integral existential individuality of the human being.

The personality of a skilled seaport worker is unique because he/she is professionally implementing himself/herself in the psychological tension of special own relationship with nature, which expresses the dynamics between the body and soul.

Although a skilled seaport worker is limited by his/her work and cannot be delighted with the sea-horizon, however he/she is working on the seashore and is able to perceive its limit, which has created civilizations and their histories.

The educated seaport worker is not a primitive functionary. He/she is creative because of higher education, which can enrich the personality, so that he/she becomes able to notice the products, which are created by the long-term culture of the world processes.

The seaport symbolizes the human professional development from the anthropomorphic point of view. Technological development of the seashore relates to the personality, which in oneself develops the culture of professional competences.

When the person is aligning with nature and is searching for his/her own identity in his/her natural environment regarding his/her personal nature, he/she is

able to resist the personal dividing and can create individual way of harmony by remaining in the existential and vocational harmony based on contrasts of nature.

The results of the research can be applied by preparing skilled seaport workers at the anthropological, psychoanalytical and ecological levels.

References

- Beckenhausen, E. (1995). *Schiffahrt in der Weltliteratur. Ein Panorama aus fünf Jahrtausenden*. Kabel, Bremerhaven.
- Beresnevičius, G. (2002). *Ant laiko ašmenų*. Aidai, Vilnius.
- Chiesa, C. (2014). On the Seashore of an Endless World. Children Play: Using Transactional Analysis in Play Therapy with Children. *Transactional Analysis Journal*, 44, 128-141.
- Corbin, A. (1994). *Meereslust. Das Abendland und die Entdeckung der Küste*. Fischer Taschenbuch, Frankfurt am Main.
- Durkheim, E. (2007). *Die elementaren Formen des religiösen Lebens*. Verlag der Weltreligionen, Frankfurt am Main.
- Freud, S. (1930). *Das Unbehagen in der Kultur*. Internationaler Psychoanalytischer Verlag, Wien.
- Goldschmidt, G. A. (2003). *Als Freud das Meer sah*. Ammann, Zürich.
- Jovaiša, L. (2001). *Ugdymo mokslas ir praktika*. Agora, Vilnius.
- Kaufmann, J. C. (2006). *Frauenkörper – Männerblicke. Soziologie des Oben-ohne*. UVK Verlagsgesellschaft, Konstanz.
- Lileikis, S. (2011). *Kultūrinės ir psichosocialinės jūrinės edukacijos metodologiniai metmenys*. Klaipėdos universiteto leidykla, Klaipėda.
- Lileikis, S. (2015). *Jūrinės savivokos formavimosi kontūrai: asmenybės vertingumo linkmė*. Lietuvos aukštoji jūreivystės mokykla, Klaipėda.
- Mega, V. P. (2016). *Cities by the Sea: Ideas and Innovation, Science and the Arts*. Springer, Heidelberg, New York.
- O'Connor, K. (2016). Imagining and Consuming the Coast: Anthropology, Archeology, 'Heritage' and 'Conservation' on the Gower in South Wales. *Imagining Landscapes - Past, Present and Future*, 121-142. Routledge, London, New York.
- Schmid-Höhne, F. (2006). *Die Meere in uns. Eine psychologische Untersuchung über das Meer als Bedeutungsraum*. Centaurus Verlag, Herbolzheim.
- Tenzer, E. (2007). *Einfach schweben. Wie das Meer den Menschen glücklich macht*. Marebuchverlag, Hamburg.
- Wirth, H. J. (2004). *9/11 as a Collective Trauma and other Essays on Psychoanalysis and Society*. Psychozial-Verlag, Gießen.

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Saulius Lileikis is a doctor of social sciences, associate professor at the Port Economics and Management Department of the Lithuanian Maritime Academy. *Direction of scientific interests* is a cultural and psychosocial dimension of maritime affairs. *Scientific monographs*: 1. Youth Altruistic Education: Socio-cultural Context. Socialization Perspective of the Personality (2007). 2. Methodology of Cultural and Psychosocial Maritime Education (2011). 3. The Outline of the Maritime Self-concept Development: Direction of the Personality Value (2015). Address: I. Kanto str. 7, LT-92123 Klaipėda. Phone: 8 652 08 106. E-mail: s.lileikis@lajm.lt



SALES MANAGEMENT IN RANGE OF SUPPLY AND STORAGE OF UAB „ZEELANDIA“

Sergėjus Malininas¹, Violeta Docienė², Jolanda Daubarienė², Antanas Vaitiekus²

¹UAB „Zeelandia“, ²Klaipėda State University of Applied Sciences

Annotation

Two important aspects of sales management - supply of goods to customers and storage has been studied in the article. According to theoretical sources, warehouse management optimization solutions are needed not only for large companies, such as distribution centers or storage companies. The fact that a company is small or medium does not impact on lower requirements from customers or suppliers. The company must be able to remain competitive in its field of activity, which means that logistics is a very sensitive issue. It depends on the logistic how many potential customers will get the product and in which way. The object of the research - UAB Zeelandia belongs to an international group of companies. The company serves regions of Lithuania, Latvia and Estonia. Its main activities are: production of margarine, packaging of fats, production, sales and distribution of food enhancers, stabilizers and other ingredients, various fruit fillings and technical oils. The company started its activity in 1995. The main office is located in Klaipėda. The main warehouses of the company are in Kaunas. Zeelandia has 19 employees. An empirical study of sales management of Zeelandia UAB revealed that, in essence, the supply of goods in the company was organized efficiently. However, during the study, aspects to be improved were noticed, especially in communication with customers and IT application. The company's warehouse lacks integration into the overall business of the company, because the computer program used in it is not related to other divisions of the company. This reduces the performance of the warehouse.

Based on the conclusions of research it is suggested to integrate e-commerce into the goods ordering process, to install one business management computer program integrating all departments of the company.

KEYWORDS: Sales management, supply, storage, processes, development.

Introduction

It is important for each company to ensure the exclusivity of the products supplied to the market, the competitive advantage and keep relationships with existing consumers.

Sales management covers a wide range of activities starting from assortment formation, goods warehousing to shipping and delivering to the customer. In order to increase sales, it is important that all elements of this process are properly coordinated and managed, as this ensures a continuous sales process, which in turn increase company's competitiveness and efficiency of activity. The relevance of the topic of sales management is confirmed by the fact that this field of activity is being analyzed by many authors: Darškuvienė V., Cibulskytė A. (2007), Lodienė D. (2012), Sarulienė A., Vilkas M. (2011), Zavadskis M. (2014). Storage processes, stocks and distribution are widely analyzed by Meidutė I. (2012), Paulauskas V. (2005) and Palšaitis R. (2010).

UAB Zeelandia is operating in a tight competition market. Main competitors of the company in Lithuania are UAB "Vilniaus margarino gamykla" and UAB "Minordija". In order to survive in the market, UAB Zeelandia has to have a competitive advantage that would ensure better satisfaction of consumers' needs, and, consequently, the growth of sales revenue. Effective sales management enhances the company's competitiveness, therefore the purpose of analyzing supply and storage management of UAB Zeelandia is solving the problem of tight competitiveness.

Research goal – to analyze assortment formation and management in production company.

Research targets:

- 1) To explore employees and customers' opinion to estimate the assortment management of margarine and other nutrition ingredients for bakery industry.
- 2) To explore company's assortment policy and management.

Research methods: comparative analysis of information source, company's data compilation and analysis, structured interview, written poll.

Theoretical aspects of goods supply and storage management

In order to optimize sales management, it is necessary to deliver goods or services in the right amount, in time and for a right price. Proper supply management is essential for this purpose. In a division of labour based market economy the supply of goods is a necessary economic activity linking the production of goods with their consumption.

According to Dudėnas (2006), supply, in general, can be described as the distribution of goods to consumers. According to Kotler & Keller (2007), supply is the activity that makes the product accessible to end users. The product moves from manufacturer to end user usually via intermediaries. The main goal of the supply process is to deliver the item to the end user at the right time and in the right place. Pranulis and others (2013)

suggests the perception of the distribution system by taking advantage of the matrix (Table 1), in which the processes in the distribution sphere are linked to elements describing the gap between the producer of the product and its user.

Table 1. System of distribution functions

Distribution processes	Elements of the gap between producer and user			
	Place	Time	Quantity	Quality
Flow of real goods	<i>Goods' motion from producer to user</i>			
	Territorial relocation	Storage	Accumulation, distribution, delivery of items	Sorting, preparation, assortment formation, marking.
Flow of nominal goods	<i>Payment instruments move from user to manufacturer</i>			
	Territorial relocation	Crediting	Accumulation and payment distribution	Settlement method and guarantees
Information flow	<i>Movement of data of real and nominal flow of goods between the manufacturer and the consumer</i>			
	Territorial data transmission	Data collection	Collection and distribution of information	Data linking, interpreting, additions

Source: Pranulis (2012), p. 278.

According to Žvirblis (2005), the main task in shaping the distribution channel is to create a structure that satisfies all participants of the channel who has their settled goals and a diverse market interest. It can be stated that supply is a very wide category covering not only suppliers but also carriers, warehousing and other intermediaries and the customer.

According to Pašaitis (2010), supply management is a strategic planning tool used to increase customer satisfaction, which increases both the competitiveness of enterprises and profitability. Meanwhile, Beniušienė, Stankevičienė (2007) as the main idea of supply management identifies the point that whole process must be perceived as a unified system. The activity of each element of the system affects the operation of the entire system. According to Lodienė (2012), time management is very important in organizing supply. This is one of the most important competitive advantages: goods and necessary for production raw materials to deliver fast, reliably and on time.

According to Pranulis and other (2012) specialists, when choosing goods delivery channel, the manufacturer must decide on the length and width of the distribution channel, the character of cooperation with the channel participants.

All product delivery channels used by the manufacturer to provide it to the consumer constitute a product presentation system. The company, when developing its own distribution system, must provide specific intermediaries for each distribution channel with which they will cooperate.

The optimal number of dealers is associated with the development of a company's sales strategy. The choice of the strategy option depends on the characteristics of the product, sales objectives and scope, company's marketing strategy, positioning of the product, characteristics of competitors' activities, desirable control level on the activity of intermediary and so on.

It is important to ensure that product is delivered to consumer in the shortest possible time to ensure better satisfaction of users' needs. From customer's point of view, the delivery term is time from the moment order is placed up to the moment product is delivered at place, which becomes increasingly strategic in the competition battle. Customer's order gives an impulse to the logistics system of the producer for starting operating. The speed and quality of information flow affects system costs and customers' service efficiency. Due to poor communication, customers are being lost, transportation costs, storage costs and costs of raw material management are increasing. One of the key steps in customer service before the contract is the effective acceptance of orders. It includes the simplicity of the acceptance of the order and the time of response to requests (Fig. 1):

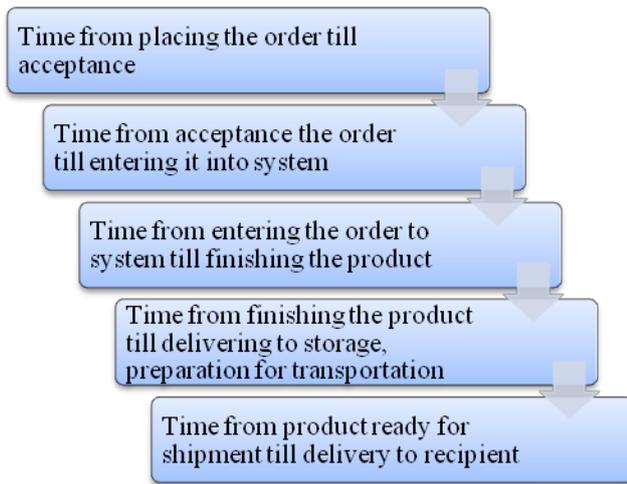


Fig. 1. Order cycle

Source: Zinkevičiūtė, Vasiliauskas (2013), p.103.

The motion of material flows is impossible without concentrating the necessary stocks to the intended places; these stocks are stored in specially built infrastructure facilities - warehouses that are an integral part of the logistics system. Warehouses in logistics processes becomes more important quality wise, because here goods are not only stored, but often redistributed, repacked, and sometimes their partial preparation (processing) is performed (Paulauskas 2005).

Warehouses are a specific place or unit in a logistics system where raw materials, semi manufactures or ready products are stored for a certain period of time.

Warehouse logistics is distinguished by the fact that it is a connecting link between manufacturers and retailers. It is characterized by big and intensive flows of goods, their concentration, appropriate processing and distribution to retail outlets (Sližienė, Zaukas, 2013).

The main advantage of company's own warehouse is the high turnover of goods, it means large flows of goods coming in and out of the warehouse. In your own warehouse, better goods protection and storage conditions can be created to avoid unforeseen losses. It is advisable to install load handling mechanisms, to develop automated storage systems, as this increases the productivity of employees and reduces storage costs per storage unit. All this strengthens company's competitiveness (Meidutė, 2012). According to Paulauskas (2005), having a relatively small range of goods it is possible to have a warehouse - distribution center. In this warehouse the goods are accepted, checked, stored, distributed, according to the necessity of supply, prepared and sent to the addressees. They usually belong to one company that produces one or several types of products, spare parts, etc. (e.g. electronics, computers, etc.).

Palšaitis (2010) emphasizes the importance of interaction between warehouse, the whole company and the supply chain on the result of effectiveness. He also provides six logistic principles that can increase the efficiency of warehouse economy (Fig. 2).

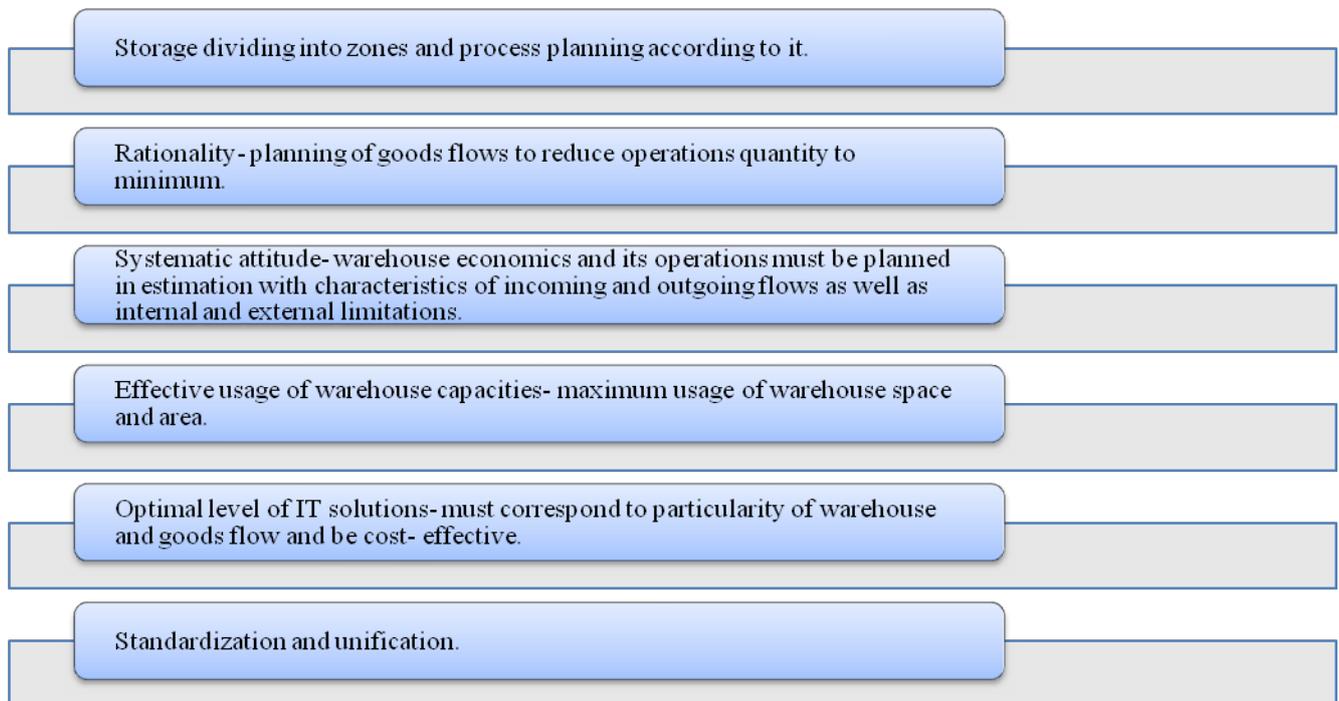


Fig. 2. Principles for increasing the efficiency of storage processes.

Source: created by authors (according to Palšaitis, 2010).

Summarizing the theoretical aspects of supply and storage management, it must be emphasized that it is still a popular belief that warehouse management solutions are needed for large companies such as distribution centers or warehousing companies. However, the fact that

a company is small or medium does not mean that it has lower customer requirements or has beneficial contracts with its suppliers. On the contrary, the company must be able to remain competitive in its field of activity, which means that logistic is a very sensitive part in this

company. It depends on the supply of goods how many potential customers will get the product and how it will occur. Only with the right choice of suppliers', safety of the company can be guaranteed and satisfaction of customers' needs can be ensured. Each company has a specific activity therefore they handle supply costs differently. Stocks should be minimal, but it must ensure an economical and continuous working process, therefore a well-performed storage system must be created, which is conditioned by the flexibility of production, shorter time to fulfil the order, and quality control. The main feature of a logistics warehouse is that they take full responsibility for supplying inventory stocks at the right amount, at the right time and at the right price. The company's management processes can not end with the management of assortment of goods, supply or storage of goods, it is necessary to develop an appropriate sales strategy and implement it. Implementation of newest technologies and sales strategy can assure an effective management of goods' supply and storage.

UAB "Zelandia" supply and warehousing management

Research methodology. The following methods were used in the research: comparative analysis of information source, company's data compilation and analysis, structured interview, written poll.

The analysis of information sources compares the opinions of different scientists.

It is important to have a general opinion regarding company's sales and sales management before starting a research of supply and warehouse management of UAB Zeelandia. For this purpose, methods of company's data collection and analysis were used. Based on the company financial statements and other internal documents, the structure of company's product range has been analyzed, also methods of supply and storage were estimated.

Opinion of UAB Zeelandia employees was estimated when analyzing aspects of sales management, supply and storage. Structured interview method was chosen to analyze employees' opinion and written poll for customers' estimation research. In this way, research was made quality wise and quantity wise. The aim was to estimate an opinion of employees, who are most involved in sales management process, regarding management of supply and storage in UAB Zeelandia. Structured interview was chosen for this purpose. Five employees were interviewed applying research method quality wise: director, production and sales managers, also confectionery and bread technologists. A questionnaire was prepared for structured interview and questions were formulated in a way to allow a thorough assessment of

the employees' opinion on the analytical issue. During the interview, conversation was recorded using a dictaphone, and later on collected data were analyzed and compared with each other. The opinion poll of UAB Zeelandia employees involved in sales management lead for a better understanding of sales management from within the company and to form an opinion on its effectiveness.

In order to assess how sales management of UAB Zeelandia affects its activity results and sales, it is important to determine how company's customers value individual items of sales management. Written poll was chosen for this purpose as a method quantity wise. A questionnaire was prepared for the research and sent to company's customers by e-mail. The survey was attended by all 24 permanent clients of the company not only from Lithuania but also from other countries, therefore the questionnaire was translated into English. The questionnaire consisted of 15 questions, most of them were closed.

Analysis of the research results. A theoretical analysis of the topic has showed that well-running supply organization and storage of goods is an important factor in effective sales management. Therefore, it is important to analyze how supply of goods and their storage is organized at UAB Zeelandia. UAB Zeelandia actives in the industrial market and all its customers are production companies. For this reason, company must strictly control supply of goods and control its delivery in time and properly in order to meet its customers' needs as good as possible. Only strict abidance of terms of the contract ensures customer loyalty to the company. UAB Zeelandia in an effort to provide its products as fast as possible and in a convenient way for its customers, continuously optimizes the supply process. Optimizing supply of goods, company is looking for alternatives that allow to supply goods at minimum cost and time for the consumer. Company's managers focus on personal communication with customers, so they chose to supply directly. Zeelandia sells goods to Lithuanian and foreign customers - bread and confectionery production companies. In this way, it can be stated that company's supply channel is short, which, in turn, provides easier communication with customers.

Delivery of the product starts when order is received from customers. According to Zinkevičiūtė, Vasiliauskas (2013), it is important to provide a customer with a convenient and easy accessible ordering system. For this reason, it is important to estimate ways of getting orders in UAB Zeelandia. Company employees note that most orders are placed by phone or online (Table 2).

Table 2. Order acceptance according to valuation of UAB Zeelandia employees

Category	Subcategory	Quotes from the interview
Way of placing an order	By phone	"Most often, customers contact the company by phone" # 2. "Placing orders by phone is the most convenient for customers" # 3. "I would say that we usually receive orders by phone" # 4
	By e-mail	"Recently, many orders are sent by e-mail" # 1. "The best way to place an order is the internet" # 5

Opinion of the company's customers on this issue coincides with the opinion of employees (Fig. 3). Placing orders by phone and online are almost equally popular ways. 57% respondents place orders to Zeelandia by phone while remaining 43% choose a more advanced ordering option - online.

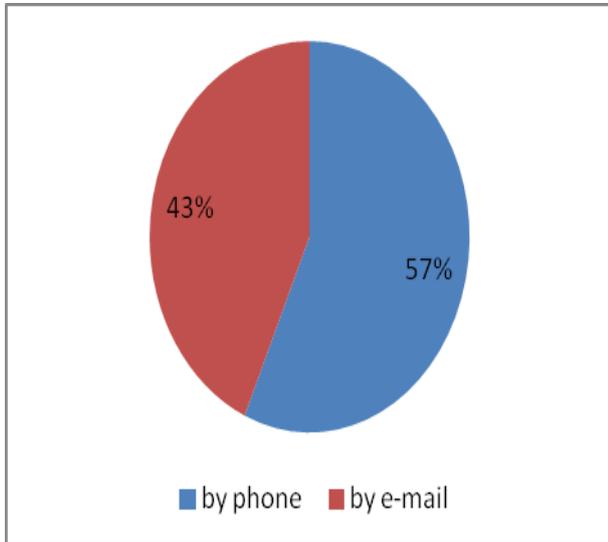


Fig. 3. Ways of placing orders used by UAB Zeelandia clients (in percentage).

When analyzing order placing system in the company, it is worth noticing that company's customers has no possibility to place orders directly online. Company communicates with customers only by e-mail. Meanwhile, recent trends of importance of IT are becoming increasingly evident, and, as a result of focusing on innovative activities, it is appropriate to fill this gap. In addition, accepting orders by phone reduces work costs and the possibility for mistakes.

The relevance for development of ordering process is also illustrated by the results of customer survey, which revealed that more than half respondents think that placing orders in the company is only partially convenient (Fig. 4).

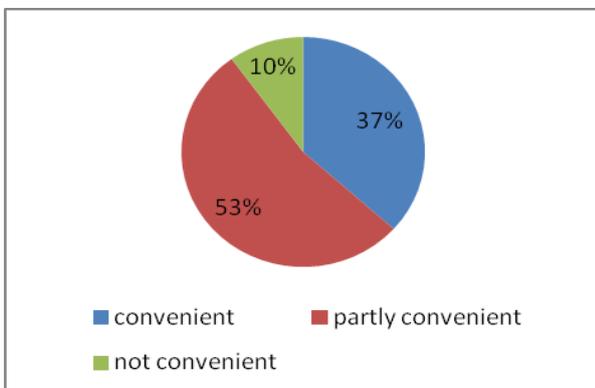


Fig. 4. Estimation of convenience of way placing an order for UAB Zeelandia (in percentage).

Taking into consideration that not all customers (Figure 5) are fully satisfied with the convenience of placing order possibilities, it is advisable to look for opportunities to improve ordering possibilities. Using today's well-developed technologies, the creation of an online ordering system should best meet of customer needs while optimizing the process of ordering and realization of the order in company.

Company's customers are large enterprises, for whom UAB Zeelandia is a supplier of raw materials, therefore they carefully schedule orders of raw material in advance. Due to the specificity of UAB Zeelandia, the company does not have a large number of orders. As the survey showed, customers usually submit orders several times during a half year (Fig. 5).

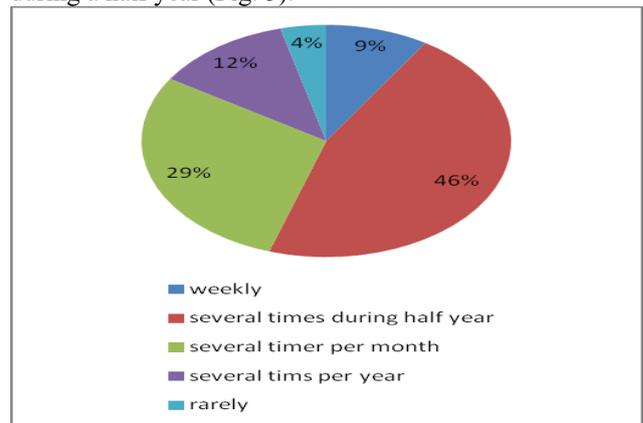


Fig. 5. Frequency of submitting orders at UAB Zeelandia (in percentage).

Although orders are not very frequent, however, each individual order is big enough. Since orders are big, it's important to combine all activities inside the company to ensure that the realization of order runs fluently and steady. According to the survey data, UAB Zeelandia usually manages to deliver orders properly (Fig. 6).

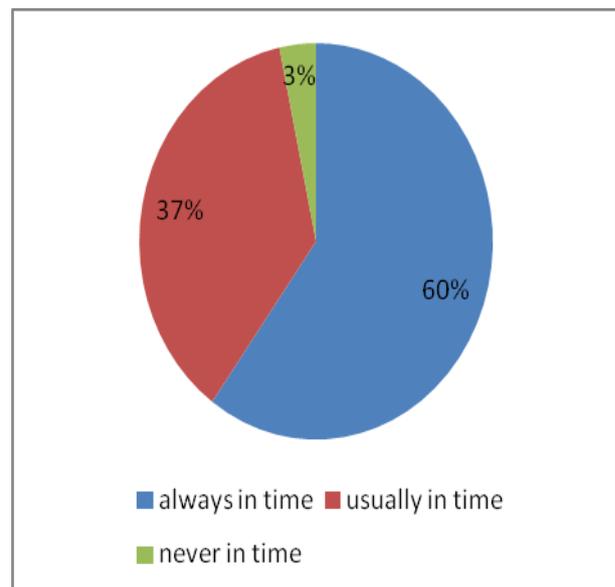


Fig. 6. Receiving orders from UAB Zeelandia in time (in percentage).

Such survey results show that delivery process of UAB Zeelandia is mainly running smoothly, which allows to minimize time of delivery to the client and strengthens customer's confidence. However, the fact that company does not use the opportunity provided by nowadays IT solutions at the stage of getting an order is negatively assessed.

In order to ensure proper production supply, it is necessary to take care of production storage processes, because delivery time and mistakes occurrence realizing orders depends a lot on the effectiveness of storage organization in the company.

UAB Zeelandia pays big attention to storage processes. The company owns its own warehouse next to

the production facilities and ready products are quickly moved to warehouse. Whole territory of the company is carefully planned, providing storage sites for all raw materials, product, chemical materials, waste and directions of movement. Thorough production traffic planning and consistent storage ensure an order in the company's warehouse and allows realize orders promptly upon request.

Warehouse order is evaluated by company's employees as main advantage of storage process (Table 3). Many interviewed employees identified the lack of an integrated warehouse management program as one of main problems in storage. Most respondents agreed that this would increase the efficiency of warehouse.

Table 3. Storage process at UAB „Zeelandia“ according to employees evaluations

Category	Subcategory	Quotes from the interview
Advantages of storage process	An orderly and planned stock movement	"The company's raw materials, production and waste flows are not chaotic but based on a pre-planned movement scheme. It is understood by the employees, therefore quickly orienting" # 1. "Our warehouse and all its processes has a special order. This is very beneficial as it reduces the work costs, increases the efficiency" # 2. "In the enterprise there is not only a production movement scheme in the territory of company, but also all employees consistently follow it" #5.
	Optimal warehouse size	"... in addition to the warehouse it is neither too small nor too big, very well meeting needs of the company" # 1
	Good work coordination	"The actions of production workers are very well coordinated with each other, which increases their productivity" # 4
Disadvantages of storage process	Lack of integrated computer software	"Company does not have a single computer program covering all processes inside it. For this reason, warehouse acts in isolation in terms of information." # 2. "Warehouse connection with production unit and other departments with the help of a computer program should increase its efficiency" # 3
	No disadvantages	"I would say that the production storage process in the company is very well-finished, everything takes place in optimal work and time costs. I do not notice any flaws." #1

To summarize the analysis of the management of supply and storage in UAB Zeelandia, it can be argued that, in general, the supply of goods in the company is organized quite well. Many respondents indicate that they receive orders from UAB Zeelandia quickly and in time. Study found out that buyers can place orders only by phone or by e-mail, while there is no possibility to order products directly online, as an online store. Implementation of new IT solutions would not only facilitate process of placing an order, but would also reduce Zeelandia's work costs and the possibility for mistakes. It was determined during the analysis of production storage processes, that UAB Zeelandia has a well-planned stock movement scheme, staff consistently follows it, thus ensuring the order in the warehouse and its higher efficiency. However, company's warehouse lacks integration into the overall business of the company, because the computer program used in warehouse is not related to any other divisions of the company. This reduces the performance of the warehouse.

Conclusions

Summarizing the research following conclusions can be made:

After analyzing the theoretical aspects of sales, supply and warehouse management, it can be argued that the result of a company's operation and satisfaction of users' needs depends on a well-organized storage system. Individual solutions are used to increase the efficiency of storage, and various management models are used to increase the efficiency of warehouse operations.

After studying the management of supply and storage of UAB Zeelandia, it was found out that supply of goods in company is organized well. Many respondents indicate that they receive quickly and in time products ordered at UAB Zeelandia. However, the study found out that buyers can place orders only by phone or by e-mail. There is no possibility to order products directly online, as an online store. It was determined during the analysis of production storage processes, that UAB Zeelandia has a well-planned stock movement scheme, staff consistently follows it, thus ensuring the order in the warehouse and its higher efficiency. However, company's warehouse lacks integration into the overall business of the company, because the computer program used in warehouse is not related to any other divisions of the company. This reduces the performance of the warehouse.

Based on these conclusions, the following suggestions are available to improve sales management of the company:

Integration of e-commerce into the process of ordering goods;

Installing one business management computer program integrating all departments of the company.

References

- Andriuščenka J. *Strateginės vadybos metodologijos plėtotė: dabarties vertinimas ir tendencijos*. Management Theory & Studies for Rural Business & Infrastructure Development, 2008, Vol. 13 Issue 2.
- Bazaras D. (2006). *Logistikos sistemų raida ir logistikos paslaugų rinkos perspektyvos Lietuvoje*. Konferencija „Transbaltica 2006“, Vilnius, Technika.
- Benišienė I., Stankevičienė J. *Logistikos vaidmuo tiekimo grandinėje. Ekonomika ir vadyba: aktualijos ir perspektyvos*. Šiauliai Šiaulių universitetas, 2007, Nr. 1 (8).
- Daršukvienė V., Cibilskytė A. *Tiekimo grandinės valdymo efektyvumo ir listinguojamų kompanijų vertės sąsąjų tyrimas Lietuvoje*. Organizacijų vadyba: sisteminiai tyrimai. Kaunas, Vytauto Didžiojo Universitetas, 2007, Nr. 41.
- Diržytė A., Sondaitė J., Norvilė N. ir kt. (2012). *Verslo psichologija*. Vilnius, p.233.
- Diskienė D., Korsakienė R., Česnyienė R., Drūteikienė G., Smaliukienė R., Stankevičienė A. (2015). Verslininkų vadybinis potencialas ir smulkaus ir vidutinio verslo įmonių internacionalizacija. Vilnius, Vilniaus universitetas, p.376.
- Dugdale K., Lambert D. (2008). *Sumanesnis pardavimas*. Vilnius, UAB „Verslo žinios“, p. 233.
- Išoraitė M. *Pardavimo skatinimo tyrimas prekybos centruose*. Verslo sistemos ir ekonomika. Vilnius, Mykolo Romerio universitetas, 2013, Nr. 3 (1).
- Juraitė K. *Lyginamieji tyrimo metodai: nuo intensyvaus ir ekstensyvaus prie visapusiško tyrimo*. [interaktyvus], [žiūrėta, 2017 m. balandžio 28 d.]. Prieiga per internetą: http://fcis.vdu.lt/~z.lydeka@adm.vdu.lt/KJuraitė_paskaita%20ISM%202.pdf
- Kaknevičiūtė G., Vasilienė-Vasiliauskienė V. *Gamybinės įmonės sandėliavimo procesų analizė ir tobulinimo sprendimai*. 18-osios Lietuvos jaunųjų mokslininkų konferencijos „Mokslas – Lietuvos ateitis“ teminė konferencija. Verslas XXI amžiuje, 2015 m. vasario 5 d.
- Kotler Ph., Keller K. L. (2007). *Marketingo valdymo pagrindai*. Klaipėda, Logitema, p.436.
- Lewy M., Weitz B. (2008). *Retailing Management*, 7-ed. - McGraw-Hill, Irwin, p. 225.
- Lodienė D. *Globalios tiekimo grandinės įtaka verslo organizacijai*. Vadybos mokslas ir studijos – kaimo verslų ir jų infrastruktūros plėtra. Kaunas: Aleksandro Stulginskio universitetas, 2012, Nr. 32.
- Meidutė I. (2012). *Logistikos sistema*. Vilnius: Technika, p.164.
- Morgan M., Levitt R. E. (2009). *Strategijos įgyvendinimas. Kaip ją išskaidyti ir įvykdyti*. Vilnius, UAB „Verslo žinios“, p.186.
- Pajuodis A. (2005). *Prekybos marketingas*. Vilnius, Eugrimas, p.391.
- Palšaitis R. (2010). *Šiuolaikinė logistika*. Vilnius, Technika, p.336.
- Paulauskas V. (2005). *Logistika*. Klaipėda, KU leidykla, p.288.
- Pranulis V., Pajuodis A., Urbonavičius S., Virvilaitė R. (2012). *Marketingas*. Vilnius, Garnelis, p.608.
- Rakickas A., Čiegis R., Skunčikienė S. *Management of Supply Chain Processes and the Adaptability Research in Industrial Food Production Companies*. Organizacijų vadyba: sisteminiai tyrimai. Kaunas: Vytauto Didžiojo Universitetas, 2009, Nr. 52.
- Rysev N. (2007). *Aktyvūs pardavimai*. Vilnius, Eugrimas, p.416.
- Sarulienė A., Vilkas M. *Efektyvumo ir lankstumo suderinimas tiekimo grandinėje*. Ekonomika ir vadyba. Kaunas: Kauno technologijų universitetas, 2011, Nr. 16.
- Slišienė G., Zaukas G. (2013). *Logistikos operacijų vadyba*. Kaunas, Technologija, p.61.
- Stankevičienė J., Urbanskienė R. (2008). *Marketingo organizavimas: praktiniai sprendimai*. Kaunas, Technologija, p.105.
- Šerėnaitė A. *Sėkminga pardavimo strategija – be žmonių nė iš vietos* [interaktyvus], [žiūrėta, 2017m. balandžio 28 d.]. Prieiga per internetą: <http://vz.lt/article/2014/11/25/sekminga-pardavimo-strategija-be-zmoniu-ne-is-vietos>.
- Valentinavičius S. *Verslas: teorija ir praktika*, 2009, Nr. 10 (2). *Verslo strategijos formavimo įmonėje teoriniai aspektai*.
- Virvilaitė R. (2007). *Marketingo valdymas*. Kaunas, Technologija, p. 112.
- Zavadskis M. (2014). *Menas parduoti*. Vilnius, Eugrimas, p.390.
- Zinkevičiūtė V., Vasiliauskas A. V. (2013). *Gamybos logistika, gamybos vadyba*. Klaipėda, S. Jokužio leidykla-spaustuvė, p. 250.
- Žutautienė J. (2011). *Pardavimo organizavimas*. Kaunas, VITAE Litera, p. 76.

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Sergėjus Malininas, UAB „Zeelandia“, sales manager. Field of scientific research: Management of business processes and organizations. Carried out scientific research: Development potential of UAB „Zeelandia“ sales management. Address: Svajonės g. 11, LT-94101 Klaipėda, Lithuania, phone: +37066223319, sergejusmalininas@zeelandija.lt

Violeta Docienė, lecturer, Klaipėda State College. Field of scientific research: Management of business processes and organizations.

Scientific publications: “Evaluation of UAB „Yazaki Wiring Technologies Lietuva“ organizational culture”, Regional formation and development studies: journal of social sciences. Klaipėda: Klaipėdos universiteto leidykla. ISSN 2029-9370. 2016, no. 2 (19), “Study of organizational culture of organizations of Lithuanian capital and foreign capital in Klaipėda”, Regional Formation and Development Studies, 2014/2(13), Klaipėda University Social Science Faculty, “Impact of organizational culture on working environment of UAB „Yazaki Wiring Technologies Lietuva“, Mokslo tiriamieji darbai, Vadyba, 2013, Nr. 2(23), Klaipėdos universiteto leidykla, Klaipėda. Carried out scientific research: “Evaluation of UAB „Yazaki Wiring Technologies Lietuva“ organizational culture”, Development potential of UAB „Zeelandia“ sales management. Address: Jaunystės g. 1, LT-91274, Klaipėda, Lithuania, phone +37069907972, v.dociene@kvk.lt

Jolanda Daubarienė, lecturer, Klaipėda State College. Field of scientific research: Management of business processes and organizations.

Scientific publications: “Expression of organizational culture and social responsibility of UAB „Kretingos vandenys”. Regional formation and development studies: journal of social sciences. Klaipėda: Klaipėdos universiteto leidykla. ISBN 2029-9370. 2015, No.1 (15). “Competence of hotel’s administrator: viewpoint of Palanga hotels managers”. Respublikinės mokslinės praktinės konferencijos straipsnių rinkinys. 2014. ISBN 978-9955-645-56-6. Carried out scientific research: “Implementation of social responsibility and organizational culture in UAB „Kretingos vandenys“ organization”, “Development potential of UAB „Zeelandia“ sales management”. Address: Jaunystės g. 1, LT-91274, Klaipėda, Lithuania, phone +37069907972, j.daubariene@kvk.lt.

Antanas Vaitiekus, lecturer, Klaipėda State College. Field of scientific research: Management of business processes and organizations. Scientific publications: “Evaluation of UAB „Yazaki Wiring Technologies Lietuva“ organizational culture”, Regional formation and development studies : journal of social sciences. Klaipėda : Klaipėdos universiteto leidykla. ISSN 2029-9370. 2016, no. 2 (19), “Study of organizational culture of organizations of Lithuanian capital and foreign capital in Klaipėda”, Regional Formation and Development Studies, 2014/2(13), Klaipėda University Social Science Faculty, “Impact of organizational culture on working environment of UAB „Yazaki Wiring Technologies Lietuva”, Mokslo tiriamieji darbai, Vadyba, 2013, Nr. 2(23), Klaipėdos universiteto leidykla, Klaipėda. Carried out scientific research: “Evaluation of UAB „Yazaki Wiring Technologies Lietuva“ organizational culture”, “Development potential of UAB „Zeelandia“ sales management”. Address: Jaunystės g. 1, LT-91274, Klaipėda, Lithuania, phone +37069907972 a.vaitiekus@kvk.lt



VIRTUALICS: WHERE DID THE DIALECTIC?

Stasys Paulauskas

Strategic Self-Management Institute

Annotation

In this article author presents created and used in practice formalised development modelling theory Virtualics, which was applied for recognition of historic path of human world outlook from Physics, Metaphysics to Dialectics and Virtualics. It named on rhetoric question “Where did the dialectics?”, which means the lack of existing methodological knowledge to give opportunities to forecast future of societal life. In the article are presenting Humanity’s mental innovation virtual model, main trichotomies of the form and the content of World outlook change. Author shows how dialectical quality leap was transited to logical element 0-1, 1-0 of computing system, cybernetics used dialectical approach for virtualisation of World’ relations in computers and internet. Developing from 1980th years Virtualics is successfully applied for recognition, modelling and innovation of large scale macro and micro transition processes. Author shows how it could be useful in recognition, positioning and sustaining of nowadays scientific, political, economic, and other challenges.

Key words: world outlook; physics, metaphysics; cybernetics, virtualics; innovation.

Introduction

Challenges of globalization, stagnation of economy, stopped development, blind virtualization, religious wars and human insecurity faces the problem of uncertainty of social being once again as it was many times in long Human history. In such historic breakthrough, as the lifebelt usually occurs a demand for new philosophical doctrines, approaches and World views pretended to explain the situation and find “a corner in a round room”. In this article, we present one of them.

The main problem of such research is the blindness of Humanity, disability to provide a future of homo sapiens sapiens race at least for few decades. Achievements of science and forecasting technologies in physical world are superb – human can extrapolate physical laws to the past and to the future for billions of years. But why nobody can’t to say reliably what is our nearest future of a social life?

From metaphysical point of view the answer is that humanity is too complex system, which is impacted by unlimited number of factors, to recognize and asses which the science is disable nowadays. Politicians, spirituious teachers and many irrational advisers tries to help, but unsuccessfully. At this regrettable situation, how to not remember the clever Dialectics, occurred in ancient time and purposive developed till end of Socialist system in 1990 when the Soviet Union was destroyed. Buddha, Heraclitus, Galileo Galilea, Georg Hegel, Friedrich Engels, Karl Marx and large constellation of materialist dialectics worked out not only dialectical world outlook, logic and ethics, but such theoretical approach was applied and was the main mode of life not only in Soviet Union, but in one sixth part of the World during 73 years (from 1917 till 1990).

But the try to apply dialectical approaches to societal life was unsuccessful. The Soviet Union and overall socialist community was destroyed. At the same time the dialectics was named as wrong cognition tool. And the World returned to the state of blindness with decision to not try to forecast a Future again. Dialectics left in universities as historical error and not appropriate philosophical doctrine. No body of scientists tried to still use such many thousands of years developed world outlook. Except the author of such article.

In published in 1985-year article „Dialectical world outlook “was invented, that according to Rene Descartes discovered mathematics as criteria of scientific trout, the verbal dialectics should be formalised. The profession of radio-electronics engineering was very helpful to formalise dialectical leap with use of logistical function. Dichotomic, trichotomic and virtual quality models were created as tools for modelling of natural development processes. Dialectics as methodology of dichotomic relations was synthesised to the Virtualics as methodology able to model polytomic relations.

The main aim of the article is to present the World outlook virtual model in scope of its form, content and contradiction.

Main hypothesis is that World outlook is changing permanently in fixed direction and logics from verbal towards formalised tools.

Main subject of the article is the virtual modelling of World outlook, which discovers tendencies and logics of Humanity development.

Main tasks are:

1. To discover Human World’ outlook development general tendencies.
2. To discover conversion of Dialectics to Cybernetics.
3. To present some practical applications of Virtualics.

From the Physics to the Virtualics

Human ancestors – animals have mainly five senses with help of which they recognize and accepts the World: eyesight, hearing, taste, smell and touch. The World outlook, accepted by senses is Physical World. So, basic World outlook is physical world, given to us by our senses.

Genetical invention of the Speech, as the form of homo sapiens sapiens life quality leap, gave ground for Metaphysical world outlook, in which abstract monotomic (one side relation) *thing* was started to use as universal model of particularity. Manipulating with words as names of such things humans can model the World for own existence needs. Metaphysics is the methodology of unchanging World, because in ancient times human life and its surroundings changes were unexpectable slow. Metaphysical World model looks like a picture – it consists of things, which aren't interconnected, exist separately. So, why for many years this world outlook was acceptable for everyday life. The time scale is absent and it isn't need in this World model, because here no changes, no interactions and no any development. Having no time scale metaphysics is unable to forecast the Future and the Past is conserved only in their memories.

However real World in opposite to metaphysical approach is the Change. It looks like permanent flow of changes – the video movie, which consist of metaphysical pictures – cadres. General forces of attraction and pull destines permanent interaction of particularities – of things, during which the mater, the movement and the information is transiting from one to other side. Quantitative changes accumulate in to qualitative changes. This model of changing world was named as Dialectical, consisting of dichotomic – two-side relation. Formalization of the relation gave opportunity to operate with poly-side relation models, which resulted name of virtual World and the theory was named as Virtualics.

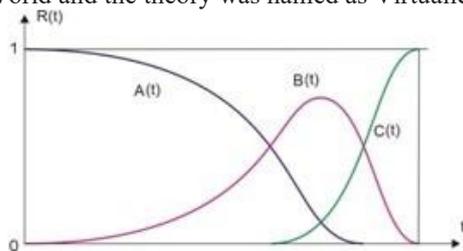


Fig. 1. Social relations' transition trichotomy (S.Paulauskas, 1985)

The virtual logics on help of trichotomic¹ virtual model (Fig.1) enables to construct the scope of essential changes of the form (Table 1.).

Table 1. World outlook form transition

Quality	Thesis	Antithesis	Synthesi s	Earnings
World view	Things	Things, them conditions and relations	Virtual relations	Forecast's opportunities
Coordinates	x-y-z	x-y-z+t	K-t	See tendencies
Element	Atom	Particle	Leap	Universality
Methodology	Scholastics	Dialectics	Virtualics	Sustainable development
Logics	Formal	Dialectical	Virtual	Virtual modelling
Ethics	Loyalty	Criticism	Love	Love
Models	Verbal	Formalised	Digital	Certainty

Human history is the process of mental innovation of World outlook as dichotomy of the Form of human activity $K_f(t)$ (Fig. 2), in which metaphysical approach is replacing by virtual.

Virtualics as quantifiable tool forms opportunities to change the content of human programming activity from verbal Politics to formalized Strategic Self-Management $K_c(t)$. Such innovations process is going on trough virtual trichotomies (Table 2).

Table 2. World outlook content transition

Quality	Thesis	Antithesis	Synthesi sis	Earnings
Activity	Natural economy	Specialised economy	Virtual	No property
Social relations	Autocratic	Democratic	Liberal	No borders
Interaction	Verbal	Economical	Virtual	Internationalisation
Transfer	Things	Money	Information	Manual work reduction
Law	Leader's power	Law	Virtual self regulation	No crimes
Organisation	National	State	World	No wars

Politics as verbal form of Self-Management of a society due to lack of formalised tools can't play function of purposive programming, implementation and monitoring of common actions on basis of physical and

¹ Virtual trichotomy means three side relation or formalised version of triade of Jonatan Fichte/ Georg Hegel - https://en.wikipedia.org/wiki/Thesis,_antithesis,_synthesis

metaphysical methodology. Virtualics due to formalised tools is able to formalise modelling of development processes and more efficient and purposive assure

sustaining and harmonisation of common activity of a society.

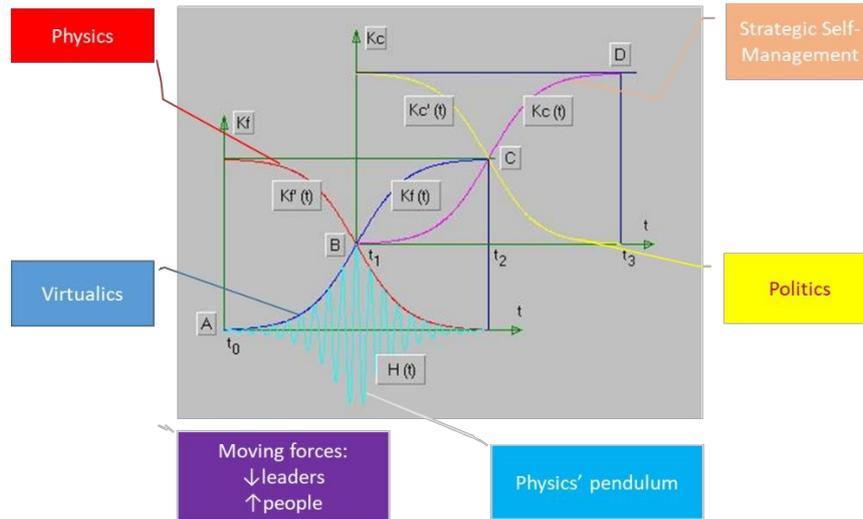


Fig. 2. Human's mental innovation virtual leap (S.Paulauskas, 1985)

The conversion of the Dialectics to the Cybernetics

Discovered verbal dialectical laws (quantity changes to quality, opposites interpenetrate, and negation of negation), dialectical relation, triade, dialectical logics, universality of quality leaps, scope of the form, the contents and contradiction of a system still as clever abstractions, which is very difficult to apply in practice except as means for political demagogy. So, verbal dialectics still without practical application till 1985.

Formalised quality of dialectical quality leap seems occurred independently from philosophical thinking in practical applications of electronic switches – logical Yes-No schemes in first electronic calculation machines.

Norbert Wiener - father of Cybernetics – created the science on management, managing systems, e.g. connections and information processes in life organisms, machines, technical systems and society in 1948. Dialectics was transformed to Virtualics – methodology of virtual modelling at 1985 by author of this article.

The work of each computer consists of 0-1, 1-0 transitions of quality leap. So, this device is the tool for modelling of transition processes by use of electronic switches. 0-1 is one **bit** of information. A virtual computer language Assembler was created, which uses symbols as combination of binary **byte** of information. Higher computer languages were created to manage modelling of changing reality. This combined by many quality leaps artificial visions named as Virtual reality.

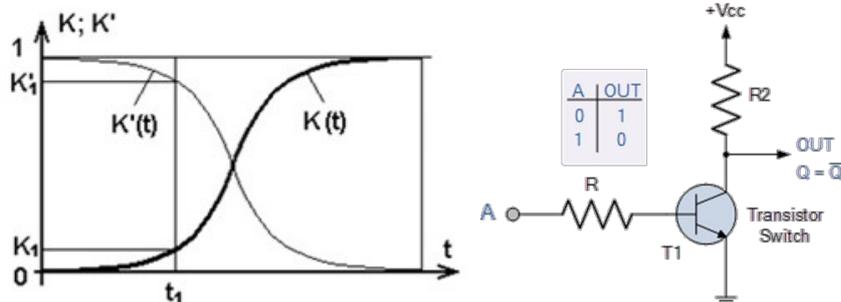


Fig. 3. Dichotomic virtual model and logical "Yes-No" Switch.

So, Virtualics discovered that dialectics was not disappeared, but it was formalised and materialised in rapidly growing computer networks and internet.

Practical applications of the Virtualics

However, the Virtualics could be used significantly larger, comparing to PC and internet applications. The Virtualics is modern Ontology, Methodology, Logics

and Ethics. It discovers unlimited opportunities for right positioning of World development trends. Virtualics is the reliable key for right positioning of science, politics, management, education, technologies, social relations and each other spheres of changing reality.

The Virtualics was born during the search of means for stop destruction of Soviet Union in 1980th years. In

1985 was occurred evidence, that this big society lost attraction and eccentric forces activated. The reason of that was decelerating growth of works productivity, showed stopping of innovation processes. In 1985 year constructed by author virtual model of Soviet Union showed destruction of the State in 1991. The forecast proved correct – the Soviet Union no longer.

The more, “the dirty water was drained and the child” – the Dialectics was doomed. Was it the big gnostic catastrophe? I don't think so. Because soviet materialist dialectic and historic dialectic left verbal and not appropriate for rational practical use. Political order and public opinion was turned against everything related to former Soviet Union for many years.

Formalisation of dialectics and creation of Virtualics was my sweet long target aim. I decided to establish private institute of scientific research and consultations in 1991, which was reregistered to Strategic Self-Management institute at 2002. The aim was to construct virtual global development spiral.

With proud I can state, that this work is going on successfully. Quality leaps of our Universe, of the Life, of the Human are just modelled. My students learn virtual models of transition of Technologies, Energy, Transport, Communication, Education, Health, Culture, Politics, etc.

Such trends we use for exceeding innovation activity as advance culture of European Union and Humanity. Knowing future progressive qualities, we can forecast – to invent future and to create business prior the market will be ready for its products and services. Following Bill Gates' and Elon Musk's exceeding of the time examples, students receiving tasks to become millionaires' trough design and implementation of innovation projects.

The profession of Genius was recognised and self-assessment tool on innovation abilities was created, which could be accessed at [iGenius](#) link.

Participating in European movement DiEM25 virtualics was applied to nowadays European Community development problem, which is quite like situation in former Soviet Union in 1990. The scientific article on such matter was published and disseminated trough this movement network. Unfortunately, dominating metaphysical methodological culture doesn't give any opportunities to humans to see real picture of changing world and find right solutions of actual challenges for now. The Virtualics was created to help on that.

Conclusions

In opposition to physical World the societal life is weak forecasting due to lack of reliable methodological tools and outlooks, what result blindness of Humanity face to challenges of globalization, stagnation of economics, stopped development, blinded virtualization and religious wars.

World outlook is developing from Physics, Metaphysics to Dialectics and Virtualics according to dichotomy of form of human mental innovation.

Formalisation is not only as indicator of scientific quality, but it is necessary synthetic stage development

of each past theoretic system, which joins different spheres of human activity. Formalisation of Dialectics occurred naturally trough conversion of verbal terms into virtual tools like dichotomy, trichotomy, virtual model of quality leap, joining the form, the content and contradiction of natural system.

Dialectics as methodology grounded on two-side relations is transforming into Cybernetics as universal model of quality leap implemented as electronic switch started virtualisation of human being in nearest future. Formalisation of Dialectics lead to creation of Virtualics, as formalised World outlook, development modelling methodology, logics and ethics.

Virtualics is universal methodology for positioning and modelling large scale macro and micro quality leaps and construct overall World development spiral, what is aim and practical achievements of author of the article.

In opposition to verbal political rite Strategic Self-Management based on virtual modelling is progressive quality and tool for modelling and sustain development of human societies.

The profession of Genius was recognised and self-assessment tool on innovation abilities was created, which could be accessed at [iGenius](#) link.

References

- Grant, Ted; Woods, Alan (2003), *Dialectical Philosophy and Modern Science, Reason in Revolt, Vol.2 (American ed.)*, Algora Publishing, ISBN 0-87586-158-X, retrieved 26 September 2010
- Grant, Ted; Woods, Alan (1995), *Reason in Revolt, Marxist Philosophy and Modern Science*, London: Wellred, ISBN 978-1-900007-00-9 text replication at [Marxist.com](#)
- Ernst Schumacher and Joachim Neugroschel. (1967-1968). The Dialectics of "Galileo". Vol. 12, No. 2 (Winter, 1968), pp. 124-133
- G.W.F. Hegel, *Phenomenology of Spirit*, translated by A.V. Miller with analysis of the text and foreword by J. N. Findlay (Oxford: Clarendon Press, 1977); Paragraph 179, Pg. 111.
- Norbert Wiener (1948), *Cybernetics: Or Control and Communication in the Animal and the Machine*. Paris, (Hermann & Cie) & Camb. Mass. (MIT Press) ISBN 978-0-262-73009-9; 2nd revised ed. 1961.
- Hollitscher, Walter (March 1953), "Dialectical Materialism and the Physicist", *Bulletin of the Atomic Scientists*, 9 (2): 54–57, retrieved 26 September 2010
- Lefebvre, Henri; John Sturrock (translator) (2009), *Dialectical Materialism*, Minneapolis, Minnesota: University of Minnesota Press, ISBN 978-0-8166-5618-9, retrieved 26 September 2010 First published 1940 by Presses Universitaires de France, as *Le Matérialisme Dialectique*. First English translation published 1968 by *Jonathan Cape Ltd.*
- Makstutis, A., Paulauskas S., Smaliukiene R. (2008). Harmonous development of the State and Society, *Vadybos šiuolaikinės tendencijos. Collection of scientific works*. General Jonas Zemaitis military academy. ISBN 978-9955-423-69-0. Vilnius, 2008. –P.175-184.
- Paulauskas S. (2016) Towards European Union Strategic Self-Management/ Management - Journal of Management. Lithuania business university of applied sciences, ISSN 1648-7974. Klaipeda, Lithuania. 2016, № 2(29). -P.51-56.

- Paulauskas S. (2015) Virtual self-assessment tool iGenius. <http://www.virtualika.lt/iGenius/>. Strategic Self-Management Institute, Klaipeda.
- Paulauskas, S., Paulauskas A. (2008). The virtualics and strategic Self-Management as tools for sustainable development, *Technological and economic development of economy*, Baltic journal on sustainability, Vilnius Gedimino Technical university. 008. 14(1): –P.76–88.
- Paulauskas, S. (2008). Sustainable security: the virtual approach, *Actual management tendencies*, Collection of scientific works. General Jonas Zemaitis military academy. ISBN 978-9955-423-69-0. Vilnius, 2008. – P.275-296.
- Paulauskas, S. (2000). Democratic Self-Management. How to improve the Governance of the State Lithuania/ *Collection of articles*. Joint Stock Company “Eksponte”. Klaipeda.
- Paulauskas, S. (1999). Self-Management Dialectics. Theory, methodology models, *Monograph*. Klaipeda University. Klaipeda.
- Paulauskas S. (1991) Dialectical Model of Democratic Revolution. “Lithuanian economy”, Nr.8. p.24-25.
- Paulauskas, S. (1989) Politology and Self-Management. “Time and events”, Nr.11, Vilnius.
- Paulauskas, S. (1985) Dialectical World Outlook. “Science and Technique”, Nr.11. p.24-26, Vilnius.
- William, C., Mitchell, Randy T Simmons. (2011). Beyond Politics. *Markets, Welfare and the Failure of Bureaucracy*, <http://www.independent.org/publications/books/summary.asp?id=34>

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Stasys Paulauskas, doctor of philosophy (applied sociology), professor, establisher and head of Public Institution Strategic Self-Management Institute (from 1991). Author and innovator of methodological systems Virtualics, Anthropogeny, Sociogeny, Technogeny, Strategic Self-Management, Responsible Energy, Sustainable Innovation, which are applied to fields of education, maritime, ITC, energy, business, culture, etc. through large scientific research and innovations and participation in international programmes of UNDP GEF, Leonardo da Vinci, Erasmus, Interreg IIIa, South Baltic and Baltic Sea region. Main specialisation is introduction of Strategic Self-Management in different levels of social organisations. Baltijos pr. 123-61 LT-93224 Klaipeda, Lithuania; +370 655 39295. ssi@eksponte.lt, www.eksponte.lt



SOME CURRENT ISSUES OF ENERGY EFFICIENCY IN THE EUROPEAN UNION

Tibor László Csegődi, Tamás Naár

¹Szent István University, Hungary

Annotation

According to World Energy Council the definition of energy sustainability is based on three core dimensions: energy security, energy equity, and environmental sustainability. Energy efficiency also plays an important role in the index which is described by energy trilemma theory. The European Council sets its goal in October 2014. Based on this level of energy efficiency will have to improve by at least 27% till 2030. This value will be adjusted by 2020, which likely means the level should increase to 30% in the European Union. It is estimated that each 1% increase in energy savings allows 2.6% reduction in gas imports, thus reducing the EU's energy dependency. Based on data from 2015, the level of energy consumption in the EU was broadly in line with the 1990 level, while only half of the EU Member States (14 states) reduced their gross domestic energy consumption between 2015 and 1990. In our paper, we would like underline the fact by statistical calculations too that households are responsible for 25.4% of final energy consumption, which is roughly the same as that of industry's final energy consumption. The latter can be traced back to the fact that 75% of the EU housing stock is unsatisfactory for its energy efficiency. To exploit the energy efficiency potential of buildings, actions are needed by member states, primarily at regional and local level. This paper outlines the European Union and Hungarian legal requirements of energy efficiency. This is important because the 2012 Energy Efficiency Directive of the European Union requires a 3% renewal of public buildings annually. The 2010 Directive on the Energy Efficiency of Buildings, for example, requires that all new buildings till 2021 need close to zero energy. Surveys show that the population of Hungarian small settlements is considered to be environmentally conscious, and in addition, the state has set up the National Energy Network to reduce the energy consumption of public institutions, businesses and the population. However, legal regulation is not sufficient to meet the requirements. In the final part of our paper, we show that in order to make effective action, the state's financial incentive would be needed in this area.

KEY WORDS: energy trilemma theory, energy union, energy consumption of residential sector, energy efficiency.

Introduction

According to a well-known phrase the best waste is what we do not produce the best source of energy we do not use. Each state has some energy efficiency potential; the only question is how much they can use it. Strong energy efficiency policies are therefore essential to achieve the key energy-policy goals of reducing energy bills, addressing the climate change and air pollution, improving energy security, and increasing energy access (IEA 2016). Energy efficiency has number of benefits (see Fig. 1) such as such as macroeconomic development, public budget increase, enhanced health and wellbeing, industrial productivity and energy delivery improvements (IEA 2016).



Fig. 1. Multiple benefits of energy efficiency
Source: IEA 2016

The ecological economics created the myth of the paperless office approach (York 2008). This means that the more IT equipment we use in an office the more paper we shall also apply. To achieve economic growth most of the developed countries need more, but at least the same amount of energy. Despite the energy consumption structure changed significantly in some states because of the crisis, the dependence on fossil fuels in European countries is still considerable. Worldwide, energy consumption and economic development continue to grow in parallel, but their pace is different. Between 1990 and 2014 the total energy supply grew by 56%, while gross domestic product (GDP) increased by more than 90% (IEA 2016). During the same period of time the amount of energy used to generate a unit of GDP, also called energy intensity, decreased by approximately 20%, with large regional variations.

Energy efficiency must be an important part of our life, but it is only a part of a higher “idea”, energy sustainability. According to World Energy Council's definition energy sustainability is based on three core dimensions, like energy security, energy equity and environmental sustainability. These factors taken together constitute energy trilemma. The first part of energy trilemma is energy security, which means effective management of primary energy supply from domestic and external sources, reliability of energy infrastructure and ability of energy providers to meet demands. The second part of trilemma is energy equity which synonymous with accessibility and affordability of energy supply across the

population. Finally the third part of trilemma is environmental sustainability which involves achievement of supply- and demand side energy efficiencies and development of energy supply from renewable and other low-carbon sources (World Energy Council 2016). In the context of sustainability the energetic and climatic crisis are currently the most significant problems for us. In 2008 three crises hit most of the world: climate crisis - energetic crisis - financial crisis (The Green New Deal 2008). Only the financial crisis was handled, not very successfully. In Hungary this is particularly true because the adverse effects of the crisis prevail here much more seriously than in abroad. According to the European Union's Prudence regional climate modelling program results (National Climate Change Strategy 2008) if the global temperature raises 1 °C than the temperature in the Carpathian Basin will raise almost 1.5 °C. In present moment the world's average temperature is 0.76°C higher than about a hundred years ago. Our consumer culture and energy consumption habits are not climate friendly and sustainable that is why Hungary is very vulnerable from this aspect of view. Our consumption habits are hardly considered to be energy efficient (Fig. 2).

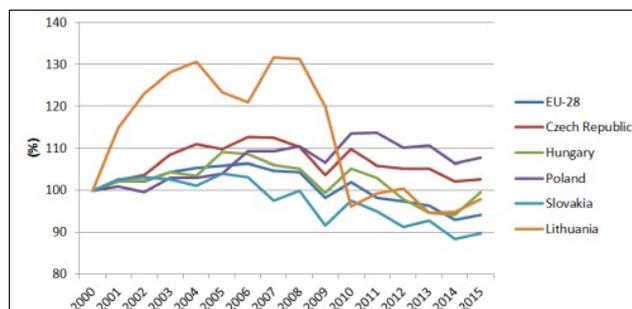


Fig. 2. Change of Final Energy Consumption (2000=100%) in the EU-28, 2000-2015

Source: own calculations based on data from Eurostat (online data code: nrg_100a)

If we compare data from 2000 to 2015 we would be able to state the final energy consumption increased both in the Czech Republic and in Poland. The final energy consumption in Lithuania shows great expansions: it rose rapidly between 2000 and 2004, dropped from 2004 to 2006, reached peak in 2006, and fallen rapidly between 2008 and 2010. It is generally true that energy consumption declined more or less in 2008 but this was due to the economic crisis, not due to energy efficiency. Energy consumption in Hungary has fallen considerably between 2011 and 2014, but since 2015 it has risen again, reaching its peak in the summer of 2017.

Both economic and legal arguments support the need to create energy efficiency. This is especially true for the energy consumption of various (official and non-official) buildings.

Results and Discussion

Energy efficiency as legal requirement

In 2007 the European Council set the target of reducing greenhouse gas emissions by 20% till 2020, increasing the share of renewable energy sources to 20% and improving energy efficiency by 20% (Mellár 2015,

Naár et al. 2013). The issue of improving energy efficiency has already emerged from the Fifth Action Program (1993-2002) adopted by the European Council and the Member States as "Towards Sustainability". The program emphasizes energy in several other sectors and proposes action programs to improve energy efficiency thus preserving and sustaining the environment (Bándi 2011).

The Seventh Action Program (2012-2020) set the target for the EU to move towards low carbon and resource efficiency through the use of policy actions and instruments, thereby pushing the economy to a sustainable growth path by 2020. The action program also draws attention to the resource efficiency by identifying indicators and targets, which serve as a guide for public and private decision-makers. The European Commission has already highlighted, in the Green Paper on European Strategy for Sustainable, Competitive and Secure Power Supply in March 2006, strengthening energy efficiency policy, taking into account Europe's security and future. The three main objectives of energy policy were sustainability, competitiveness and security of supply. The Commission proposes two measures to handle the consequences of climate change. The first is to declare the issue of energy efficiency as a priority area, including increasing the energy efficiency of buildings by laying down additional measures; the second is the planning of the use of renewable energy sources for a longer period of time, which can reduce dependence on oil imports. It also sets out a common energy technology plan and a common energy policy (Soltész-Szakács 2011).

The Energy 2020 Strategy in 2010 (COM (2010) 2020) has strengthened the European Union's 2007 targets by outlining the need for a new energy efficiency strategy, thus putting energy efficiency at the heart of the EU's 2020 energy strategy. At Member State level, economic growth-independent use of energy became truth. Its objectives include building an integrated energy market in Europe, building an energy-efficient Europe and strengthening the European Union's energy market outside the EU. It focuses on defining energy policy steps that will serve the feasibility of an integrated energy-climate strategy by 2020 (Soltész-Szakács 2011).

Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency has set itself the fundamental objective of achieving a 20% energy saving by 2020 for Member States. This means better use of energy resources and a reduce the dependence on imports, which would make the European Union's economy more competitive and lower emissions of carbon dioxide and other pollutants as a result of lower energy consumption. The 2011 Energy Efficiency Plan of the EU has also stated that the most significant energy savings can be achieved for buildings, as nearly 40% of our final energy consumption comes from the use of energy from public buildings, office buildings, residential buildings and other building types. The Directive requires that 3% of buildings owned and used by public buildings in public buildings must be renewed annually to meet the requirements of the national energy efficiency directive. The Energy Efficiency Directive also requires Member States to submit a National Energy Efficiency Action Plan. As a further requirement, the directive stipulates

that consumers should be informed about their energy consumption so that they can make decisions about energy use (Mellár 2015). All Member States have already announced their national energy saving target, which may lead to the conclusion that the Member States are targeting only 16.4% for primary energy savings and 17.7% for final energy savings by 2020. This means that it is unlikely that the 20% savings required to achieve the full EU target will be realized by the 2020 deadline (COM/2013/0762).

The main purpose of Directive 2010/31/EU on the energy performance of buildings is to promote the improvement of buildings energy efficiency in the European Union, taking into account climatic conditions and local conditions. It sets out a number of tasks for the Member States (Energy performance of buildings 2015). The Directive lays down a common methodology for Member States at national or regional level to calculate the energy efficiency of buildings. Member States should set minimum requirements for energy efficiency in order to achieve cost-optimized levels within the aforementioned calculation methodology. These minimum requirements must be reviewed at least every five years. In the case of new buildings, compliance with the minimum requirements is a precondition, while renovating existing buildings should be pursued to improve energy efficiency even in such a way as to meet the requirements (Energy performance of buildings 2015). Under the Directive, the minimum energy performance requirements for buildings should be set so as to achieve an equilibrium between investment costs and energy savings for the entire lifetime of the building; and it also stresses the need to increase the number of buildings which are more energy-efficient than minimum requirements (Energy performance of buildings 2015). After 31 December 2020, the Directive requires that all new buildings need to be close to zero energy. For new buildings used or owned by public authorities, this deadline is 31 December 2018. Additional requirements of this Directive include the certification of buildings or separate units of destination, as well as an independent control system for energy efficiency certificates and on-site inspection reports. The certificate should use the information on energy consumption of buildings and recommendations to improve cost-effectiveness. (Mellár 2015) These energy efficiency certificates must be passed on to the buyer or tenant when the buildings are sold or leased; in the case of public buildings, they must be suspended in a visible place.

According to the above mentioned legal documents it seems to be clear that creating energy efficient buildings would be a significant step towards achieving overall energy efficiency. For example household energy consumption in Hungary, the second highest proportion of EU-28 member states (34.4%) out of the final energy consumption, with a higher share (36.7%) of domestic energy consumption only observed in Croatia (Fig. 3).

In terms of electricity consumption, however, it is already clear (Fig. 4.) in the EU-28 area in 2014 that the residential sector is the largest consumer with its 61% share, industry with the second 37%, and the electricity consumption of transport it is almost dull with its 2% share. Based on these, it can be concluded that the largest

possible energy savings in the residential sector can be achieved and thus increased energy efficiency (EUROSTAT 2017).

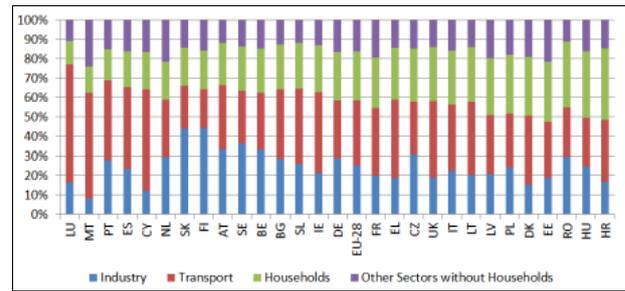


Fig. 3. Structure of Final Energy Consumption in the EU-28, 2015

Note: Data is ranked on the share of the household sector in final Energy consumption

Source: own calculations based on data from Eurostat (online data code: nrg_100a)

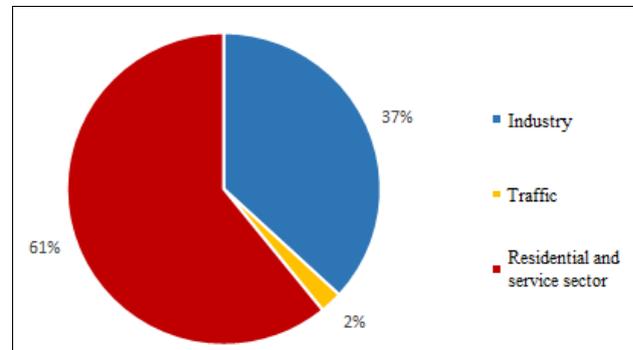


Fig. 4. EU-28 electricity consumption by sector in 2014

Source: own construction based on Eurostat (2017)

In addition to the mentioned legally binding documents a communication from the European Commission (released two years ago) also important for us. The communication of European Commission is about a framework strategy for (resilient) Energy Union, and as such it is a development of EUROPA 2020 plan. It is a quite shocking data but 75% of European Union housing stock is energy inefficient. Every additional 1% increase in every savings cuts gas imports by 2.6% (COM(2014)520). The European Union has to create energy efficiency contributing to moderation of demand in order to achieve greater energy security, sustainability and competitiveness. In order to make our energy system safer and more sustainable, for example, significant energy efficiency investments are needed, most of which are expected to be carried out by the private sector. Therefore, financial support for the private sector is essential in this area. At the same time, the financial support of households is necessary to work in an energy efficient way. The lack of energy efficiency often has a strong correlation with energy poverty, not only but mainly the poorest European citizens are affected adversely by this phenomenon. Energy poverty negatively affects living conditions and health. It has many causes, mostly resulting from a combination of low income and general poverty conditions, inefficient homes and a housing tenure system that fails to encourage

energy efficiency (COM(2015) 80). One of the ways to combat energy poverty, but not the one and only and not the best one, is to reduce energy prices. Much better way is to create energy efficiency when European Citizens do not need as much energy as previously. The European Council set in October 2014 an indicative target at the EU level of at least 27% for improving energy efficiency in 2030. This will be reviewed by 2020, having in mind an EU level of 30%. From 2015 – for the European Union – energy efficiency is an independent energy source. Heating and cooling is the largest single source of energy demand in Europe and the majority of Europe’s gas imports are used for these purposes. Huge efficiency gains remain to be captured with regard to district heating and cooling, which will be addressed in a Commission strategy (COM(2015) 80). Member states have to take actions both at local and regional levels to exploit the energy efficiency potential of buildings. Attracting investments at the scale needed remains a challenge, especially at the local level, mainly due to lack of awareness and expertise in small-scale financing. Firstly the large number of funding opportunities, then greater amount of money available and finally the simplification of the use of grants would be important steps from the European Union and Member States too. Financial support needs to be combined with technical support to help aggregate small scale projects into larger programmes which can drive down transaction costs and attract the private sector at scale.

Energy efficiency from statistical point of view

Despite the fact that our approach to climate change is based on morality, energy efficiency should be a matter of economic concern. At the same time, the impact of climate quality on the energy consumption in European states should not be forgotten. Our relatively short statistical survey is based on the per capita value of households' energy consumption (Fig. 5).

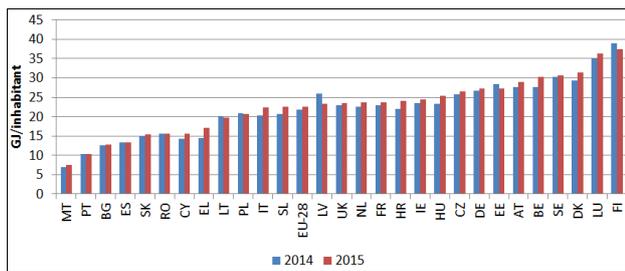


Fig. 5: Household energy consumption per capita in the EU-28, in 2014, 2015

Note: Data is ranked on the data for 2015

Source: own calculations based on data from Eurostat (online data code: nrg_100a)

According to the EU-28 map (Fig. 6) based on the Eurostat database (data from the year 2014), it can be said that the final energy consumption of households is significantly distributed among Member States. In thousands tonnes of oil, among the Member States, Montenegro, Cyprus, Macedonia and Luxembourg have the least final household energy consumption; while France, Italy, Germany, Spain, Poland, the United Kingdom and the Netherlands have the highest values.

Hungary, together with several neighbouring countries - Austria, Romania and the Czech Republic - is also a high valued consumer of end-consumer energy, and in Hungary the exact value is 4433.5 thousand tons of oil.

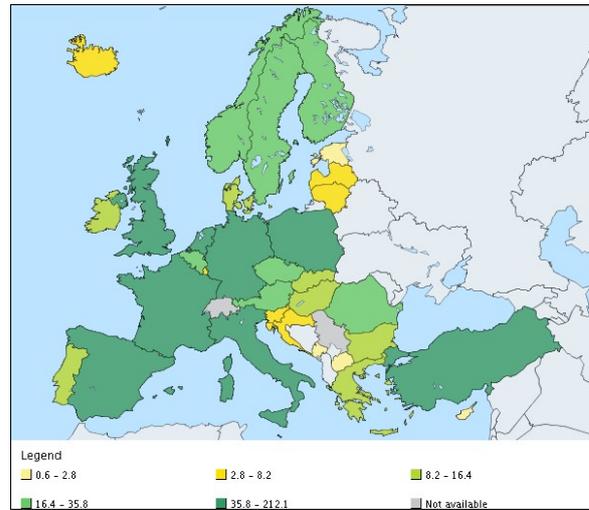


Fig.6: EU-28 final energy consumption in the household sector in 2014 (Million tonnes of oil equivalent, TOE)

Source: Eurostat (2016)

The Hungarian household energy consumption calculated on the basis of Eurostat data which was 23.2 GJ/capita in 2014. Household energy consumption in Hungary is higher than the EU-28 average (21.7 GJ/capita). In any case, it can be concluded that the per capita consumption of energy in households has been increasing in most EU countries by 2015. The second step of the analysis was to try to squeeze our sample from the effects of climate. There is no negligible linear correlation between the number of heating days and the per capita energy consumption of households ($p < 0.01$, $R^2 = 0.486$): a longer heating period of one day means an average cost of 0.11 gigajoules per person per household. Figure 7 shows that in the case of Mediterranean countries, the lower number of heating days is associated with lower household power consumption.

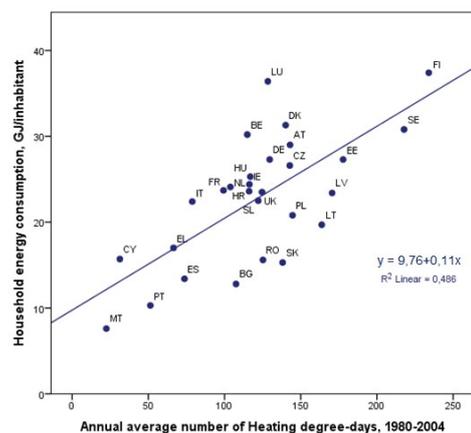


Fig. 7. Relationship between annual average number of heating degree-days and household energy consumption per capita (2015) in the case of the EU-28 countries

Source: own calculations based on data from Eurostat (2017)

Despite the fact that household energy per capita is the highest in the more affluent European countries,

energy efficiency is still considered to be the most financial necessity. The main part of households' expenditures consists of energy bills and home maintenance. It is important to increase the energy efficiency of heating and cooling and to adapt the settlement structure and constructions to changing weather conditions, as well as the efficient, conscientious use of electricity. Based on the results of the EU-SILC survey, in average, about every tenth household in the EU cannot maintain the right temperature in its home (Fig. 8), increasing household energy efficiency can become an important element of social exclusion.

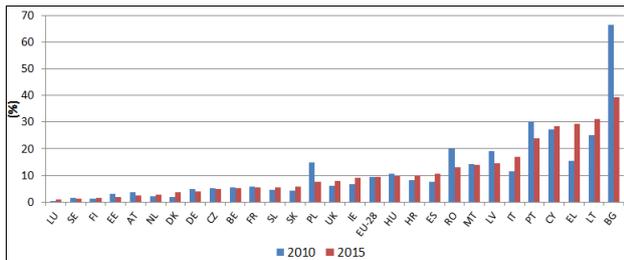


Fig. 8. Inability to keep home adequately warm (% of total population) in the EU-28, in 2010, 2015
 Note: Data is ranked on the 2015 year
 Source: Eurostat, EU-SILC survey (online data code: ilc_mdcs01)

The map based on the Eurostat 2014 database clearly shows (Fig. 9) the extent to which EU-28 Member States depend on petroleum, natural gas and solid fuels. The values are expressed in percentage. Among the Member States, Turkey, Belgium, Italy, Luxembourg, Ireland, Cyprus, Malta and Lithuania depend mainly on the import of these energy sources, least of all Iceland, Denmark, Estonia and Romania. Norway is the only Member State that does not depend to some extent on the import of crude oil, natural gas and solid fuels. Hungary's dependence on energy carriers is very high at 61.1%. (EUROSTAT 2016)

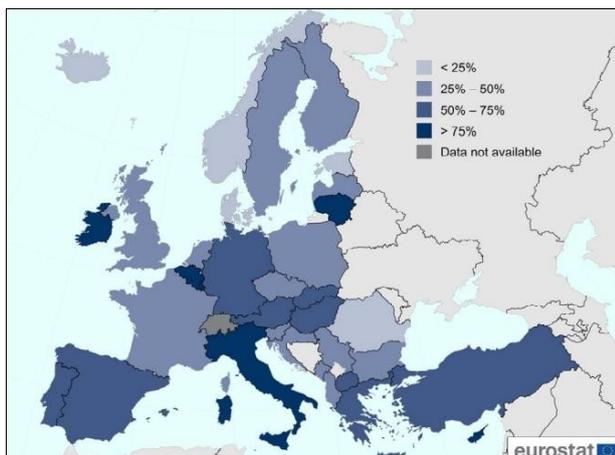


Fig. 9: Energy dependence in the EU-28 area in 2014 (%)
 Source: Eurostat (2016)

By comparing the final energy consumption of the EU-28 Member States in the residential sector and the dependence on energy imports by the same Member States in 2014, it can be stated that, in most cases, those Member States are most dependent on imported

petroleum, natural gas and solid fuels, such as Italy, Turkey, Belgium, Ireland or our country.

“Instead of conclusion” – Situation in Hungary

One of the most important goals for the European Union to reach 2020 is to achieve an energy-efficient Europe. Today, increasing energy efficiency can prove decisive in increasing security of energy supply, thereby contributing to reducing Europe's dependence on imports, thus making the European Union's economy more sustainable and competitive. Making investments in energy efficiency can result in lower energy bills in the public and private sectors, as well as in the private sector and can also contribute to the reduction of pollutant emissions. Currently, according to Hungarian experience, many subsidies aimed at increasing energy efficiency go to the local governmental sector as well as to the residential sector, while the latter could achieve the greatest savings potential. The private sector is not able to finance these investments by itself, so it is important to support the energy efficiency improvements in the households by the state more and more predictably. In the public sector, there is a need for bidding opportunities similar to local government support systems. At the same time, it can be said, once they have started in a good direction, municipal energy efficiency investments can serve as a good example for the residential sector investments, thereby further increasing the ability to meet our EU commitments by 2020. It should be an obligatory for local governments/municipalities to communicate very effectively their results in saving energy and energy costs due to their renovations to local citizens. In Hungary, in the case of building energy modernization, the most significant investments with the highest saving potential are the most typical ones, which cover mainly thermal insulation of buildings, exchange of doors and windows and modernization of their heating. Developments mainly involved educational institutions, public office buildings and municipal offices and buildings. It can be stated that the follow-up of investments in energy efficiency is inadequate, so in many cases it is not possible to know exactly what energy and cost savings have been achieved for each investment.

It can be stated that domestic legislation does not always emphasize the same thing as in European Union directives, so it may be that current building energy requirements are not too stringent. Nevertheless, new properties are already built up with fairly good parameters and in most cases they can keep up to the cost-optimum level of the EU and domestic regulations. Among our national energy efficiency programs, the Building Energy Strategy has proved to be a well-used, professionally-grounded material. With regard to building energy improvements, complex investment is certainly advisable, as it can achieve the highest energy saving potential. This can result in a savings potential of around 50% to 60% with thermal insulation, door opening and heating upgrading. Renovations in buildings are largely dependent on the technical condition of the buildings, as they can reach a level they are no longer touching, but will be more economical in their complete rebuilding.

It is difficult to obtain savings from energy efficiency investments; this may be because their follow-up is very bad. It cannot be accurately stated that the amount of energy and thus energy cost saved as a result of the refurbishments, although in most cases the cost of energy expenditure itself was the most motivated development. However, it can be said, in the case of complex building energy investments, their payback time can be measured decades, which depends most on the level of the self-financing. Therefore, the role of the state is important not only for public institutions but also for the public.

References

- Bándi Gyula (2011): *Környezetjog (Environmental Law)*, Osiris Kiadó, Budapest, Hungary
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL Implementing the Energy Efficiency Directive – Commission Guidance /* COM/2013/0762 final */ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52013DC0762&from=HU> (11.03.2016.)
- COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN INVESTMENT BANK A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy COM(2015) 80 final [http://www.europarl.europa.eu/meetdocs/2014_2019/documents/com/com_com\(2015\)0080/_com_com\(2015\)0080_hu.pdf](http://www.europarl.europa.eu/meetdocs/2014_2019/documents/com/com_com(2015)0080/_com_com(2015)0080_hu.pdf) (09.09.2017.)
- Energy performance of buildings (2015) <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:en0021&from=HU> (11.03.2016.)
- Europe 2020 – An European strategy for smart, sustainable and inclusive growth (2010). Communication from the European Commission, COM (2010) 2020, Brussels. pp. 37.
- Eurostat - Electricity consumption by industry, transport activities and households/services. <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=ten00094&plugin=1> (04.04.2017.)
- Eurostat: Energy dependence <http://ec.europa.eu/eurostat/tgm/mapToolClosed.dotab=map&init=1&plugin=1&language=en&pcode=tsdcc310&toobox=types> (04.04.2016.)
- Eurostat (2016). Energy dependency in the EU. Newsrelease. Online: <http://ec.europa.eu/eurostat/documents/2995521/7150363/8-04022016-AP-EN.pdf/c92466d9-903e-417c-ad76-4c35678113fd> (23.09.2017)
- International Energy Agency (2016): *Energy Efficiency Indicators Highlights*, Paris, France pp. 154
- Mellár B. (2015): *Energiahatékonyság*. http://www.europarl.europa.eu/atyourservice/hu/displayFtu.html?ftuId=FTU_5.7.3.html (30.03.2016.)
- Naár, A.T., Vinogradov, Sz., Tóth-Naár, Zs. (2013). Comprehensive assessment of domestic geothermal energy and heat pump utilization. In: Magó L., Kurják Z., Szabó I. (szerk.): *Synergy 2013. 3rd International Conference „Engineering, Agriculture, Waste Management and Green Industry Innovation”*. SZIE, Gödöllő
- Nemzeti Éghajlatváltozási Stratégia (National Climate Change Strategy) 2008 – 2025, p. 16, Table 1.2.
- Soltész I. & Szakács Gy. (2011): *Az épületek energiahatékonysága Uniós és hazai szabályozás (Energy Efficiency of Buildings - European Union and Domestic Regulation)* Complex Kiadó Jogi és Üzleti Tartalomszolgáltató Kft., Budapest, Hungary 11-23 p., 31-35 p., 53-122 p., 124-146 p.
- The Green New Deal Group, first report (2008), published by New Economics Foundation, London. P. 45. <http://www.neweconomics.org/projects/green-new-deal> (30.09.2010.)
- Richard York: Ökológiai paradoxonok (ecological paradoxes) - William Stanley Jevons és a papírmentes iroda (William Stanley Jevons and the myth of the paperless office, 2008) In: *KOVÁSZ Internetalapú Folyóirat (KOVÁSZ internet-based journal)* – 2008. TAVASZ-NYÁR P. 5–15. <http://kovasz.uni-corvinus.hu/2008/2008-1-2.php>
- World Energy Council (2016): *World Energy Trilemma Index, Full report*, United Kingdom, pp. 147

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Tibor László Csegődi dr., lawyer, and economist (Regional and Environmental Economic Studies, MSc.), assistant lecturer, Szent István University, Faculty of Economic and Social Sciences, Institute of Economics, Law and Methodology. He completed the course requirements (got absolutorium) of Szent István University, Management and Business Administration PhD School as a full-time PhD-student. His research is framed by rural development, environmental law, climate protection, energy efficiency and renewable energies, local climate friendly and energy conscious partnerships. H-2100 Gödöllő, Páter Károly u. 1, Hungary, Tel.: +36-30-981-6424, +36-28-522-000/1943, e-mail: csegodi.tibor.laszlo@gtk.szie.hu

Tamás Antal Naár is an agricultural economist engineer. He obtained his diploma at Szent István University, Faculty of Economics and Social Sciences in 2007. He obtained a certificate in logistics at Szent István University, Faculty of Mechanical Engineering in 2004. He started his research work during the university years. He works at Gödöllő Agricultural Centre Non-Profit Company. At the moment he is an operational manager. Previously, he was a project manager. He is the writer of academic and research articles. Currently his main research area is The examination of the potentials of alternative energy sources and sustainability. E-mail: naaratamas@gmail.com



ACCEPTABLE AUDIT MATERIALITY FOR USERS OF FINANCIAL STATEMENTS

Vaclovas Lakis¹, Audrius Masiulevičius²

¹Vilnius University, ²UAB „Novus Numerus“

Annotation

Materiality of financial statements is the most significant element of audit, which determines the scope of performed procedures and reliability level of data in financial statements. Having selected the level of materiality the auditor has to assess the significance of misstatements to the users of financial statements. If the materiality is selected not correctly then the risk increases, that adequate procedures will not be performed and financial statements will not meet the expectations of users of financial statements.

The aim of the article is to investigate the possibilities of harmonizing materiality expectations of the users of financial statements and materiality value applied by the auditor.

In the process of investigation it was determined that the value of materiality accepted by the users of financial statements differs from the one used by auditors. Therefore, the auditor's opinion about financial statements might not meet the users' expectations. On the basis of investigation results a test was suggested, which could help to harmonize auditor's applied materiality with expectations of the users of financial statements. Suggested test could also be used as a new and innovative method to calculate materiality. Suggested alternative way for calculating materiality is very important for future researches and science, because it is new technique to address materiality in a way that suits both, users of financial statements and auditors. This new technique could be used in the future researches searching and examining other materiality determination methods and if they are in the line with users' expectations.

Key words: materiality; clearly trivial; users of financial statements; expectations; misstatements; data reliability.

Introduction

The auditor, before planning and performing the audit, presumes that some misstatements and fraud can be detected in accounting and financial statements. Therefore, the presented data might not always be correct. The inaccuracies can be either material or immaterial. Insignificant misstatements and inaccuracies are not very important and they do not influence decisions made by the users of financial statements. Significant misstatements, including omissions, are considered to be material if they, individually or in the aggregate, could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements (ISA 320, 2009).

The biggest problem faced by the auditor is the value of materiality, which may influence the reliability of financial statements and the decisions made by the users. The value of misstatement in some cases, might be material and in other cases – immaterial. The final decision on materiality is made by the auditor, thus it presents possibility for different auditors to interpret the same facts differently which is not acceptable in audit. Also, the materiality determined by the auditor does not always satisfy the users of financial statements.

This problem has a long history. In 1974 O'Connor and Collins raised the question what range of materiality are appropriate and what materiality base should be used (O'Connor and Collins, 1974). However, even today the problem has not been solved yet. The investigation, which was made in 2009, indicated that 74 % of respondents think, that materiality concept, which is applied today, is not perfect (Rooij, 2009), but so far

situation has not changed. The investigation, which was made in United Kingdom in 2013, indicated that different audit companies apply different materiality to the same category of companies under audit (Audit..., 2013). The other analysis in 2015 produced by other author confirmed the same fact, i.e. that the auditors' decisions concerning materiality are different (Kristensen, 2015).

Due to the fact, that there does not exist clear materiality selection instructions there might arise interests' conflicts between auditors and users of financial statements, as the investigation which was made in 2003 indicated, that perceived materiality of users of financial statements is smaller than the materiality applied by the auditors (Cho et al., 2003).

The aim of investigation is to examine the possibilities of harmonizing materiality expectations of the users of financial statements and materiality value applied by the auditor.

Methodology: In the process of performing the investigation the archival and survey methodologies was used. First of all the investigation of previous researches, including the findings and proposals for future research, related to the topic, was made. During the investigation problems related to the materiality expectations of the users of financial statements and materiality value applied by the different auditors was summarized. The practice of materiality determination, on the basis of international standards on auditing, was generalized as well.

In addition, the survey of users of financial statements who are the experts in this field was made. The experts were asked about completely immaterial misstatement

level. Their results were compared to the previous researches made by other authors.

Finally, the alternative approach for the current materiality determination practice was suggested.

Historical background

Determination of materiality is a problem for a long time. Different researches have been made related to the materiality and its' determination (Table 1). While materiality, relatively, was new concept problems was associated with materiality value, i.e. what is material and what is not (Bernstein, L. A., 1967). However, soon, other problem came to light. Whole materiality concept is related to financial statement users and their economic decisions, thus materiality determination should be user oriented. However many researches confirmed, that materiality thresholds set by auditors are not in line with users' thresholds (Holstrum, G. L. and Messier, W. F. Jr., 1982; Jennings, M., et al., 1987; Iskandar, T. M. and Iselin, E. R., 1999; Cho, S. Y., et al., 2003; Messier, W.

F. Jr., et al., 2005; Rooij, D., 2009; Kristensen, R. H., 2015; Eilifsen, A. and Messier, W. F. Jr., 2015).

Even though the problem, that materiality should be user oriented, is known - little has been done besides identifying the problem. Several suggestions, how to set user oriented materiality have been made. In 2003 Turner suggested the determination of materiality based on the impact on earnings per share rather than based on methods as done presently (Turner, J. L., 2003). Juma'h in 2009 recommended that accountants and auditors should be more innovative and try to apply non-traditional methods (Juma'h, A. H. , 2009).

But situation have still not changed and the problem remains. Thus it is very important to further investigate materiality threshold differences between auditors and users and try to find new, innovative way how to harmonize materiality expectations of the users of financial statements and materiality value applied by the auditor.

Table 1. Researches related to the materiality concept and threshold differences between users, preparers, and auditors.
Source: Prepared by the authors according to the other authors researches.

Year	Article	Author (s)	Method	The objective of the research	Findings related to the topic	Future research suggestions related to the topic
1967	The concept of materiality	Bernstein, L. A.	Archival	The Concept of Materiality	Essential is the setting of a border zone between what is material and what is not.	-
1974	Toward establishing user-oriented materiality standards	O'Connor, M. C. and Collins, D. W.	Archival	Materiality guidelines consistent with the "average prudent investor" approach	Future development of materiality guidelines should be user-oriented	
1982	A Review and Integration of Empirical Research on Materiality	Holstrum, G. L. and Messier, W. F. Jr.	Archival	To review and integrate the relevant empirical research concerning the issue of materiality and to explore the significant implications of this research for current auditing practice and future auditing research	The research studies revealed differences between users, preparers, and auditors with respect to materiality thresholds	More work needs to be undertaken to examine the structural form of the materiality decision model. More rigorous work must be undertaken to examine the threshold levels of the various groups.
1987	A Reexamination of the Concept of Materiality: View of Auditors, Users, and Officers of the Court	Jennings, M., et al.	Experiment	The Concept of Materiality	Lack of materiality consensus between auditors and users	Given this lack of materiality consensus between auditors and users, more specific materiality standards, universally applicable across all cases, gain in appeal.
1989	Auditor Reporting Decisions Involving Accounting Principle Changes: Some Evidence on Materiality Thresholds	Chewning, E. G., et al.	Archival	The Concept of Materiality	Non-Big Eight partners have lower materiality thresholds than their Big Eight counterparts.	-
1998	Evidence on Auditor and Investor Materiality Thresholds Resulting From Equity-For-Debt Swaps	Chewning, E. G., et al.	Archival	How financial statement users' implied materiality judgments correspond with auditors implied materiality judgments	Auditors' implied materiality judgments exhibit some degree of congruence, but do not correspond completely, with the market's reaction.	Research on whether there is a fundamental difference between "audit report materiality" and "financial statement presentation materiality".
1999	A review of materiality research	Iskandar, T. M. and Iselin, E. R.	Archival	The objectives of the paper are to evaluate the development of research on materiality, identify variables that may have potential effects on materiality judgments, and establish the future direction of research in this area.	There is a lack of materiality consensus between auditors, preparers and users. In general, users use low materiality thresholds compared to auditors and preparers.	Future research is required to resolve lack of materiality consensus between auditors, preparers and users.
2001	The association between European materiality estimates and client integrity, national culture, and litigation	Arnold, D. F., et al.	Experiment	Differences in materiality estimates	European materiality estimates are higher than US estimates	-
2002	What does "Materiality" really mean	Chewning, E. G. and Higgs, J. L.	Archival	Concept of materiality and how materiality decisions are made	Research has found considerable variance in materiality judgments across decision makers (e.g., financial analysts and bank loan officers).	A general standard, even one with a threshold different from a user's preference, would promote cross-sectional comparison and improved disclosure for investors.
2003	Factors Affecting Auditors' Assessments of Planning Materiality	Blokdijk, H., et al.	Experiment	Planning materiality assessment	Big 5 audit firms set materiality levels that are significantly lower than the planning materiality levels of non-Big 5 firms	-
2003	Measuring Stockholder Materiality	Cho, S. Y., et al.	Experiment	Investigation of empirically various quantitative factors that stockholders consider important in assessing whether earnings are materially misstated.	Materiality thresholds of users are substantially lower than those discussed in the pedagogical literature on auditing and those used in practice.	Different materiality thresholds should be consider for future research.

Year	Article	Author (s)	Method	The objective of the research	Findings related to the topic	Future research suggestions related to the topic
2003	Aligning Auditor Materiality Choice and the Need of a Reasonable Person	Turner, J. L.	Archival	Determination of materiality based on the impact on earnings per share rather than based on numerous heuristics as done presently.	Determining materiality on a per share basis provides greater information for users of financial statements with a common-size metric consistent across industries, across entities of different sizes, and across time.	-
2005	A review and integration of empirical research on materiality: two decades later	Messier, W. F. Jr., et al.	Archival	The paper: (1) reviews and integrates the empirical research on materiality since 1982, and (2) suggests some implications of this research for audit practice and research.	There were considerable differences between users, preparers, and auditors with respect to materiality thresholds. In general, users demonstrated lower materiality thresholds than preparers or auditors	Future research could examine audit manuals in order to update the degree of variability between firms in their guidance on materiality. Future research could investigate the effects of this variability and its effect on users of the financial statements. Lastly, future research could investigate alternative methods for allocating planning materiality. Also research is needed to determine what is material and how is it determined
2009	Materiality of misstatements from the perspective of the users of the financial statements - Narrowing the expectation gap between users and auditors	Rooij, D.	Survey	An empirical research if expectation gap regarding materiality of misstatements exists between users of the financial statements and auditors	A relevant expectation gap between users of the financial statements and auditors concerning materiality of misstatements does exist.	It is essential that every measure for improving the concept of materiality would be researched from the point of view of all the different stakeholders related to the measure (preparers, auditors, users).
2009	The Implications Of Materiality Concept On Accounting Practices And Decision Making	Juma'h, A. H	Archival	The materiality concept	The absence of standards and guides to cover materiality in most situations implies that accountants were applied a variety of decisions and there is no consensus in many cases.	It is recommended that accountants and auditors should be more innovative and try to apply non-traditional methods.
2011	A Meta-Analysis of Empirical Materiality Studies	Vance, D. E.	Experiment	To summary of empirical materiality studies made before	There is a high degree of variability in materiality judgments ranging from a low of 0.44% net income to a high of 54.65% of net income. Materiality varies among interest groups. Managers, controllers and board members have the lowest mean materiality and bankers and creditors have the highest	-
2015	Judgment in an auditor's materiality assessments	Kristensen, R. H.	Archival	Materiality assessments	The analysis has revealed that there is a lack of consensus between users and auditors, which indicates that auditors are unable to foresee the needs of users or simply do not consider them when making the assessment	Future research could determine if heterogeneous materiality judgments are a problem for audit report users and, if they are, explore how to make auditors conduct more homogeneous materiality judgments
2015	Materiality Guidance of the Major Public Accounting Firms	Eilifsen, A. and Messier, W. F. Jr.	Archival	Materiality guidance for eight of the largest U.S. public accounting firms.	The results indicate a significant amount of agreement between the firms on the benchmarks (e.g., income before taxes, total assets or revenues, and total equity) and percentages applied to those benchmarks when establishing overall materiality	One area of research concerns whether the benchmarks and percentages used by the firms map to user needs

Materiality, applied in the process of financial statements audit, determination overview

Materiality is very important in performing audit of financial statements and making audit conclusions. The auditor's opinion depends on the value of materiality, whether financial statements present true and fair view. International Standards on Auditing define three different levels of materiality used by auditors:

Planning materiality (materiality for the financial statements as a whole) – misstatements, including omissions, are considered to be material if they, individually or in the aggregate, could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements (ISA 320, 2009). The auditor, on the basis of his/her professional decision, sets the sum, which, in his/her opinion, may influence economic decisions made by the users.

Performance materiality – the amount or amounts set by the auditor at less than planning materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds planning materiality (ISA 320, 2009).

Clearly trivial misstatement – matters that are clearly trivial will be of a wholly different (smaller) order of magnitude than materiality determined in accordance with ISA 320, and will be matters that are clearly

inconsequential, whether taken individually or in aggregate and whether judged by any criteria of size, nature or circumstances (ISA 450, 2009). In other words, these are misstatements, which do not make any impact on company's performance and are not important for company's management, shareholders, investors and other users of financial statements.

All three materialities should be determined in every audit. The main and the most important materiality is planning materiality because this materiality should indicate whether the identified misstatements could influence the economic decisions made by the users of financial statements.

In making decision about materiality the auditor has to evaluate the degree of distortion and existing circumstances. Therefore both, quantitative aspects, like mathematical error size and qualitative aspects like false disclosure of information or non-disclosure of it, misleading interpretation of facts, etc. are important. The audit standards do not define in detail what values should be used and how exactly materiality should be calculated, therefore, while determining materiality the auditor relies on his/her professional decision (Joldos et. al., 2010), however in all cases international audit standards obligate the auditor to identify whether, individually or in the aggregate, misstatements are material (ISA 450, 2009).

The most popular models of defining materiality, which can be applied by the auditor in making a

professional decision, presented in literature are (McKee and Eilifsen, 2000):

Single rule (a rule of thumb) – it is a model where materiality is calculated from a selected concrete financial indicator, considering different quantitative parameters, and applying a fixed percentage rate to it. E.g. 5 % of profit before taxes, 0,5 % of assets etc.

Size rule – this model is based on single rule model, but in this case a concrete percentage of the financial indicator is not applied. Every financial indicator, which can be applied, has a possible percentage interval, e.g. from 5 to 10 % of profit before taxes, 0,5-1 % of revenue, etc. The auditor, relying on his/her experience, on the basis of information about a company and on the basis of expectations of users of financial statements, selects a percentage and applies it while determining audit materiality.

Average rule – applying this model four or five financial indicators are usually used (on the basis of single rule) and every indicator has a weighted average which is determined by the auditor. For example, profit before taxes 20 % of weighted average is attributed, for gross revenue 40 %, assets 20 %, and equity 20 %. On the basis of weighted average formula the final materiality is calculated.

Formula method – a mathematical formula can be used, which is based on statistical analysis.

All these methods can be applied determining materiality, while performing audit of financial statements. The auditor makes a professional decision which method should be used. In practice, the most popular and most often applied method is size rule method. However, even the same method is applied differently. In 2013, in United Kingdom an investigation was made, where 6 biggest audit companies were surveyed. The survey participants indicated what percentage intervals they use in determining the materiality of audit of financial statements. In some cases, maximum materiality in different companies can

vary even 10 times (Table 2). It indicates, that for the same company, which is audited by different auditors, different standards and different workload can be used. Most important, the value of misstatement determining whether distortion is material or not, can vary 10 times.

According to the effective standards, while evaluating error's materiality, the auditor presumes the following: users of financial statements have an appropriate knowledge of business and economic activities and accounting and a willingness to study the information in the financial statements with an appropriate diligence, understand that financial statements are prepared and audited to levels of materiality, recognize the uncertainties inherent in the measurement of amounts based on the use of estimates, judgment, and the consideration of future events, and, make appropriate economic decisions on the basis of the information in the financial statements (SAS 107, 2006). 320 International Standard on Auditing indicates, that judgments about matters that are material to users of the financial statements are based on a consideration of the common financial information needs of users as a group, however the possible effect of misstatements on specific individual users, whose needs may vary widely, is not considered (ISA 320, 2009). Therefore, the auditor, very often has to make assumptions when making a decision about 1) knowledge of users of financial statements 2) tolerance level to the size of the misstatement 3) expectations from audit of financial statements and etc. Therefore, if different assumptions are made, the materiality can be different as well.

Hence, the main criterion the auditor should use, while defining materiality, is misstatement's impact on the decisions made by the users of financial statements. However, a question arises, whether different methodologies used by different auditors in defining materiality, in all cases, comply with the expectations of users of financial statements?

Table 2. Audit planning materiality percentages used in six biggest audit companies in United Kingdom.

Source: (Audit..., 2013).

Benchmark	Company 1	Company 2	Company 3	Company 4	Company 5	Company 6
Profit before tax - Listed/PIE	Up to 5%	5%	3 % to 10%	3 % to 10%	5 % to 8%**	5 % to 10%
Profit before tax - non-Listed/PIE	5 % to 10%	5 % to 10%	3 % to 10%	3 % to 10%	5 % to 10%	5 % to 10%
Gross profit - Listed/PIE	Up to 2.5%	-	-	3 % to 10%	1 % to 2%	partner judgment
Gross profit - non-Listed/non-PIE	Up to 3.5%	-	-	3 % to 10%	1 % to 4%	partner judgment
Net assets - Listed/PIE	0.5 % to 1%*	0.5 % to 1%*	2 % to 5%	3 % to 10%	1 % to 2%	Up to 3%
Net assets - non-Listed/non-PIE	1.75 % to 2%*	0.5 % to 1%*	2 % to 5%	3 % to 10%	1 % to 5%*	Up to 3%
Revenue - Listed/PIE	Up to 1%	0.5 % to 2%	0.5 % to 2%*	0.5 % to 3%	0.5 % to 1%	0.8 % to 5%
Revenue - non-Listed/non-PIE	Up to 2%	0.5 % to 2%	0.5 % to 2%*	0.5 % to 3%	0.5 % to 2%	0.8 % to 5%
Total assets - Listed/PIE	Up to 0.5%	0.5 % to 2%	1 % to 2%	0.5 % to 3%	0.5 % to 1%	-
Total assets - non-Listed/non-PIE	Up to 2%	0.5 % to 2%	1 % to 2%	0.5 % to 3%	0.5 % to 2%	-

*Maximum percentage depending on whether entity was a Mutual or Pension Fund.
 **Consultation required above 5%

The expectations of financial statements' users concerning the value of materiality

In performing audit, the auditor has to collect sufficient appropriate audit evidence. Sufficiency implies the amount of audit evidences, and appropriate evidence

implies the quality measure of audit evidence (ISA 500, 2009). However, reasonable assurance does not imply absolute level of assurance because audit has certain inherent limitations (ISA 200, 2009).

The results of investigation, made in 2003, indicated that the immaterial misstatement understood by the users of financial statements is smaller than the values which are applied in practice by the auditors (Cho et al., 2003).

Accordingly only 0.1 - 0.2 % limit on profit before taxes was considered to be immaterial, whereas the auditors consider the limit to be 10 %, i.e. difference is 50 times. Limit of total assets which was considered to be immaterial by the users of financial statements made 0.01 - 0.025 % of total assets, when the auditors, accordingly, assess the limit of 3 % (difference is 120 times), depending on the circumstances. The investigation also indicated revenue misstatement which was considered to be immaterial - 0.01 - 0.02 %, while the auditors usually apply 5 % limit (250 times). Therefore, it could be stated, that the materiality applied by auditors might often differ from the expectations of users of financial statements.

Respectively, the misstatement, which the auditors consider to be possibly immaterial, can be evaluated as material for users of financial statements and their decisions.

In Lithuania, the survey of chief financiers, as the experts, of ten different companies' was made by the authors, concerning the most important financial indicators in making business management decisions, and what value of misstatement is considered to be immaterial. The experts were asked to identify: (1) the most important financial indicators in company's performance, (2) clearly trivial misstatement and (3) misstatement which might influence economic decision. The results are presented in Table 3.

Table 3. The materiality of financial indicators for the users of financial statements. Source: Prepared by the authors according to the expert survey results.

Company	Size of company	The most important financial indicators in company's performance	Clearly trivial misstatement, EUR	Misstatement which might influence economic decisions, %
Company 1	Small	Gross profit	100	1,0%
Company 2	Very small	Profit before tax	1.000	1% - 2,0%
Company 3	Very small	Assets	100	2% - 5,0%
Company 4	Medium-sized	Revenue	500	1,0%
Company 5	Medium-sized	Revenue	100	1% - 2,0%
Company 6	Medium-sized	Revenue	200	1,0%
Company 7	Medium-sized	Gross profit	500	1,0%
Company 8	Medium-sized	Gross profit	2.000	1% - 2,0%
Company 9	Medium-sized	Gross profit	1.000	2,0%
Company 10	Large	Gross profit	6.000	1% - 2,5 %
Average			1.150	2,0%

The experts identified the financial indicators and the value of misstatement, which is considered to be immaterial in making management decisions. The results of survey of experts are considerably different from the survey made in 2003. It indicates, that the materiality level perceived by the users of financial statements depend on concrete circumstances, therefore, it must be periodically revised.

The auditors agree, that the materiality concept should be clarified (Jacoby and Levy, 2016; Hitzig, 2016), therefore, it is logical, that the users of financial statements lack knowledge about materiality used in audit. It is rational, that existence of different materiality levels in the financial statements audit process reduces the understanding of misstatements and materiality by the users of financial statements. In 2003 in survey the users of financial statements indicated immaterial misstatements for them. However, a question arises, to which audit materiality indicated sizes are attributed to a) planning materiality; b) performance materiality; c) clearly trivial misstatement materiality? 0.01 - 0.02 % misstatement of revenue probably will not change the decision of the users of financial statements to invest or not into the company, therefore, a assumption can be made, that the misstatements indicated by the users of

financial statements very often depict clearly trivial misstatements (bearing in mind the materiality perspective used by the auditors), however, indicated values not always influence the final decisions.

The expert survey showed, that some differences exist between the materiality value applied by the auditor and the expectations of financial statements users. One of the reasons, why the difference exists between materiality applied by the auditor and expected materiality of users of financial statements lies in the fact, that very often the users make great requirements for audit. The auditor cannot achieve the users' aims because of limited control means and inherent audit limitations. Also the auditor is not obliged to perform certain procedures and tasks, because professional standards do not require it even though the users of financial statements expect it (Porter, 1993). What is more, many investigations confirmed the fact, that users lack knowledge about materiality (Rooij, 2009; Houghton et al., 2011; Considerations..., 2012), therefore, the expectations can be in no proportional to auditor's possibilities.

Today a new statement about application of materiality in financial statements is under consideration. On the basis of preliminary project, the statement will cover characteristics of materiality, the concept of materiality, and defining the misstatement as material or

immaterial (Application..., 2015). This standard is devoted to people who prepare financial statements; therefore, the understanding of materiality between people who prepare financial statements and who use it should increase. However, today, because of the lack of knowledge, the understanding of materiality by the users of financial statements and materiality applied by the auditors is a nowadays problem.

Because of the different understanding of materiality among auditors and users of financial statements, the solutions are searched. In 2005 Brennan and Gray investigated the applied materiality problems during audit and they presented a suggestion that more detailed materiality disclosures are needed (Brennan and Gray, 2005), which could bridge the gap between auditor's understating and the users understanding. The other suggestion which might minimize the risk of different perception of materiality is the disclosure of materiality applied by the auditor. Having disclosed it, the size of misstatement, which possibly was not corrected, would be clear for financial statements users. The survey which was made in 2009 stated that about 98% of respondents agree, that the materiality applied by the auditor should be disclosed (Rooij, 2009). The other survey, which was made few years later, also revealed the fact, that it should be disclosed that materiality is used and that audit does not perform 100% check-up (Houghton et al., 2011). Hence, the difference between perceived understanding of materiality by auditors and users of financial statements would be reduced.

There is no doubt, that very often the users of financial statements understand materiality differently than the materiality used by the auditors in practice. There are some proposals how to minimize the difference, but due to great number of different opinions, no concrete solutions were made and this problem is still of great importance to-day.

The method for harmonizing materiality expectations of the users of financial statements and materiality value applied by the auditor

To improve audit process and minimize the risk, that the materiality which was applied by the auditor, will not comply with the expectations of the users of financial statements, is possible when an additional test is performed. To assess what misstatement in financial statements might change the users economic decision is very complicated (it usually depends on many circumstances), however, to identify the size of misstatement which would be completely immaterial is much simpler. Very often this misstatement corresponds the clearly trivial misstatement out of three materialities used by the auditor. In 2015 the biggest 8 audit companies in United States of America underwent survey and the clearly trivial materiality values in percentage they use are presented in Table 4. All companies apply very similar percentages: 3 - 8% of planning materiality. Most often 5 % of planning materiality is applied.

Table 4. The size of clearly trivial misstatements with reference to 8 biggest audit companies in United States of America. Source: Created by the authors on the basis of (Eilifsen and Messier, 2015).

	Clearly trivial misstatement
Company 1	Most often 3 % of planning materiality.
Company 2	Most often 5 % of planning materiality.
Company 3	Most often 3-5 % of planning materiality.
Company 4	3-5 % of planning materiality.
Company 5	5 % of planning materiality.
Company 6	Most often 3-8 % of planning materiality.
Company 7	5 % f planning materiality.
Company 8	5 % f planning materiality.
AVERAGE ≈	5%

Three-step test is suggested which could help to define planning materiality during audit, which would correspond to the expectations of users of financial statements.

1. The inquiry of the main users of financial statements about clearly trivial misstatement in value terms (EUR);
2. Application of formula (2) to evaluate planning materiality;
3. The comparison of results to materiality determined in traditional manner and selection of final materiality.

Step No. 1. Firstly, the auditor should get information from the main users of financial statements about clearly trivial misstatements (the value expressed in EUR, which do not make any impact on company's performance and are not important to company's managers, shareholders, investors and other users of financial statements). Main groups of users of financial statements are: investors, creditors, suppliers, employees, customers, state institutions, public in general (Conceptual..., 2005). In every case, the users, who are interested in financial statements and its' information, are different. If the company has some loans – the creditors will be interested in financial position of the company, if the company wants to expand and searches for investors – the investors will be interested in company's activities. If the company satisfies public needs or company's activity is important for public – corresponding state institutions will be interested in company's performance. However the employees' interests in financial statements can be separated from other groups. This group of people are interested in financial statements and financial state of the company because their welfare directly depends on it. While performing the audit, the auditor not always has possibility to evaluate the opinion of certain users groups and get the information. But the auditor can get information from company's shareholders, employees and management (CEO, CFA etc.). Therefore, it is recommended to enquire this group, what is the value of misstatements or inaccuracies in financial statements, expressed in value terms, that will be not important for them and make no impact. Having this value and using Formula No. 2 the auditor could evaluate, whether the materiality which he/she applies complies with

expectations of the users of financial statements (concrete groups). The main goal of an auditor is to survey those users who has the most interest in financial statements. The survey can be performed verbally or in a written form, but according to the evaluation of audit evidence – the information presented in a written form is more reliable than verbal, therefore, it is recommended to make a survey in a written form. When the auditor gets the results of the test, could add this information to the documents related with the calculation of materiality. The company’s performance, financial situation and the importance of financial statements to the users usually changes, therefore, the survey must be done before every audit.

Step No. 2. The auditors, while calculating clearly trivial misstatements, usually apply 3-8% of planning materiality. The average value which is usually applied makes 5% (Table 4), thus:

$$\text{Clearly trivial misstatement, EUR} = \frac{\text{Planning materiality}}{0,05} \quad (1)$$

Accordingly, if the value of clearly trivial misstatement is known, a reverse formula can be applied and it is possible to calculate what planning materiality should be. The auditors, in defining clearly trivial misstatement usually apply 5% (Table 4) of planning materiality, therefore, this value is suggested in formula

$$\text{Planning materiality} = \frac{\text{Clearly trivial misstatement, EUR}}{0,05} \quad (2)$$

The calculation of planning materiality according to the formula is presented in Table 5.

Step No. 3. In the last step the auditor should compare the obtained results with suggested formula with the results got in a traditional way. The final determination of materiality in all cases depends on auditor’s professional decision, therefore, the auditor has to make a final decision, however the suggested test can give a lot of useful information to the auditor. If the determined materiality using suggested formula is not bigger that materiality got in a traditional way – the auditor gets an additional assurance that the applied materiality complies with the expectations of the users of financial statements. And vice versa, if the calculated materiality is smaller – the auditor will have some

indications, that, maybe, applied materiality and audit procedures are not suitable and the main goals of audit might not be achieved. Consequently, the auditor could: a) select a smaller materiality; b) ascertain the needs of the users of financial statements and materiality tolerance in more details; c) consult with another auditor. These measures will minimize the risk of making wrong professional decision.

The situation can be illustrated by the example. Let’s say, that the initial, traditional materiality is 10 000 EUR. Consequently, from the calculations made in Step 2 it is seen that for the companies No. 2, 8, 9 and 10 the expected materiality by the users, which was obtained applying Formula No. 2 is bigger, than the one applied by the auditor, therefore, there does not arise risk for wrong materiality. The materiality in companies No. 4 and 7 comply with the calculations made by the auditor, therefore, there is no risk there as well. However, in companies No. 1, 3, 5 and 6 the obtained materiality are smaller compared to the results gained by the auditor when the calculations were made in a traditional way. Hence, the risk exists, that the auditor, probably, applies too high materiality and he/she needs to perform one out of three named measures to minimize risk.

Most of the researches before was oriented towards identifying the problem related to the different materiality thresholds between users and auditors, however very few suggestions how to eliminate the problem was suggested. Furthermore, suggestion of this article for calculating materiality is the probably the first attempt to calculate materiality directly involving the users of financial statements, thus it is very important for science as well as future researches further developing suggested method and cannot be compared to other authors suggestions.

The suggested test is very important for both, science and practice, because it could also be used as a new and innovative method to calculate materiality (only steps 1 and 2). Also, alternative way for calculating materiality is new technique to address materiality in a way that suits both, users of financial statements and auditors, thus this technique could be used in the future researches searching and examining other materiality determination methods and if they are in the line with users expectations.

Table 5. Suggested calculation of materiality. Source: Produced by the authors

Company	Size of the company	The most important indicators in company’s activity	Clearly trivial misstatement, EUR	Calculation of planning materiality according to the suggested formula
Company 1	Small	Gross profit	100	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 100 / 0,05 = 2000 EUR
Company 2	Very small	Profit before taxes	1.000	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 1000 / 0,05 = 20000 EUR
Company 3	Very small	Total assets	100	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 100 / 0,05 = 2000 EUR
Company 4	Medium-sized	Revenue from main activities	500	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 500 / 0,05 = 10000 EUR
Company 5	Medium-sized	Revenue from main activities	100	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 100 / 0,05 = 2000 EUR
Company 6	Medium-sized	Revenue from main activities	200	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 200 / 0,05 = 4000 EUR
Company 7	Medium-sized	Gross profit	500	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 500 / 0,05 = 10000 EUR
Company 8	Medium-sized	Gross profit	2.000	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 2000 / 0,05 = 40000 EUR
Company 9	Medium-sized	Gross profit	1.000	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 1000 / 0,05 = 20000 EUR
Company 10	Large	Gross profit	6.000	Planning materiality = Clearly trivial misstatements, EUR / 0,05 = 6000 / 0,05 = 120000 EUR

Conclusions and future research possibilities

The correct determination of materiality during financial statements audit is one of the most important

tasks for auditor, in order to perform it correctly – to express an opinion on whether the financial statements are prepared, in all material respects, in accordance with an applicable financial reporting framework.

Even though, the understanding of materiality and application of it should be the same and not depend on what auditors or audit companies perform audit of financial statements, however, different auditors apply different materiality values, therefore, the reliability of financial statements can be different depending on auditor or audit company.

The determination of materiality should be orientated towards the users of financial statements, but the surveys indicated that the materiality level expected by users of financial statements is lower compared to the one, applied by an auditor, therefore, a big risk exists, that in many cases the financial statements do not present such level of reliability which is expected by the users of financial statements.

The suggested test could improve the audit process in different aspects. Firstly, today, there does not exist unanimous planning materiality determination method among auditors. The auditors apply different materiality determination methodologies, thus, different materiality might be applied for the same company under audit by different auditors. While applying the suggested test it might be possible to determine the unanimous materiality of financial statements. Also, the defined planning materiality value should reflect the situation whether the economic decisions made by the users of financial statements will change, therefore, while calculating materiality the users' opinion has to be considered. However, there does not exist clear practical or methodological guidelines how the auditors should consider it. With the help of suggested test, the auditors will get information directly from users, hence the risk, that the planning materiality will not comply with the users' expectations, will decrease.

Most of the researches before was oriented towards identifying the problem related to the different materiality thresholds between users and auditors, however very few suggestions how to eliminate the problem was made. Thus, the suggested test is very important for both, science and practice, because it could also be used as a new and innovative method to calculate materiality (only steps 1 and 2) and replace currently used methods, which, from the conclusions of the previously made researches, does not ensure, that materiality thresholds used by the auditors are the same thresholds, as users expect.

Suggested alternative way for calculating materiality is very important for future researches because it is new technique to address materiality in a way that suits both, users of financial statements and auditors. Also, this new technique could be used in the future researches searching and examining other materiality determination methods and if they are in the line with users' expectations. Suggested method for calculating materiality is probably the first attempt to calculate materiality directly involving the users of financial statements, thus it is very important for future researches to further evaluate the suitability of the method. And if possible findings are made, it could be used as the basics for other materiality determination techniques.

References

- Application of Materiality to Financial Statements. IFRS Practice Statement (2015), available at http://www.ifrs.org/Current-Projects/IASB-Projects/Disclosure-Initiative/Materiality/Exposure-Draft-October-2015/Documents/ED_IFRSPracticeStatement_OCT2015_WBSITE.pdf, referred on 26/02/2017.
- Arnold, D. F., Bernardib, R. A., Neidermeyer, R. E. (2001). The association between European materiality estimates and client integrity, national culture, and litigation // *The International Journal of Accounting*. Vol. 36, p. 459 -483.
- Audit Quality Thematic Review Materiality (2013), available at: <https://frc.org.uk/Our-Work/Publications/Audit-Quality-Review/Audit-Quality-Thematic-Review-Materiality.pdf>, referred on 25/02/2014.
- Bernstein, L. A. (1967). The concept of materiality // *Accounting Review*. Vol. 42, Issue 1, p. 86 - 95.
- Blokdijk, H., Driehuisen, F., Simunic, D. A., Stein, M. T. (2003). Factors Affecting Auditors' Assessments of Planning Materiality // *Auditing: A Journal of Practice & Theory*. Vol. 22, No 2, P. 297 -307.
- Brennan, N. and Gray, S. J. (2005). The Impact of Materiality: Accounting's Best Kept Secret // *Asian Academy of Management Journal of Accounting And Finance*, Vol. 1, p. 1-31.
- Chewning, E. G., Eugene, G., Wheeler, S. W., Chan, K. C. (1998). Evidence on Auditor and Investor Materiality Thresholds Resulting From Equity-For-Debt Swaps // *Auditing: A Journal of Practice & Theory*. Vol. 17, No 1, p. 39 -53.
- Chewning, E. G., Higgs, J. L. (2002). What does "Materiality" really mean // *Journal of Corporate Accounting & Finance*. Vol. 13, No 4, P. 61 -71.
- Chewning, E. G., Pany, K., Wheeler, S. W. (1989). Auditor Reporting Decisions Involving Accounting Principle Changes: Some Evidence on Materiality Thresholds // *Journal of Accounting Research*. Vol. 27, No. 1, p. 78 - 96.
- Cho, S., Hagerman R. L., Nabar, S. and Patterson, E. R. (2003). Measuring Stockholder Materiality // *Accounting Horizons*. Vol. 17, p. 63-76.
- Conceptual Framework for Financial Reporting (2005), available at, <http://www.ifrs.org/Meetings/MeetingDocs/IASB/Archive/Conceptual-Framework/Previous%20Work/CF-0510b08bj06b-att.pdf> referred on 26/02/2017.
- Considerations of materiality in financial reporting (2012), available at https://www.esma.europa.eu/sites/default/files/library/2015/11/2011_373_.pdf, referred on 26/02/2017.
- Eilifsen, A. and Messier, W. F. (2015). Materiality Guidance of the Major Public Accounting Firms // *Auditing: A Journal of Practice & Theory*. Vol. 34, No. 2, p. 3-26.
- Hitzig, N. B. (2016). Continued Confusion about Materiality // *CPA Journal*. Vol. 86 Issue 8, p. 20-20.
- Holstrum, G. L., Messier, W. F. Jr. (1982). A Review and Integration of Empirical Research on Materiality // *Auditing: A Journal of Practice & Theory*. Vol. 2, No 1, p. 45 - 63.
- Houghton, K. A., Jubb, C. and Kend, M. (2011). Materiality in the context of audit: the real expectations gap // *Managerial Auditing Journal*, Vol. 26 Issue 6, p. 482 - 500.
- ISA 200 Overall Objectives Of The Independent Auditor And The Conduct Of An Audit In Accordance With International Standards On Auditing (2009), available at <http://www.ifac.org/system/files/downloads/a008-2010-iaasb-handbook-isa-200.pdf>, referred on 28/02/2017
- ISA 320 Materiality in planning and performing audit (2009), available at: <http://www.ifac.org/system/files/downloads/a018-2010-iaasb-handbook-isa-320.pdf>, referred on 24/02/2017.
- ISA 450 Evaluation of misstatements identified during the audit (2009), available at <http://www.ifac.org/system/files/downloads/a021-2010-iaasb-handbook-isa-450.pdf>, referred on 26/02/2017.

- ISA 500 Audit evidence (2009), available at <http://www.ifac.org/system/files/downloads/a022-2010-iaasb-handbook-isa-500.pdf>, referred on 26/02/2017.
- Iskandar, T. M., Iselin, E. R. (1999). A review of materiality research // *Accounting Forum*. Vol. 23, Issue 3, p. 209 -239.
- Jacoby, J. and Levy, H. B. (2016). The Materiality Mystery // *CPA Journal*. Vol. 86 Issue 7, p. 14-18.
- Jennings, M., Kneer, D. C., Reckers, P. M. J. (1987). A Reexamination of the Concept of Materiality: View of Auditors, Users, and Officers of the Court // *Auditing: A Journal of Practice & Theory*. Vol. 6, No 2, p. 104 - 115.
- Joldos, A. M., Staniciu, I. C. and Grejdan, G. (2010). Pillars of the Audit Activity: Materiality and Audit Risk // *Annals of the University of Petrosani Economics*. Vol. 10 Issue 2, p 225-238.
- Juma'h, A. H. (2009). The Implications Of Materiality Concept On Accounting Practices And Decision Making // *Inter Metro Business Journal*. Vol. 5 No. 1, p. 22 -37.
- Kristensen, R. H. (2015). Judgment in an auditor's materiality assessments // *Danish Journal of Management & Business*. Nr. 2, p. 53-65.
- McKee, T. E. and Eilifsen A. (2000). Current Materiality Guidance for Auditors, available at: https://brage.bibsys.no/xmlui/bitstream/handle/11250/166032/A51_00.pdf?sequence=1, referred on 25/02/2017.
- Messier, W. F. Jr., Martinov-Bennie, N., Eilifsen, A. (2005). A review and integration of empirical research on materiality: two decades later // *Auditing: A Journal of Practice & Theory*. Vol. 24, Issue 2, p. 153 - 187.
- O'Connor, M. C. and Collins, D. W. (1974). Toward establishing user-oriented materiality standards // *Journal of Accountancy*, Vol. 138 Issue 6, p. 67-75. ISSN:0021-8448
- Porter, B. (1993). An Empirical Study of the Audit Expectation-Performance Gap // *Accounting & Business Research (Wolters Kluwer UK)*, Vol. 24 Issue 93, p. 49-68.
- Rooij, D. (2009). Materiality of misstatements from the perspective of the users of the financial statements - Narrowing the expectation gap between users and auditors, available at https://www.google.lt/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjdrPTU3avSAhULFywKHQvcDpIQFggYMAA&url=http%3A%2F%2Frepub.eur.nl%2Fpub%2F15576%2FAccountability_rooij.pdf&usq=AFQjCNGu2101d5OXzi_mLOdLb4lorB49Q&sig2=04W9YkTh8P0KkrxRcZWavg, referred on 24/02/2017.
- SAS 107 Audit Risk and Materiality in Conducting an Audit (2006), available at: <http://www.aicpa.org/Research/Standards/AuditAttest/DownloadableDocuments/AU-00312.pdf>, referred on 24/02/2017.
- Turner, J. L. (2003). Aligning Auditor Materiality Choice and the Need of a Reasonable Person, available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.533.7845&rep=rep1&type=pdf>, referred on 22/05/2017.
- Vance, D. E. (2011). A Meta-Analysis of Empirical Materiality Studies // *The Journal of Applied Business Research*. Volume 27, Number 5, p. 53 -72.

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Vaclovas Lakis – Phd, prof. of Audit and Accounting Department, Faculty of Economics, Vilnius University, e-mail: Vaclovas.lakis@ef.vu.lt. Prof. V. Lakis published more than 270 articles, monographies, textbooks, and the author of several manuals. Scientific interests: audit, fraud investigation in financial statements, management accounting.

Audrius Masiulevičius – *JSC Novus Numerus.*, partner. E-mail Audrius.Masiulevicius@gmail.com. Scientific interests: audit effectiveness of financial statements and development of audit quality.



FEATURES OF THE FORTH INDUSTRIAL REVOLUTION: TAXES CASE

Valentas Gružasuskas¹, Gita Statnickė^{1,2}

¹ Kaunas University of Technology, ² Klaipėda State University of Applied Sciences, Lithuania

Annotation

The upcoming fourth industrial revolutions causes instability in the society and economy. From one side, the development of robots and artificial intelligence allows automation of business processes, which in result stimulates the growth of the economy. In 2016 an insurance company implemented artificial intelligence for insurance pay-out calculations, which increased the productivity of the company by 30%. From another side, automation increases structural unemployment rate, which causes negative consequences to society. A global market research company McKensey stated that today's technology could feasibly replace 45% of jobs right now. Technological development is inevitable due to rapidly growing population and changing business environment. Without technological development, the productivity could not increase and economic prosperity would be impossible. Moreover, due to required high capital investments multi-national companies can monopolize the industry, leaving small and medium enterprises (SMEs) behind. This problem could be an even bigger concern for the European Union, because today SMEs are the backbone of Europe's economy, which represent 99% of all businesses in the EU. Increased productivity can be achieved by large investments, therefore SMEs losses competitiveness advantage, which causes natural monopolistics to rise. For example, a robotics company "Symbotic" has developed a system to automate warehouse jobs formerly done by humans. The system cut labour costs by 80% and reduced warehouse size by 25%, however the initial investment required more than 74 EUR million. These kind of systems are still expensive, however in future the costs will decrease. These findings indicate the necessity for the government to interfere and to present a tax-subsidy scheme, which would stimulate economic growth and would limit the negative consequences of business process automation. The extra funding should be oriented to the reformation of the current education system and to aid employees during the requalification period.

KEY WORDS: technological change; artificial intelligence; unemployment; tax-payment system; entrepreneurship.

Introduction

The first industrial revolution began in the late 18th century when hand-work shifted to machine work. The innovations, which stimulated the first industrial revolution, included energy sources used for machines such as water and coal. One of the key industries at that age was textile, which due to mechanised cotton spinning greatly increased productivity. The second industrial revolution began from 1840 when steam engines were invented. Steam engines increased efficiency of energy consumption by 10 times, which in result greatly decreased production costs and maximized productivity. The industrial revolution also lead to the development of machine tools, which provided the ability to process metal. More advanced processes to use natural resources caused even more growth of the economy. The most common production processes were job-shop and batch production before the second revolution. Due to technological innovations, mass production was introduced to the market, which again revolutionized the industry by lowering costs. Even greater efficiency was achieved, when plastic was invented, which decreased the production costs even furtherly. The third industrial revolution began in the 21st century (Allen 2014).

The third industrial revolution began, when information technologies were invented. The information technologies (IT) allowed transaction costs to be reduced. Ronald Coase published a paper in 1937 titled "The nature of the firm". He predicted the rise of multi-national companies by amplifying the scale of economy concept as a competitiveness advantage to reduce costs (Coase 1934). However, at that time it was necessary to have one accountant for three employees, which raised the transaction costs drastically. Due to the invention of IT, transaction costs were reduced dramatically, which even today is causing a rise of small and medium enterprises (SMEs). For example, SMEs are the backbone of Europe's economy, which represent 99% of all businesses in the EU (Commission 2014). These technology development trends is leading to the fourth industrial revolution, which is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres. Artificial intelligence (AI) and robots are the main technological innovations, which stimulate the appearance of the fourth industrial revolution. The ability to gather information from physical world, to process it and based on the outcome allow a computer-based system to make decisions instead of people, is revolutionizing the world's economy. However, these tendencies are causing many disputes in the world. On one hand, the fourth industrial

revolutions allows businesses to automate their processes. However, high capital investments is required to implement such technologies in businesses activities, which is causing SMEs to loose competitiveness advantage against large multi-national companies. On the other hand, higher productivity results in higher unemployment rate, which causes negative consequences.

Therefore, the government must implement a tax-subsidy scheme for business process automation to promote economic growth. Later, after the return of investments, oblige the participants to pay extra taxes to limit the negative affect of automation such as decline of job positions, mismatch of labour market skills and other social consequences. To amplify the proposed methodology several objectives must be accomplished:

1. Identify the fourth industrial revolution impact to economic growth;
2. Analyse the consequences of the fourth industrial revolution to social and business environment;

3. Propose a tax-subsidy scheme to minimize the negative effect of the fourth industrial revolution.

The impact of business process automation to world’s economy

Technological development has drastically effected the productivity of the world’s economy. World Bank statistics indicated that in 1960 – 2015 period the gross domestic product (GDP) per capita increased 60 times (The World Bank 2017). Further technological development will accelerate the economic potential even more. Greg Becker, the president of Silicon Valley bank, stated that when the population size will reach 11 billion, the value-added for the whole world to exist will be generated by less than 1 billion work force, while others will live from government aid. Rapid growing technologies will impact various sectors, part of them has been already effected due to the 3rd industrial revolution (see figure 1).

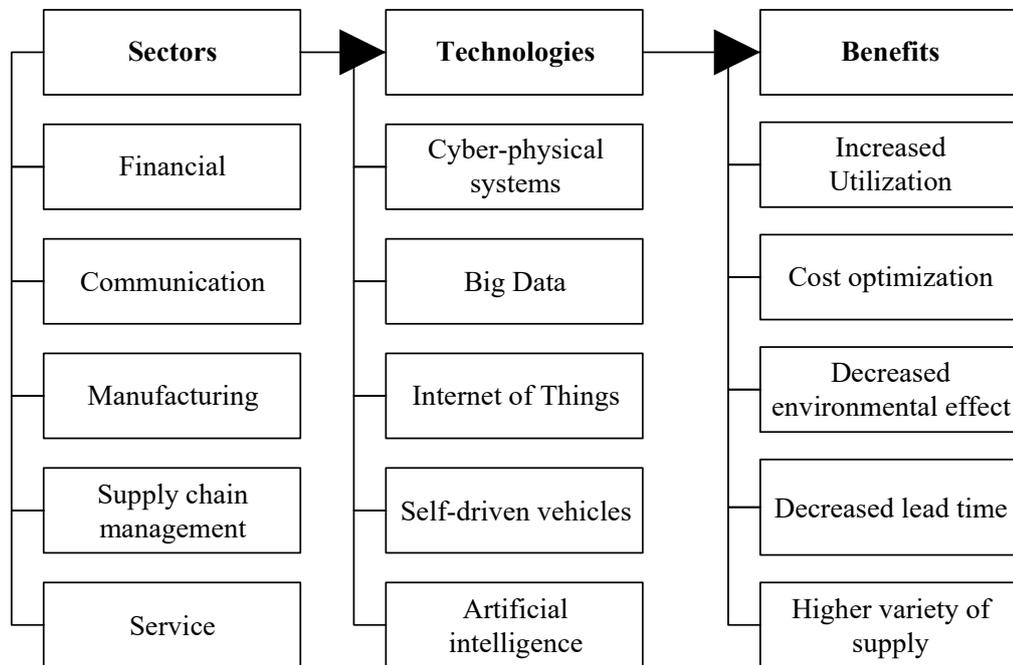


Fig. 1 The Fourth Industrial Revolution Influence to Economic Sectors

Financial sector due to the speed of information and money has drastically changed. Credit cards, international transfers rapidly stimulated the economic growth. Moreover, the insurance sector also adapted to the new technologies, which increased the productivity of sales. In the future, the FinTech industry will be impacted even more due to the fourth industrial revolution. Communication sector, which before mainly involved letters and phone calls also drastically changed. Today the transaction costs were reduced practically to zero due to computers and worldwide access to internet. Today there is still a problem with language barrier, which is being research due to more advanced computational possibilities such as natural language processing. The development of new technologies has drastically influenced the industry also. Production processes has changed from mass production to flexibility and the

defect rate has been reduced drastically. Today the main problem lies in increasing the resilience of the system to implement fully 100% no defect rate policy, which still has been difficult to succeed. Supply chain management changed to high visibility of the whole processes, which improved decision-making. However, the delay of making decisions is still low because of human involvement. Due to the fourth industrial revolution, the information utilization possibilities will increase even more. Lastly, the least effected sector today is service industry. However, soon robotics will be implemented to even furtherly increase productivity of the economy. The transport sector will be also drastically effected due to development of self-driven cars, which will decrease parking places and improve the utilization of cars, which today often are not utilized effectively. The internet of things concept has influenced the appearance of smart

cities, which will improve the routing of transport in the cities and decrease traffic jams and other problems, which especially mega cities are facing today. The book industry today has also drastically changed due to the appearance of internet and digitalization of media, in the past book industry had huge fixed cost and today it is possible to publish quite cheap and fast via the internet, which causes drastic change in traditional brick type stores. A similar situation can be seen in the news industry, where information is spread across social media and other channels much faster than traditional ones. The internet has also drastically influenced the education sector, because of the appearance and rapid growth of online lectures, which are interactive and does not require students to travel long distances. Moreover, real-estate is also not needed any more, which reduces the fixed costs of education drastically. The digitalization of the industry changed the entertainment and sport sector as well. A few decades ago the online game industry was not so popular and now it is being treated the same as traditional sports. Lastly, all the consumers buying habits changes due to the trend for e-commerce. In the past consumers bought in the shops just what they could, today they can order through the internet from any place of the world, choosing from huge variety, which causes drastically changes in competitiveness environment. These trends are mainly due to the third industrial revolution. New technologies will even more effect the mentioned industries and sectors.

Artificial intelligence (AI) is contributing the most to these trends, which causes many disputes in the market. AI has enabled businesses to increase productivity and profitability dramatically. For instance, in 2016 an insurance company implemented AI for insurance pay-out calculations, which increased the productivity of the company by 30%. The initial capital investments required

170 EUR million and will save 1.1 EUR million early (BBC 2017). Another unique usage of AI in financial sector is related to high frequency trade (HFT). HFT involves complex algorithms, which estimates stock prices and executes high quantity of transactions through multiple markets. HFT might seem futuristic, however in 2008 a start-up company “Virtu financial” was established, which currently operates on more than 235 markets in 36 countries. It was reported that by March of 2014, the company made profit 1,277 out of 1,278 days, while losing money just one day (Bloomberg 2014). AI has effected not only the financial sector, but the industrial as well. A new concept of cyber-physical systems (CPS) emerged, which is an integration of computation, networking, and physical processes (Ray 2017). The growth of productivity will be stimulated even more by the appearance of CPS, however the possible potential of this concept is still unclear. In 2013, the European commission indicated that CPS economic and social potential is much larger than anticipated (Commission 2013). For instance, a robotics company “Symbotic” has developed a system to automate warehouse jobs formerly done by humans. The system cut labour costs by 80% and reduced the warehouse size by 25%, however the initial investment required more than 74 EUR million (The Wall Street Journal 2016). Another key aspect of the industrial sector is transportation. The development of self-driven trucks will impact the productivity of the economy also. One of the largest distribution company’s DHL indicated that self-driven vehicles will be able to travel 24/7 without requiring driver rest time and, compared with today’s driving, could achieve overall cost reductions in the region of 40 % per kilometre (DHL Trend Research 2014).

Table 1. Share of Total Global R&D Spending (Bernstein 2016)

	2014	2015	2016
North America	29.10%	28.50%	28.40%
U.S.	26.90%	26.40%	26.40%
Caribbean	0.10%	0.10%	0.10%
All North America	29.20%	28.50%	28.50%
Asia	40.20%	41.20%	41.80%
China	19.10%	19.80%	20.40%
Europe	21.50%	21.30%	21.00%
Russia	3.10%	2.90%	2.80%
South America	2.80%	2.60%	2.60%
Middle east	2.20%	2.30%	2.30%
Africa	1.00%	1.10%	1.10%
Total	100.00%	100.00%	100.00%

Table 1 indicates total global spending to R&D by region and main countries. In 2014 the Global R&D spending was 105,8 billion USD, the 2015 estimation is 107.8 billion USD and the forecast in 2016, 112 billion USD. The trend indicates increasing expenditures to innovation development stimulating the economic growth. These facts indicate that artificial intelligence is

stimulating the growth of the economy, however, at the same time, is causing negative consequences.

The necessity to adapt to the fourth industrial revolution

AI not only influences the growth of the economy, but also causes unemployment to increase. The world economic forum estimated that by 2020 five million jobs will disappear due to technology development (World Economic Forum 2016). Another, research indicated that 10 million job positions will be destroyed in USA by 2025 due to self-driven vehicles (Business Insider 2015). A global market research company, McKensey, stated that today's technology could feasibly replace 45% of jobs right now (McKinsey 2015). In 2016, President Barack Obama of the US, warned Congress about the threat of job loss, based on several reports that found that as much as 50% of jobs could be replaced by robots by 2030 (Insider Business 2016). These issues can be limited by government interference, however there is a lack of policy and understatement of how to deal with these issues effectively.

The development of AI can crush millions of job positions, however it will also influence the appearance of new job positions, which were not possible in the past. The economy tendencies are best summarized by “the parable of the fish” by a world-class economist, Paul Zin Pilzer. The story explains that in a small island people used to fish with a rod, however an innovation was introduced – a net. The appearance of the net increased the productivity by 80%, which in result increased the unemployment rate by 80%, since there were only 10 anglers in the island (Pilzer 2007). High unemployment rate does not contribute to the bankruptcy of the island. The unemployment growth simply identifies the necessity for the labour market to shift their skills to new occupations such as farming, sewing and so on. This concept is called structural unemployment, which is a mismatch of the labour market skills and the demand of the market. The current educational system is too slow to teach the labour market new skills and it cannot cope with the growth of technology (The Chronicle of Higher Education 2016). The household and student loan debt statistics of US can identify the ineffectiveness of the education system. The report of Bank of New York indicated that in 2016 the household debt doubled since 2004 to a value of 11.58 EUR trillion, with 1.21 EUR trillion consisting of student loan debt (Federal Reserve Bank of New York 2017). These statistics indicate that new graduates are unable to earn money and returns debts. Therefore, the government must introduce a tax-

subsidy scheme to stimulate economic growth, since implementation of AI requires large capital investments. Later, after the ROI, the companies should be taxed more to soften the lag between labour market skills and market demand.

Elon musk, founder of Tesla, is promoting a similar approach, which is called universal basic income (UBI) (Business Insider 2017). UBI is government aid, which is a fixed payment to people, since technology will generate all the value-added instead of people. However, the implementation of UBI can cause the labour market to stop evolving, therefore the government aid should not be simply distributed between the labour market. The extra taxes should be oriented to the education system reformation. Part of the extra funding should be oriented to programming skills and engineering. The UBI should be payed during the requalification period, while the employees gain enough knowledge and could offer themselves to the market again. However, Mark Cuban stated that the automation of automation is arising due to AI development. Computers will learn how to write software better than humans can. Mark Cuban also identified that the most on demand labour skill will be “creative thinking” (The Times 2017). The skills on demand will also involve leadership, relationship management, and public speaking, entrepreneurship – specifically the necessity to create communities or networks. In the past entrepreneurship was considered as something unique, today it is necessary in order to survive in the technology-effected economy. One of the best network creation example is network marketing or multi-level marketing (MLM), which due to rapidly developing technologies gained even more recognition. Robert Kiyosaki, a best-selling author and entrepreneur, indicated that MLM is a way for the average person to generate wealth, which involves mentorship, financial gain and the opportunity to learn specific skills (Fleming & Kiyosaki 2010). Paul Zin Pilzer in his book “The Next Millionaires” stated that the economy shifted from production and logistics to information distribution, where MLM stands to gain the most out of this opportunity (Pilzer 2007). Frank Feather (Feather 2002) and Bill Quain (Quain 2008) also amplifies the future consumer trend. They amplify the internet impact to business operations and identifies that consumers will start shopping where there are additional value added and is a possibility to earn profit trough spending and expanding networks.

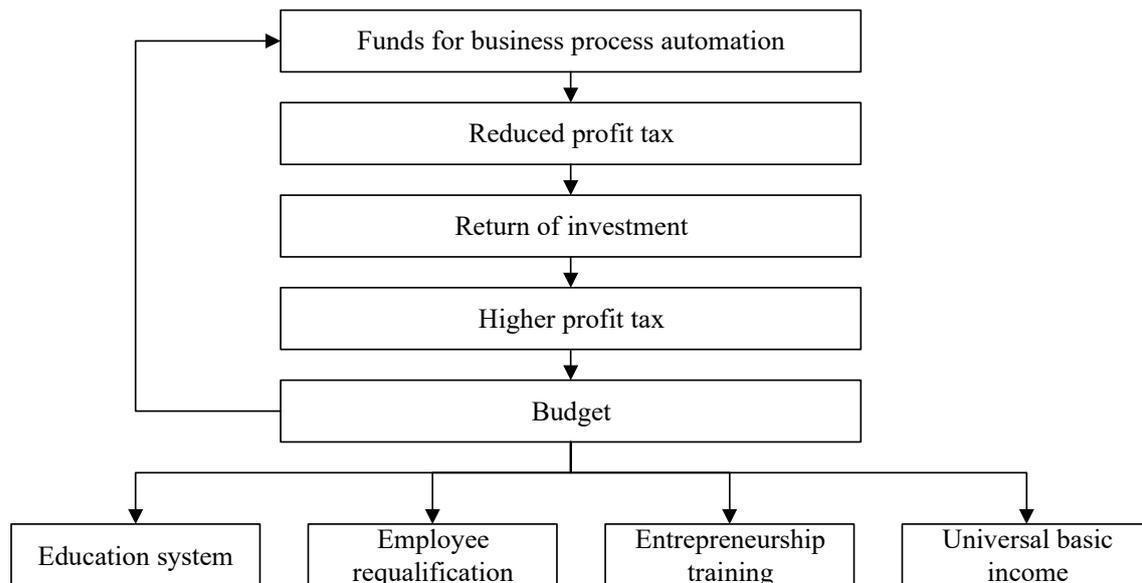


Fig 2. Tax-subsidy scheme

Figure 2 represents the proposed tax-subsidy scheme to limit the negative consequences of the fourth industrial revolution. Companies should apply to a fund to receive capital for business process automation. During the period while the system does not return profit, a reduced profit tax should be applied to the company. After the period of return of investment ends a higher profit tax should be applied, which would be distinguished in to main five areas. Firstly, the same fund should be refinanced to increase the subsidy coverage. Other area of investment should be oriented to recreation of the educational system, which is lagging to provide necessary employee skills to the current market demand. So these funds should be used for infrastructure expenditure and welfare for the unemployed, however this payment is only for those who decide to adapt their skills to a new profession. A similar budget part is entrepreneurship, however it focuses on mentorship and teaching people how to operate personal businesses. Lastly, the universal basic income would be paid to those who cannot adapt to a new position or does not have the ambition to build their own business. These people would receive their payment only by contributing to society in other possibilities ways like environment, culture, entertainment and so on.

Conclusions

Rapid technology innovations has drastically influenced the economy, which in result caused instability in the labour market. On one hand, businesses need extra funding since technology implementation in their processes require high initial investments. On the other hand, the analysis indicated that innovative technologies will cause many jobs to disappear from the market and will generate new occupations, which were not possible in the past. Therefore, the government must introduce a tax-subsidy scheme to stimulate economic growth and limit the negative effects of rapid growth of productivity. The payment of universal basic income (UBI) is necessary to soften the lag between market demand and labour market's requalification period.

The education system must be reformed to teach not only programming and engineering skills, but also provide leadership, public speaking, creative thinking and other necessary traits, which are essential to survive during the upcoming fourth industrial revolution.

References

- Allen, R.C. (2014). The British Industrial Revolution in Global Perspective: How Commerce Created The Industrial Revolution and Modern Economic Growth. Unpublished, pp.1–41. [revised 2017-08-15], <http://papers3://publication/uuid/081AED1F-F9E8-4654-B321-F739DC40358E>.
- BBC (2017). Japanese insurance firm replaces 34 staff with AI. [revised 2017-08-23], <http://www.bbc.com/news/world-asia-38521403>.
- Bernstein, E. (2016). 2016 GLOBAL R & D Message from the IRI President. R&DMagazine.
- Bloomberg (2014). Virtu Touting Near-Perfect Record of Profits Backfired. [revised 2017-08-30], <https://www.bloomberg.com/news/articles/2014-06-04/virtu-to-uting-near-perfect-record-of-profits-backfired-ceo-says>.
- Business Insider (2017). Elon Musk doubles down on universal basic income: "It's going to be necessary". [revised 2017-08-17], <http://nordic.businessinsider.com/elon-musk-universal-basic-income-2017-?r=US&IR=T>.
- Business Insider (2015). How Uber's autonomous cars will destroy 10 million jobs and reshape the economy by 2025. [revised 2017-09-04], <http://www.businessinsider.com/ubers-autonomous-cars-destroy-10-million-jobs-reshape-economy-2015-2?r=US&IR=T&IR=T>.
- Coase, R.H. (1934). The Nature of the Firm. Economics.
- Commission, E. (2013). Cyber-Physical Systems: Uplifting Europe's Innovation Capacity. Report from the Workshop on Cyber-Physical Systems, (December).
- Commission, E. (2014). Small Businesses First.
- DHL Trend Research (2014). Self-Driving Vehicles in Logistics, Troisdorf.
- Feather, F. (2002). Future Consumer.com.
- Federal Reserve Bank of New York (2017). Household Debt Increases Substantially, Approaching Previous Peak. [revised 2017-09-08], <https://www.newyorkfed.org/newsevents/news/research/2017/rp170216>.
- Fleming, J. & Kiyosaki, R. (2010). The Business of the 21st Century.

- Insider Business (2016). Obama just warned Congress about robots taking over jobs that pay less than \$20 an hour. [revised 2017-08-11], <http://www.businessinsider.com/obama-warns-congress-about-robot-job-takeover-2016-3?r=US&IR=T&IR=T>.
- McKinsey (2015). Four fundamentals of workplace automation. [revised 2017-08-12], <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/four-fundamentals-of-workplace-automation>.
- Pilzer, P.Z. (2007). The New Wellness Revolution: How to Make a Fortune in the Next Trillion,
- Quain, B. 2008. Pro-Sumer Power,
- Ray, L. (2017). Cyber-Physical Systems: An Overview of Design Process, Applications, and Security, IGI Global.
- The Chronicle of Higher Education (2016). MIT Dean Takes Leave to Start New University Without Lectures or Classrooms. [revised 2017-09-05]: <http://www.chronicle.com/article/MIT-Dean-Takes-Leave-to-Start/235121/>.
- The Times (2017). Mark Cuban Says This Will Be the No.1 Job Skill in 10 Years. [revised 2017-08-22], <http://time.com/money/4676298/mark-cuban-best-job-skill/>.
- The Wall Street Journal (2016). Fully Autonomous Robots: The Warehouse Workers of the Near Future. [revised 2017-09-02], <https://www.wsj.com/articles/fully-autonomous-robots-the-warehouse-workers-of-the-near-future-1474383024>.
- The World Bank (2017). GDP statistics. [revised 2017-08-27], <https://data.worldbank.org/indicator/NY.GDP.PCA.PD>.
- World Economic Forum (2016). Five Million Jobs by 2020: the Real Challenge of the Fourth Industrial Revolution. [revised 2017-08-03], <https://www.weforum.org/press/2016/01/five-million-jobs-by-2020-the-real-challenge-of-the-fourth-industrial-revolution/>.

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Valentas Gružasuskas received bachelor degree in “Applied Mathematics and Economics” in 2014, master degree in “Industrial Engineering and Management” in 2016 and since September, 2016 started studying PhD in management science. The main research area is operation research in logistics with a focus on logistic cluster development and innovative technology usage. Due to mathematical background, Gružasuskas focuses on quantitative analysis by conducting simulations, stochastic and dynamic models and other analytical approaches to amplify the developed theories. Gružasuskas also is working as a freelance data analyst with a focus on statistical analysis, web scraping and machine learning. Kaunas University of Technology, PhDC, Valentas Gružasuskas. E-mail: Valentas.gruzasuskas@ktu.lt.

Gita Statnickė. Lecturer, Klaipeda State University of Applied Sciences, Lithuania; PhD student of Management, Kaunas University of Technology, Lithuania. Field of scientific research: Human resource management, Entrepreneurship. E-mail: g.statnicke@kvk.lt.



SITUATION OF THE BUILDING INDUSTRY SMBS SINCE THE CRISIS

Péter Földi¹, Judit Tóth², Emese Melinda Bogáth¹

¹Szent István University, Faculty of Economics and Social Sciences - Doctoral School of Management and Business Administration (Hungary), ² Szent István University, Faculty of Economics and Social Sciences

Annotation

In the ever-changing economic environment, micro, small and medium enterprises had to and continue to have to find the possibilities to survive and develop. In the meantime small and medium-sized enterprises have brought about hundreds of thousands of jobs to replace and instead of the old ones; therefore they have become a determining factor of the economy. Nowadays, it is an important question in what ways and using what kind of means their development can be promoted. In developed countries, there are no definitive answers either and the answers are not known to all the problems. One of the most important areas in the Hungarian economy on its way to turning into an advanced market economy is the development and strengthening of SMBs. In spite of their outstanding role, these enterprises suffer significant disadvantages as compared to their corporate counterparts, due to their size and their operational risks, in obtaining the financial resources they would need for enterprise development and maintenance. For this reason, more and more attention is being paid to the access of SMBs to funding sources and the removal of their obstacles in this regard. In exploring the financing possibilities of SMBs, internal and external financing tools are exposed as available for enterprise operation and development. We are going to take stock of the impact of CSOK on the building industry. In addition, we are looking at the impact of each factor and the extent of their contribution to the performance of SMBs. How does the insufficient labour force affect the capacity utilization of enterprises?

KEY WORDS: economic incentives, small and medium-sized enterprises, subsidies

Historical development of SMBs in Hungary

In the beginning of the 1990s, Hungarian small and medium-sized enterprises had considerable potential benefits compared to their other counterparts in transition economies in two aspects:

- they were in a position to gain entrepreneurial experience for nearly a decade at the impact of the 1980s,
- on the other hand they became confronted earlier by the legal and regulatory environment of market economies.

In the period of the early transition economy of 1990-1996, the development of Hungarian SMBs can be divided into two phases from 1990 onwards:

- 1990 was the beginning of the early phase: the Hungarian economy started to turn into a market economy economically and politically.
- The period from 1990 to 1997 was that of the early transition economy, in which the small and medium sized enterprises sector and its economic environment displayed the following typical traits:

At the beginning of the period, the economy based on shortage turns into a competitive economy. A rapidly growing number of businesses emerge, the vast majority of them micro-enterprises. The ratio of foreign trade to GDP rises rapidly, as a result of which the openness of the economy is increasing.

The creation of frequently amended new laws exposes small businesses to a serious adaptation problem, in the result of which the regulatory environment becoming rapidly liberalized turns increasingly unstable.

There is a high-rate and initially robust growth in revenue concentration as the inherited welfare and other

public spending of the past needs to be funded through redeployment from receding revenues.

The small business sector becomes "diluted" by many new entrepreneurs and its quality indicators are deteriorating. There are a high proportion of enterprises unable to survive or grow.

From 1997 the advanced transition economy:

- The economy based on shortage comes to an end.
- The institutional framework of market economy is established (tax laws, legal framework for the establishment, operation and termination of businesses, bankruptcy law, etc.) and the foreign trade of the country is liberalized.
- The regulation of import is becoming increasingly more liberal, some of the foreign-owned enterprises domiciled here sell in the local market, and the performance of locally owned businesses, as well as their competition with each other is intensifying.

The regulatory environment is beginning to stabilize in the advanced phase of the transition economy. The indicators of small and medium-sized enterprises describing the quality of management are improving, and the proportion of businesses capable of involving external funding sources is on the increase. Financial intermediaries determine the creditworthiness of their clients based on well-defined indicators. They are scarcely present on the foreign markets, and sell primarily to the public, to a lesser extent to domestic businesses. In the period from 1997 until today it is worth separating the one that lasted until the beginning of the 2008 crisis from the one that followed after that. The period favouring the development of SMBs lasted from the middle of 2001,

when the foreign currency liberalization became valid, until the outbreak of the crisis in 2008.

Businesses more tightly related to the global market felt the impact of the crises as early as in 2008 (large companies, export-oriented companies). By 2009, however, most of the companies in the economy experienced a fall in credit supply and a fall in demand. The impact of the economic crisis on domestic small and medium-sized enterprises:

- fall in demand,
- a growing number of delayed payments,
- fall in credit offered by banks,
- emergence of solvency problems,
- increase in the importance of informal financing (family, friends),
- resulting drop in investments and consumption and an increase in the financing costs of companies,
- companies suffer a disadvantage in international competition due to high tax burdens,
- resulting shift to gray-black economy.

The decrease in the number of SMBs stopped in 2010, while revenue growth started to increase, however employment continued to drop with the average size of companies decreasing.

The transformation in terms of employment and competitiveness of the SMB sector also took an unfavourable turn in the period following the crisis.

Characteristics of the SMB sector

It is of special importance that the operation of businesses should be examined on the basis of the following three areas:

- ownership structure, management and structure,
- weak bargaining position and
- capital saving scope of activity.

Their closed ownership structure typically represents a lack of professional skill and ability, since few owners are often an indication of a lack of sufficient expertise. Thus, business operations cannot be the most effective and optimized, as professional capital is one of the most important resources for business. Furthermore the rigidity of owners to changing the closed business structure limits their opportunity to involve funding. The smaller a company, the less governance gets separated from the owner, that is, there is a lack of delimited scopes of activity and positions get merged with each other.

The weak bargaining position of SMBs applies to both buyers and suppliers. Competitors enter the market relatively easily, as their activity is typically not capital intensive. The existence of a weak bargaining power also applies to their ability to assert their interests vis a vis financial institutions. The majority of companies are established with minimum capital on the basis of statutory requirements for SMB. There is a financing problem already at the founding stage, which usually accompanies the lives of many businesses. By choosing a business scope with low capital intensity, the disadvantage of under-capitalization can be reduced.

The successful operation of businesses requires several existing financing elements. The most important financing features are as follows:

- Low capital availability is typical for micro as well as small and medium-sized businesses, for which reason they are at a serious disadvantage compared to large companies, which can be a problem in using any external financing element. The initial state of being undercapitalized intensifies and an even greater debt plagues funding. One of the reasons for this is that the basis of the financial resources of businesses is ensured by the owners' assets, and on the other hand, the small company has a limited ability for self-accumulation.

- Due to their weak capital strength, these companies are unable to take higher risks because they cannot bridge the steady fluctuations in revenues and their default. Traditionally, low risk taking can also be ascribed to cultural and personal reasons. SMBs, with few exceptions, do not engage in activities that only generate losses for years or where initial investment pays off only in the long run. This is not the reason why they are unable to finance the initial losses without the help of capital.

- Businesses are constantly struggling with liquidity problems in case of chronic underfunding so that they can maintain their solvency. In most cases, companies are also involved here the business of which runs smoothly. The main reasons for solvency problems is underfunding resulting from lack of capital and, respectively, the emergence of a net lending position resulting from their weak bargaining position in their customer and vendor relations.

- SMBs can be placed at a disadvantage versus large companies by the transaction costs of using external financial resources. Due to economies of scale they can have only a part of the high transaction costs of the smaller amount of loan paid by their customers. The transaction cost is inversely proportionate to the external capital they intend to involve.

- The lack of transparency in this sector could be a major problem. Small businesses do not operate in a transparent way. By doing so, fundraisers handle their annual reports carefully, as quite presumably they fail to represent real data.

- The primary consideration for those extending external resources is to have their risk minimized by hedging. Hedging requirements of financiers is that it should retain its value, be liquid and easy to trade. An under financed business with low capital intensity is hardly able to provide sufficient guarantee (hedge). Small businesses are at a serious disadvantage compared to large companies in terms of the involvement of financial resources. One of the reasons is that the financial resources of businesses are based on the owners' assets. Another reason is that a small business - due to its size - has limited self-accumulation ability.

Life-cycle models

Different life-cycle periods can be distinguished for most of the companies the knowledge of which is crucial in terms of their capital requirements and, eventually, the possibilities of their funding. Life cycle models try to outline the company's career path. Life stages are divided into staggered stages, which can be identified on the basis

of relatively uniform characteristics. Companies' life paths may differ according to their individual external and internal capabilities. There are several models in the literature, the most important difference being the basis on which the individual life stages are identified. Most life-path models address only the development stages of companies, but there are some that analyse them right from the period before the foundation of the company to the end of their operation. Extremely detailed analyzes have been conducted into each stage of the life-cycle. Several of them divided a company's life-cycle into 4 or 5 phases, among them the models that focus on SMBs. The majority of life-cycle researchers used the characteristics of company management and organizational structure as a basis for separating from each other the respective life-cycle phases, which are based on hard-to-measure properties.

Timmons (1990) seeks to eliminate this, assigning specific time periods to the individual stages of the life-cycle, as well as dividing three life-cycle phases according to income and headcount.

Adizes' (1992) is one of the most widely used models that compares the phases of development with the more complex, size-and-revenue-independent lives of living organisms. It tracks the development of a company until it is set on a stable growth path; therefore it is suitable for examining the development of SMBs.

Larry Greiner (1972) divides the life-cycle into five phases, separating them into evolutionary and revolutionary periods. Evolutionary parts show a calm and balanced development, while crises characterize revolutionary phases. The managerial decisions taken in the revolutionary period play a key role in the company's future. These decisions determine whether the company is able to move on to the next growth phase or if it starts to decline.

Research on small and medium-sized enterprises in the country is widely processed by Mrs. Salamon's model, who also tested them on a high-numbered sample. The four models are summarized in Table 1 below.

Table 1. Phases of life-cycle models

PHASE S	TIMMONS	ADIZES	GRELNER	MRS SALAMON, ANNA HUSZTHY
1.	Phase of research and development	Courting phase	–	–
2.	Initial phase	Infancy	Creativity	Kick-off phase
		Let us go, come on! phase		
3.	Early years of growth phase	Adolescent years		Creativity phase
4.	Maturity phase	Adulthood (manhood)	Governance phase	Governance phase
				Delegation phase
5.	Stabilizing phase	Established organisation	Coordination phase	Phase of steadiness
			Cooperation phase	

Source: Timmons [1990]; Farkas [2005]; Mrs. Salamon 2006

All of them divide the life-path model to five larger phases, with a different distribution.

Timmons does not address the decline of a business in his model; he focuses more on the growth phase of the life-path, with the primary aim of making it sustainable once it is reached. His typifying resembles to a great extent the traditional product life-cycle curve phases.

Adizes' model stands out with its detailed segmentation. Several alternatives are outlined for businesses at the end of each stage, yet each stage holds the option of decline in its respective end considering the models. Several indicators offer themselves to be suitable to measure growth.

The company's past was first taken into account by Greiner, which includes the company's internal capabilities and the external industry environment. They modelled their career paths according to two factors, taking into account their age and size. It distinguishes between evolutionary and revolutionary phases. Developmental periods are evolutionary stages, while the problems of how to proceed that emerge at the boundaries of business life cycles are reflected in the revolutionary stages.

Mrs. Salamon has already taken into account the peculiarities of SMBs. She has created her own model from the previously-created ones (Adizes and Greiner models). She also synthesizes into five phases the most advantageous properties of the two foreign models. She states that life cycle phases are not sharply delimited and that organisations do not necessarily follow every development phase. Certain problems are easier to handle because the features of the cycles can be recognised and thus predicted.

There are several common and more controversial aspects among the models. The two most prominent issues are the mode of transition between life stages and that of the continuity in time of the life course. Nevertheless, it can be said in general that each model is capable of testing companies individually, and can help solve problems such as capital requirements. Their use may help companies in designing their short-term alternative future.

Peculiarities of micro, small and medium businesses

One of the milestones of our economy's development is the accession to the European Union in 2004. At the same time, Act XCV, 1999 on small and medium enterprises was replaced by Act XXXIV, 2004, which, among others, addresses the development of SMB. As a consequence of the new law, the classification of SMBs changed in two steps. It is important to note that, as of 1 May 2004 a temporary provision was introduced to bridge the gap until the enforcement of the new law on 1 January 2005. As a result, both sales and balance sheet values of SMBs changed at both times. Nevertheless, according to the recommendation of the European Union in 1996, the number of employees remained unchanged from the beginning.

As of 1 January 2005 the legal regulation of SMBs has been as follows under Act XXXIV, 2004:

(1) SMB is an enterprise with less than a total of 250 employees and annual net revenue not higher than a HUF amount corresponding to EUR 50 million or its balance sheet not exceeding a HUF amount corresponding to EUR 43 million.

(2) Within the SMB category, a small enterprise is defined as an undertaking whose total number of employees is less than 50 and its annual net sales or total assets do not exceed a HUF amount corresponding to EUR 10 million.

(3) Within the SMB category, a micro enterprise is defined as an undertaking with an overall number of employees less than 10 and the annual net revenue or balance sheet total not exceeding a HUF amount corresponding to EUR 2 million.

(4) An enterprise is not an SMB if the direct or indirect ownership of the state or local government exceeds 25% individually or collectively, by virtue of capital or voting rights.

As a result of the change in the categorization of businesses almost 1,000 companies were transferred to another category, which resulted in changes in the proportions of micro, small and medium-sized enterprises by sector, for which reason more companies are enabled to access subsidies.

Based on their economic significance, performance, their role in achievements and prospects, companies are classified into the following three main groups by the Strategy for Development of Small and Medium Enterprises (2007):

- Fast growing businesses,
- Businesses sustaining their level,
- Businesses lagging behind.

Fast-growing businesses: they constitute 15% of all businesses, and they are in their expanding or mature state of their lifecycle. They are capable of increasing their business income and expanding abroad in addition to domestic expansion, often being innovative small businesses. Their annual growth can even exceed 20%. The stability of their financial situation allows for bank financing. These enterprises contribute most to growth and development. They are characterized equally by economic growth, accelerating market mechanisms and increasing competition.

65-70% of businesses belong to the ones sustaining their level, and they can be classified on the basis of their lifecycle anywhere from their initial phase to having reached the phase of maturity. Stagnation is moderate, neither improvement nor deterioration can be expected in their case. More than two-thirds of the companies in this group operate as a private business, and are a micro business with single-entry book-keeping, i.e. private or general partnership. The personal business income of the business grows moderately. Considering their financing methods they can be family or friendly loans. They rarely use or are able to use the tool of bank financing. In addition to legal and financial consulting, they also need business and management skills consulting in their operation. Micro lending and loan guarantees are typical of their financing.

Typically, 16-20% of businesses constitute the group of those lagging behind, which companies are in either

their initial or declining stage of life. The situation of these companies is bad or even in a critical state. Their turnover, their capacity utilization decreases, their sales opportunities and their performance deteriorate. They are mainly selling their products and services to the public. Bank financing cannot be used because of their poor financial situation and their past. If their internal resources do not provide coverage, they can only rely on family or friendly loans. They need continuous advice on their operation.

The functions of micro, small and medium-sized enterprises, and the role they play in the economy

Large companies have outsourced a significant part of their activities for the sake of reducing their costs, so the economic role of SMBs has become more important. A considerable part of suppliers come from the pool of smaller and more resilient businesses. In Hungary small and medium businesses constitute the most widespread form of enterprising and business management. They also played a major role before the change of regimes. At that time, one third of jobs, while since 1994, two thirds of the jobs have been provided by them, mainly due to the massive disappearance of jobs in large enterprises. Nowadays, in Hungary, 99.8% of all registered businesses (according to the distribution of headcount) are SMBs. As a consequence, the SMB sector plays an important economic role in the country's income generation, foreign capital management and investment.

The performance of the small and medium business sector declined following the crisis that broke out in 2008, and could not recover until 2013. The crisis impacted far more heavily SMBs, than larger companies. The most important indicators like the number of SMBs, employment and value added fluctuate around 90% of the 2008 values. The number of SMBs decreased by 4% between 2009 and 2013, more than 22,000 SMBs disappeared, resulting in a drop by 2% (net 32,500) in the number of jobs. Gross value added dropped by 6% over the same period. According to forecasts value added generated by SMBs is expected to increase by 0.3% by 2016. The number of employees is expected by forecasts to drop by 0.9% per year. This translates to about 30,000 employees if considering the years of 2015 and 2016.

However, the employment rate of Hungarian SMBs is 3% higher than the EU rate: while in Hungary this figure is 70%, the EU average is 67%. Nevertheless, value added in Hungary is 4% lower than in the EU as a whole. In Hungary, the efficiency of SMBs is low, as compared to that, large companies represent lower employment rates and higher added value, hence the proportion of employees within the sector is much higher than their production indices would justify. It should be noted that in spite of the generally weak performance of SMBs between 2009 and 2015, they achieved a remarkably high growth of 31% in the information and communication sector, adding 3% more employees in the sector.

The innovative potential inherent in businesses is an additional advantage of the SMB sector, which comes through predominantly in the field of inventions. Thanks to their innovative and competitive power, small and

medium-sized enterprises can become the cornerstone of economic development and market economy, but it is important to point out that there are currently few truly innovative businesses. Due to this and the high number of enterprises, the SMB sector ensures the existence of market competition in a number of sectors. Differences can be observed between different regions of the country based on the economic sectors and the size of the headcount employed. There are several factors influencing the number and structure of businesses. In terms of location they are situated in the central region, i.e. in Budapest and Pest County, and their number almost reaches half a million. In terms of their distribution by sectors and trade, it can be generally stated that three quarters of SMBs are represented in the real estate businesses and business services, trade and repair as well as the building industry and agriculture sectors.

The typical scope of activity of the SMB sector in labour intensive sectors:

- Micro businesses: retail trade, tourism, financial intermediary activity
- Small businesses: publishing, wholesale, clothing industry, wine and wood product manufacturing
- Medium businesses: food processing, transportation, plastics industry.

26% of SMBs operate in the retail and wholesale sector. This sector employs 26% of all SMBs employees and generates 22% of the total value added of all SMBs. In the manufacturing sector, large companies have a decisive role in Hungary, as micro and small enterprises produce less than a third of added value.

According to the KSH data of 2015, the number of SMBs was 674,416. Considering the number of employees the number of those who can be classified into this sector is less by 142,149 persons. In the year under review, the net sales of SMBs amounted to HUF 37,909 billion. The gross value added of companies is HUF 7,880 billion, which means that HUF 2 billion less can be attributed to the sector than in the case of classification by headcount categories (KSH, 2016)

Status report of the building industry from a few years' distance

As building industry is the country's major driving force, I would like to continue with its industry analysis.

The prevailing state of the performance of building industry can be generally stated to depend on the demand for construction emerging and varying in the function of macro-economic processes. The performance of the building industry in any given year is determined, among other things, by the amount of the central budget and local government funds earmarked for investment in construction projects, renovation, and maintenance work, demand of the private sphere for investment and the demand of the population (KSH 2003). In recent years, the latter has risen sharply, thanks to the CSOK program of the current government.

Before looking at the economic weight of building industry, let's look at what kind of macroeconomic processes affect it:

Hungary's economic performance in figures

The table below illustrates well how Hungary's GDP indicator evolved over the past 15 years. In 2009, the volume of gross domestic product was only 93.4%, which is a significant proof of the 2008 economic crisis. Our next negative record is the 2012 figure, with its 98.4%, which clearly indicates the recession due to the collapse of the domestic currency market. The period from 2013 to 2016 was largely sufficient to allow Hungary to recover more or less from the foreign exchange crisis, - or at least to get consolidated to some extent in the result of which analysts expect a moderate yet firm GDP growth in 2017.

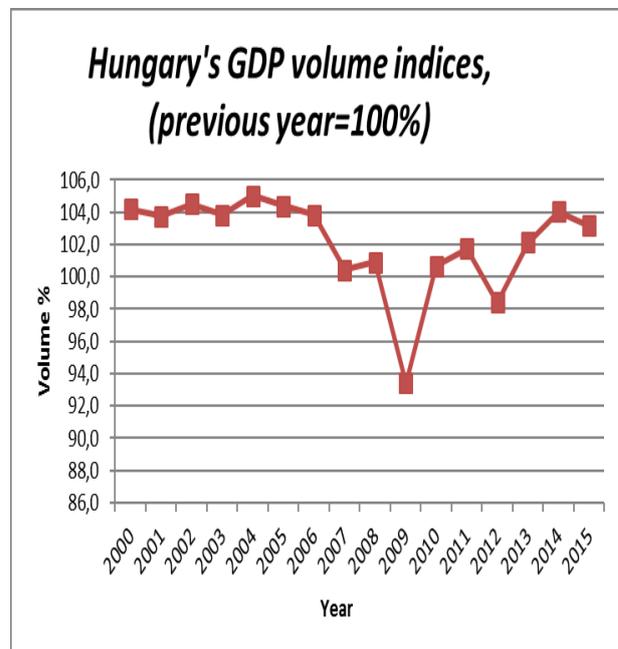


Fig. 1 Hungary's GDP indices between 2000 and 2015
Source: Self-edited on the basis of KSH data

The 2008 crisis did not spare the building industry either, the weight of its contribution to GDP in the ensuing years shows a gradual decline, which is to be illustrated in the table below. Calculating at current prices the weight of building industry fluctuated from 3.9% to 5.8% from 1995 onwards, at the same time it steadily declined between 2006 and 2013 (at the impact of the crisis) then again it rose to 4.3% in 2014. (Source, KSH, 2015). In addition to the building industry, I also show data from a few other sectors, so as to allow a clear assessment of the position of the performance of building industry relative to other sectors.

Table 2. Contribution of the building industry to GDP between 2000 and 2015

Year	Gross domestic product (at current prices, HUF million) >100%	Agriculture (%)	Building industry (%)	Commerce (%)	Tourism (%)	Financial activity (%)
2000	11 367 299	5,73	5,12	9,86	1,94	3,86
2001	13 299 498	5,62	5,45	10,31	1,90	3,68
2002	15 126 813	4,83	5,78	10,60	1,96	3,98
2003	16 388 592	4,49	5,41	10,11	2,03	4,19
2004	17 978 221	5,04	5,35	10,08	2,06	4,31
2005	19 346 002	4,28	5,74	10,06	1,96	4,79
2006	20 959 964	4,05	5,35	10,54	1,90	4,86
2007	21 961 795	3,98	4,95	10,69	2,04	4,55
2008	23 172 330	3,95	4,92	11,20	1,91	4,39
2009	22 331 803	3,51	4,88	9,93	1,94	5,05
2010	22 915 330	3,55	4,22	9,94	1,81	4,97
2011	23 919 662	4,62	4,12	10,13	1,80	4,77
2012	24 070 712	4,60	3,88	9,99	1,68	4,56
2013	25 399 647	4,59	4,05	10,50	1,73	4,01
2014	27 302 406	4,70	4,27	10,36	1,73	3,91
2015	28 513 085	4,13	4,15	10,38	3,91	3,73

Source: Self-edited on the basis of KSH data

As a general trend it can be stated that in the years following the crisis of 2008 the demand fell back, orders declined and, due to the high rate of increase in the prices of loans and changes in financing ratios public investments completely ceased and buyers disappeared from the demand end of the housing market, who were mostly young people around 30 who intended to purchase flats by paying 10% of it from their own funds, although the sufficient level of this ratio would be around 25-30%. At that time circular debt was assessed to be around a value of HUF 400 million in the Hungarian building industry, close to half of which was impossible to collect according to analysts. Under such circumstances only capital intensive firms were able to survive.

The currency crisis that broke out in 2012 only worsened the situation of the building industry, because people basically did not feel balanced in their financial position. A large part of the population showed a great degree of indebtedness, which resulted in what can be called a loss of confidence in banks. While there are only few jobs that offer a secure financial background, the placement of long-term loans does not seem to be as dynamic as it used to be before and all this has a negative impact on building industry, among others.

We can also see from the table that, after the year 2012, there is a growth trend emerging, since the success of the Family Home Benefit (CSOK) mentioned above and the current EU support cycle (2014-2020) fundamentally increase the orders and performance of companies. One can however assess it as a risk that due to the massive redundancies of the previous year, there is

a shortage of professionals in the industry at this time, and under such conditions the provision of mass housing can be problematic.

The organisational framework of the building industry

The building industry continues to be characterized by a large number of organizations, among them micro and small enterprises. 88 734 building industry businesses were registered in late 2015, 1.2% less than one year before (92 211). The highest number of businesses (59,066) operates in the special construction industry sector, more particularly nearly 30,000 of them - i.e. 30% of all building industry companies - in the building engineering-assembly sub-sector.

The dominance of micro-enterprises is shown by the fact that 89.9% of them employ fewer than 5 people. Their number is especially outstanding in the special construction industry, in particular in the building engineering and finishing construction sub-sectors.

Employment indicators

At the impact of recession, the industry parted with about 83,000 to 85,000 employees in the years 2007-2013. The figure below glaringly illustrates this drastic workforce reduction.

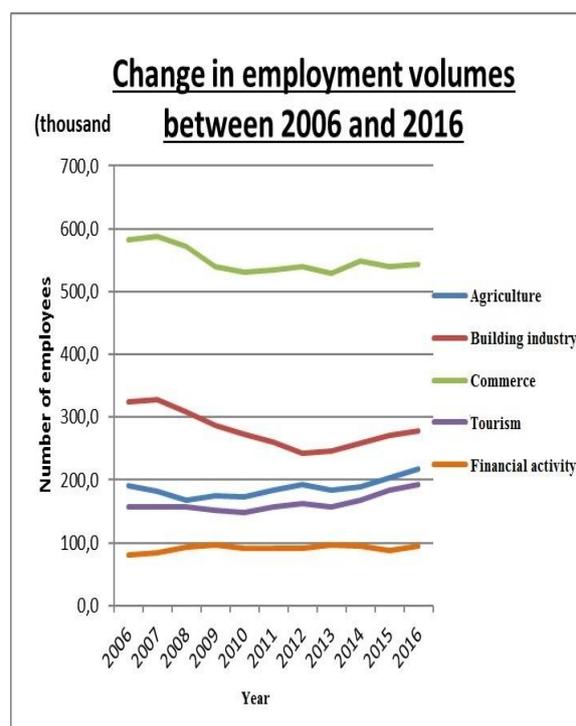


Fig. 2 Change in employment volumes between 2006 and 2016

Source: Self-edited on the basis of KSH data

In early 2014, the total number of employees was 258,000, including those employed with a contract amounting to 108,300 people. A higher degree decline occurred in the contractual and service forms of engagement. The decline stopped in the latter half of 2013, and a slight increase could be observed. According

to a survey of the population's employment data the 271.9 thousand people employed in the building industry accounted for 6.5% of total employees in the national economy in 2015. In the competitive sector, the number of employees is higher than in the building industry only in the manufacturing industry, trade and vehicle repair sectors of the national economy.

It can be concluded from the above that due to the unfavourable economic impacts of the previous years the industry is struggling with a shortage of staff and professionals. According to GKI's survey, the demand and labour shortage roughly equally embitter the producers' lives. According to ÉVOSZ, a major limiting factor is still the high public burden on live labour and the growing administrative burden confronting SMBs.

Investment

In general, domestic investment costs have decreased to some extent in the recent period (2015-2016), but they are still high (especially in the light of the declining producer price index), mainly due to EU funding and Growth Loan Program (s) most enterprises do not want to borrow at all. Although SMB-s capable of developing a relatively low-cost source, some of these companies are afraid of a rapid growth in order not to become a new victim of nationalization. Since 2016, EU funding has also enabled a 0% interest rate credit facility for investment purposes. The investment rate was 21.7% in 2014, 21.3% in 2015. It is expected to be below 19% in 2017, which is a low rate for a moderately developed country. In 2017, a reinvigorated EU investment cycle is expected to result in a 5% increase in volume and a 19.3% investment rate.

The willingness of building industry to invest in the light of loans

Basically, we know that the more its financial reserve the higher is a company's willingness to invest. However, unfortunately, nowadays it is hardly the case for building industry businesses; what is more, their liquidity is rather weak in most cases.

To crown this commercial banks continue to consider the riskiest financing building industry firms since 2008. 2014 was the year of several governmental measures and the Hungarian National Bank's economic stimulus program, which provided the basis for maintaining the industry's momentum in 2015. "However, due to market uncertainties, only a few construction companies were able to join the stimulating lending program in 2015". [ÉVOSZ, 2016, page 4].

In 2015, building investments fell by 2.3%, while machinery investments increased by 4.1%. In 2016, construction investments drop by 20%, machinery investments by 1%, while in 2017 construction will once again become more dynamic (8%) due to the growing EU subsidies. This is illustrated by our next figure.

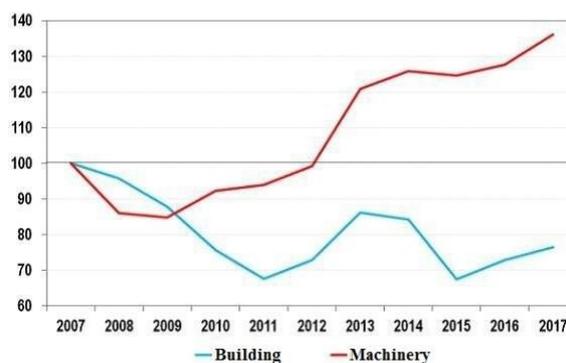


Fig. 3 Building industry and machinery investments between 2008 and 2017 Source: KSH, GKI Gazdaságkutató Zrt.

In 2016, domestic purchasing power expanded significantly, with an especially lively housing market. At the same time Hungary still seems unable to attract large investors (the volume of new, announced improvements is small, with the exception of Mercedes expansion, and they are accompanied by a substantial government support), while domestic-owned, typically small and medium-sized companies still fail to be able to break through.

Productivity of the building industry

The year of 2016 year was quite hard for the building industry: production was reduced by 24%, mainly due to the ebb of EU subsidies. The performance of civil engineering was practically half of what it used to be. At the same time, housing construction started climb: about 11% more homes were sold than a year ago. Construction investments in the national economy decreased by 33% over the same period, while the sector's own investments fell by 10.5%. The above is well illustrated by the rhapsodic volume changes in the figure below.

The profitability of the building industry showed deterioration as early as in 2015 (according to Opten, the profit of the sector fell by 13% on an annual basis). However, in the first half of the year, 13% less building industry companies were terminated than a year earlier. One can feel a kind of rearrangement with the sector getting more transparent, but the number of liquidations continues to be excessively high within company termination, which means the confidence crisis is far from coming to an end. The number of newly established companies grew by 30%, a part of which may clearly be ascribed to the expansion of "CSOK", as the housing industry practically attracts project firms.

As previous years testified to it, the performance of the sector depends to a great extent on the cyclical nature of EU subsidies, so that the resources available in a wider volume this year will have a positive impact on the industry, which is further supported by the governmental housing policy measures and running projects (World Aquatics Championship, Paks 2). Investments in building industry are also fuelled by the fact that in the sector, which in the previous years was on a constantly regressing path of movement, capacities have been

curtailed due to which a great part of building industry firms reported a lack in capacities in late 2016.

According to prevailing trends 2017 will be a noticeably better year for the building industry, as real estate development projects starting in 2016 are expected to gradually begin to make their impact felt, and on the other hand, large-scale infrastructure developments of the previous years will also be removed from the base.

Summary

The importance of SMBs is not only of an economic nature, but besides the role it plays in employment; it is also of paramount importance in economic growth, innovation activities and in improving the competitiveness of economy.

At the same time, SMBs with Hungarian interest in many cases have little capital and are still struggling with regular liquidity problems. Due to their weak bargaining position, high labour and low capital intensive activity, and less than a sufficient level of professional leadership they are more sensitive in responding to changes in the external business environment. Whereas they take a greater share in providing employment than in revenues and income generation, their performance is inferior to that of their counterparts in more developed countries.

When exploring the options of SMB financing, several internal and external financing "tools" are available for the operation and development of businesses. In the case of SMBs the decisions taken in the course of planning financing the focus is on finding solutions with the help of which liquidity can be sustained, i.e. they strive to align the maturity structure of resources and assets.

In Hungary, micro-enterprises that account for the majority of SMBs develop and invest from their profit, and the savings of their family, in the first place. It can be stated that the vast majority of enterprises seek to meet their funding needs within the framework of non-institutional forms of financing and only if this volume of funding is insufficient they will turn their attention to institutional forms of external financing, more particularly loans.

In 2008, due to the impact of the economic crisis, the growth rate of lending to micro, small and medium-sized enterprises slowed down. Banks typically became more cautious in lending, while SMBs are typically more cautious in borrowing, and they continue to be that today also. Domestic SMBs, in addition to their prevailing business nature and economies of scale are at a disadvantage compared to the corporate sector in acquiring external funding. This can be explained by the fact that large companies are able to rely heavily on their operations and developments abroad, while SMBs in these cases rely mainly on their domestic borrowing opportunities, and thus the success of their financing depends to a large extent on the willingness of banks to lend.

According to international trends any country's financing habits and possibilities are determined in the first place by the country's financial and legal infrastructure. Thus, the financing habits of enterprises are more determined by the quality of the financial

intermediary system in the region and the legal and tax environment. The more advanced the country's financial intermediary system, the more the sources of institutional funding such as bank loans and credits, leasing and factoring are the most significant financial resources for SMBs. Other non-institutional foreign capital resources are generally costlier and rather haphazard in their availability.

A multitude of court cases and litigations can be expected in the building industry due to the unexpectedly high cost increase of building materials this year, and the fact that paying for the labour force as well as support services requires increasingly more money. Most entrepreneurs, namely, stipulated their contract prices by calculating a 5-7 per cent price increase, while, in the meantime, the actual average price increase has been 25 per cent.

The lack of skilled workers is there to aggravate further the situation of the building; however the problems in labour supply will be probably reduced in the future through automating work processes and improving efficiency. It is now worthwhile to develop SMBs because they can expect growth in the long run, which is also predicted by the continuous increase in orders.

Another difficulty is that the limit for the obligation to return VAT has been reduced from HUF 1 million to HUF 100 thousand, which places additional administrative burdens on businesses during the tax reporting period.

References

Books:

- Adizes, Ichak (1992). *Corporate Lifecycles of companies /Vállalatok életciklusai/*, HGV Rt., Budapest
- Bárczi, Judit (2006). *A mikro-, a kis- és középvállalkozások pénzügyi szaktanácsadásának fejlesztési lehetőségei, különös tekintettel a mezőgazdasági vállalkozásokra / Possibilities to improve financial professional consulting for micro, small and medium businesses/*, PhD értekezés, Szent István Egyetem, Gödöllő
- Béza et al. (2007). *Kisvállalkozások finanszírozása /Financing of small businesses/*, Perfekt Kiadó, Budapest
- Göblös et al. (2004): *A vállalati életciklus modelltől /Discussing the corporate life cycle model/* (Vezetéstudomány, 10. sz.)
- Illés, Ivánné (2002). *Társaságok pénzügyei /Finances of corporations/*, Saldo Rt., Budapest
- Illés, Ivánné (2009). *Vállalkozások pénzügyi alapjai /Financial basis of businesses/*, Saldo Rt., Budapest
- Katits, Etelka (2002). *Pénzügyi döntések a vállalat életciklusaiban /Financial decisions in corporate life cycles/*, KJK-KERSZÖV Jogi és üzleti kiadó Kft., Budapest
- Kállay et al. (2004). *A kkv-fejlesztés gazdaságtana /Economics of SMB development/*, Aula Kiadó, Budapest
- Larry E. Greiner (1972) *Evolution and Revolution as Organizations Grow*
- Némethné Gál, Andrea (2008). *Kis- és középvállalkozás banki hitelezésének alakulása (1999-2007) /Bank*

lending practices to small and medium businesses (1999-2007), Hitelintézet szemle, 7. évfolyam 3. szám.

Salamonné Huszty, Anna (2006). *Magyarországi kis- és középvállalkozások életútjának modellezése /Life path modelling of Hungarian small and medium businesses/*, Competitio 5. évfolyam, 1. szám

Timmons, Jeffry A (1997). New venture creation, entrepreneurship in the 1990s, INWRIN

Online papers:

GKI Gazdaságkutató Zrt (2016). *Elemzés és előrejelzés a magyar gazdaság és a külgazdaság legfontosabb folyamatairól /Analysis and forecasting the main processes of Hungarian economy and foreign economy/*

Hitelintézet szemle (Review of Lending Institutions), 7. évfolyam, 3. szám, pp. 265-288.

KSH: Jelentés az építőipar 2015. évi teljesítményéről, /KSH: Report on the building industry's performance in 2015/, 2015, page 4.

2015. évi SBA-tájékoztató - Europa EU

Internet source:

<http://www.ddriu.hu/>

https://www.ksh.hu/sajtoszoba_kozlomenyek_tajekoztato_k_2016_11_30

[http://www2.eco.u-](http://www2.eco.u-szeged.hu/region_gazdfejl_szcs/pdf/konyv7/1fejezet.pdf)

[szeged.hu/region_gazdfejl_szcs/pdf/konyv7/1fejezet.pdf](http://www2.eco.u-szeged.hu/region_gazdfejl_szcs/pdf/konyv7/1fejezet.pdf)
https://www.ksh.hu/docs/hun/xftp/idoszaki/jelepit/jelepit_15.pdf

<http://www.magyarepitesitechnika.hu/index.php/hirek/3235-evosz-az-epitesi-agazat-2016-evi-sulyponti-problemai-javaslatok-ezek-megoldasahoz>

<https://www.vg.hu/penzugy/befektetes/nott-a-beruhazasi-kedv-482215/>

http://hvg.hu/SMB/20170126_A_latszat_csal_nem_megy_jol_az_epitoipar

[http://www.portfolio.hu/ingatlan/erik_a_botrany_az_epit_oiparban_a_25-](http://www.portfolio.hu/ingatlan/erik_a_botrany_az_epit_oiparban_a_25-os_dragulast_mar_nyelik_le.3.261777.html)

[os_dragulast_mar_nyelik_le.3.261777.html](http://www.portfolio.hu/ingatlan/erik_a_botrany_az_epit_oiparban_a_25-os_dragulast_mar_nyelik_le.3.261777.html)

http://hvg.hu/SMB/20161206_Elviselhetetlen_adminisztraciolt_kapnak_a_nyakukba_a_kis_cegek

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Péter Földi is PhD student at the Department of Business Sciences at Szent István University. His scientific research deals with corporate financing, corporate treasury and corporate valuation. He has 2 degrees. The first one was awarded in 2012 when he qualified with a Bachelor's Degree (BA) in Finance and Accounting, followed by the second one as a Master in Finances in 2015. Both were awarded at the Szent István University. In 2013 he earned a chartered accountant degree. foldi.peter89@gmail.com

Judit Tóth is a graduate student at Szent István University's Financial Master course. She earned her first degree also at the Szent István University as a BA in Tourism and Hospitality. tothjudit0506@gmail.com

Emese Melinda Bogáth is currently studying at her PhD degree course in Business and Organisation Sciences. She works for Allianz Hungária. emese.bogath@allianz.hu



ADMINISTRATIVE AND CRIMINAL LIABILITY IN THE CASE OF ILLEGAL EMPLOYMENT

Erika Statkienė, Vaidotas Granickas

Lithuania Business University of Applied Sciences

Annotation

In this article analyses the theoretical and practical aspects of administrative and criminal liability application in the cases of the illegal employment in Lithuania justice. The purpose of the article is to investigate specific features and attributes of the application of administrative and criminal liability and the peculiarities of liability application in the cases of the illegal employment. By using qualitative document analysis method is investigated legal doctrine, scientific literature and the newest judicial practice of the themes within. Article is written by using the summation, systematic analysis and linguistic methods, to ensure the qualified analysis of research and to provide eligible conclusions. By analyzing the Lithuanian law practice tendencies in the presented cases, it is being aimed to assess the essence of the applied responsibility and identify advantages and disadvantages of these legal regulation violations, as well as present possible proposals for their improvement.

KEY WORDS: administrative liability, criminal liability, illegal employment.

Introduction

Currently in Lithuania there is a rapid increase in the number of start-ups. As compared to 2011 year, the number of established small and medium-sized enterprises reaches 16000 (reviewed 2017-03-29), so it is natural that in Lithuanian justice a growth of illegal work and illegal infringement cases becomes more and more relevant. By selecting the administrative and criminal legal proceedings, it is aimed to analyze the problems of its demarcation point. The competing articles of the Code of Administrative Offences and the Criminal Code (hereinafter CAO and CC), in case of illegal work, which composition and characteristics are similar and which impart the relevant circumstances, that may lead to administrative or criminal liability. By analyzing the Lithuanian law practice, it is being aimed to assess the essence of the applied responsibility and identify advantages and disadvantages of these legal regulation violations.

The subject of the article: Administrative and criminal liability in the case of illegal employment.

The aim of the article: to investigate the application of criminal and administrative liability in illegal employment infringement cases.

The objectives of the article: to investigate specific features and attributes of the application of administrative and criminal liability and to analyze the key aspects of the criminal and administrative liability application in the illegal work infringement case.

During writing this article were used working methods: analysis of legal doctrine, an overviewing of scientific literature, analysis of regulatory legal acts, investigation of judicial practice.

The specific features and attributes of the application of administrative and criminal liability

The Supreme Court of Lithuania (hereinafter the SCL) has stated that "the application of administrative penalties is in line with the requirement of proportionality of the committed offense, when there is a right balance between the committed offense, prescribed penalty, the desired objective and means to achieve the goal. It is fair and reasonable to regard such a penalty, which application could lead to achievement of penalty goals and which, in assessing the nature, circumstances, the offender's personality, is not too strict" (SCL, Nr. 2AT-73-2014). It should be noted that criminal liability is applied as an extreme measure (*ultima ratio*) (SCL, Nr. 2K-262/2011). The purpose of criminal liability is to defend legitimate interests and protected values of the society in those cases, where less restrictive means are not effective. According to the court decisions, it can be said that the purpose of criminal law and general law principles established in Lithuanian legal democratic state jurisprudence, imply that formation of legal practice is not possible, when the norms of the criminal law are applicable to the offenses reglamented by other legal responsibility norms (administrative, civil). It should be noted that the Constitutional Court of the Republic of Lithuania (hereinafter CCRL), that investigated the compliance of some provisions of administrative offences code with the Constitution, stated, that the Constitutional principle *non bis in idem*, means that if a person for a counter-law action was brought to administrative, rather than criminal justice, and received a penalty for an administrative offense, one cannot be prosecuted in criminal terms (Baltusis, 2013). Based on this statement, it should be concluded, that delimitation of the

administrative and criminal liability issue is very important, because once the person is punished by applying administrative or criminal liability type, in case of a mistake, the re-prosecution for a particular liability or requalification for the same offense is not possible. In order to find out similarities and differences of the applied administrative and criminal liability in case of illegal employment, it is necessary to review the legal doctrine, explore the norms, governing the aspects of liability application. And then distinguish the features defining the administrative or criminal liability segregation, as well as state the main criteria describing that, legal liability form must be applied for law offense. A review of legal doctrine, based on the insights of the scientists (Petkevičius, Drakšas, Abramavicius, Andriuškevičius Petkevičius, Fedosiuk) present the following key administrative and criminal liability features, separating these proceedings:

- an administrative liability applies for guilty persons who have committed administrative offenses, in order to ensure the legitimacy as well as law and order, in its turn criminal - condemnation of a dangerous criminal offense and a perpetrator, even if not officially declared guilty, on behalf of the state;

- the constituent elements of the infringement of administrative responsibility: object of infringement (stored values), objective side (the act, a causal connection between the conduct and consequences of a crime, scene, method, tools, equipment), the subject (offender);

- subjective side (guilt, motive, aim); the constituent elements of the infringement of criminal responsibility: object of infringement (stored values), objective side (the act, a causal connection between the conduct and consequences of a crime, scene, method, tools, equipment), the subject (offender);

- subjective side (guilt, motive, aim). The analysis of administrative and criminal responsibility definitions leads to the conclusion that, administrative responsibility arises due to person's committed the administrative offense, guilt. Criminal responsibility is a criminal offense committed by a person whose guilt has to be proven, whereas according to the Constitution of the Republic of Lithuania, Article 31 (Legislative register 2014, Nr. 220-0), a person is considered innocent until proven guilty. Based on these considerations, it can be said that, a crucial difference of administrative and criminal liability is a feature, indicating that the administrative liability arises when the guilt, which should be argued by the prosecuted entity, is proven. However, a guilt of the prosecuted person being accused of criminal offense is argued during the trial, after a person is accused of committing a criminal offense and his guilt has to be proven. The comparative examination of the constituent elements of administrative and criminal liability infringement reveals the following noticeable signs of similarity of responsibilities. In order to state the fact that administrative law standards were violated and bring the offender to justice, it is necessary to objectively determine the existence of the infringement evidence and underlying features of the administrative offense, without their presence, in accordance with the provisions of law doctrine, administrative liability cannot be applied. The

determination of these signs as a whole, called the composition of criminal offenses, allows to determine whether a crime has been committed. Criminal liability offense features describe the essence of the crime, its nature, severity, separate one crime instance from the other. In the absence of these signs as a whole, criminal liability does not apply. It should be noted that the composition of the offense is not identified with the rule of law. According to Paulius Veršekis (2012, 82 tome), composition to be regarded as a description of criminal offense features, while the norm includes subject's prohibited behavior, responsibility and reasons for the behavior. Also, it should be noted that in the legal doctrine the causal link between the occurrence of consequences and the committed act is not ignored, therefore in order to bring the person to administrative or criminal prosecution it is necessary to determine the facts showing the cause-effect relationship. Obviously, there is clearly highlighted the necessity to ascertain the fact of a guilt. Vitalij Papijanc (2008, 95-102) in his scientific work has stated that there is no need to prove a guilt, if dishonest actions, which negate the presumption of bad faith, are proved. On the basis of this statement, it should be concluded that having proven an illegal, contrary to the law, implementation of the act, it is presumed that the subject who performed the act is guilty and the proof of guilt is not necessary.

After having analyzed articles on illegal work, provided in administrative and criminal legal proceedings, it can be noted that composition of the disposition norm and some of the features are similar. In the ANC Article 95 (LR, Nr. 11216) (the old version of this article was marked as Article 41³ (Nr. 1-1, consolidated version of 2015-05-01)), for illegal work employers are fined from one thousand to five thousand euros, after a repeated offense, a fine imposed on employers or other responsible individuals varies from five thousand to six thousand euros. CC 229 (LR, Nr. 89-2741) foresees liability only for the work of third-country nationals, illegally staying in the Republic of Lithuania: when the employer or his authorized individual for business purposes employed third-country nationals, illegally staying in the Republic of Lithuania; or employed five or more third-country nationals illegally staying in the Republic of Lithuania; or employed third-country citizen illegally staying in the Republic of Lithuania, particularly for exploitative working conditions; or illegally employed third-country juvenile national illegally staying in the Republic of Lithuania. It should be noted that the analyzed articles indicate that the employer or his authorized individual is responsible for the violation of legal norms, in regards to criminal liability, as opposed to administrative, there appears one more subject, a legal person. It is important for the interpretation of the ANC provisions on employer's liability, as administrative responsibility for violation of an employer's obligation will be held not by the employer-legal entity, but by a head of the legal entity or one's authorized individual responsible for the implementation of duties assigned by the employer. The very structure of blanket-type article, when the legislature describes only the generic features of the offense, and in order to examine it in detail it is necessary to look at the

other regulatory provisions, is quite uninformative and does not distinguish administrative and criminal liability segregation framework. The Constitution of the Republic of Lithuania (LR. 2015, Nr. 220-0, 48 Art. 1) proclaims that every person has the right to adequate, safe and working conditions. Illegal work is contrary to the imperative provisions of the law as well as violates the Constitutional human rights, since illegal work is contrary to the proper job description. Due to growth of illegal employment in Lithuania, distorted labor market, emergence of conditions for unfair competition, this offense is considered to be one of the most dangerous in the context of administrative justice. Criminal liability is foreseen for third-country national workers illegally staying Lithuania. The Criminal code of the Republic of Lithuania does not foresee responsibility for illegally working citizens. Through analyzing the features at the disposition of the above mentioned articles, arises a question - why are contrasted exactly these articles of possibly arisen administrative and criminal liabilities, and they both define a rise of responsibility for illegal work? It should be stated that criminal liability, specified for the employment of third-country nationals illegally staying in the country, falls into description of further examined concept of illegal work, which is concretized by the Labor Code of the Republic of Lithuania (hereinafter LC), Article 98 (V. Ž. 2002, Nr. 64-2569). According the set of features at the disposition of the Criminal Code Article Nr. 292¹, when third-country nationals illegally staying in Lithuania, who perform job functions and are employed without taking into account an illegal staying in the country's territory, presuppose the existence of illegal work circumstances, as the work is performed by violating Lithuanian laws, prohibiting such activities, particularly because of these features, it can be claimed that statement of circumstances mentioned in the Criminal Code Article Nr. 292¹ confirms the existence of illegal employment relationship, equivalent to the relationship defined in the analyzed CAO Article Nr. 95. It should be noted that at the disposition of both administrative and criminal liability articles, there is no definition of illegal employment, these articles are blanket-type, because illegal work, as the composition of the offense and the interpretation of this concept should be examined in the LC Art.98, Art. 98, Art. 99 (v. ž. 2002, Nr.71-0). In order to find the features, indicating the infringement of Articles, it is necessary to review the LC on the topic of description of the illegal work activity provided in Article Nr.98 and Article Nr.98. According to the aforementioned law norms, illegal employment is considered to be an employment that meets at least one of the following: an employee performs work functions (i.e. for a reward) for the benefit of the employer or under his leadership; absence of a written contract of employment; the State Social Insurance Fund Board institution (hereinafter - SSIFB) is not notified about individual's start of work ; work is done by foreign nationals or stateless individuals, employed avoiding the regulatory procedure that is set out for employment; work is done by third-country nationals employed prior to arrangement of the contract of employment without asking for a valid document granting the right to residence or domicile in the Republic of Lithuania (LC Art. Nr. 98¹). Through

analyzing the provided characteristics, in order to state an administrative offense, it is necessary to set the absence of employment contract; employee's implementation of work functions on behalf of the company or implementation of the leader's commands; failure to notify the SSIFB about employment; in order to state the instance of criminal offense, it is necessary to determine the absence of residence permit or a permit to be in the country's territory. In studying the concept "authorized individual", based on the LC Article Nr. 24, a head of the company, who committed an offense by inaction, loss of control in legitimate labor relations and non-compliance with the norms of the law, is held liable for illegal employment. It should be noted that, according to the CAO Article Nr.95 and CC Article Nr.292¹, the sanction applies only to the employer or his designee, there is no liability foreseen for an illegal worker. In analyzing each case, according to the law and the company's documents, it is necessary to identify each individual's job remit, in written and spoken forms in a set out organization nature of the company. In analyzing the subjective indication - form of guilt- of administrative and criminal liability applied to an individual in terms of illegal employment, it should be concluded that in both administrative and criminal law violation cases, the guilt must be considered as done intentionally or negligently. Intentional form of guilt can be imposed on the head of the company in case it is proved that the subject intentionally, in order to avoid payment of taxes to the state budget or conceal illegal employment of third-country nationals, did not inform the "Sodra", did not request the documents proving the worker's legal stay in Lithuania. Negligent form of guilt is imposed, when the head of the company failed to control the subordinate, when subordinate employees hired workers by violating of legal attributes specified in the labor law. This provision has been stated by the Supreme Administrative Court of Lithuania, in the synthesis of cases of Administrative Law Violations on illegal employment (LRVAT bulletin, reviewed 2015-05-16). Which explains that in case of a complex corporate structure, where it is not clear which person has to be brought to administrative responsibility, without having determined which employer's representative made an agreement with the employee, it is advisable to follow the general rule, which foresees that, - when the laws, company's internal documents do not indicate the specific duties of the person responsible for an employment contract, the head of the company should be considered as an employer's authorized person. After having analyzed the compared administrative and criminal articles, which infringement for illegal employment can lead to administrative or criminal liability, it should be noted that the object is different. Because in case of administrative misconduct, it is being encroached upon the employee's constitutional rights, upon fair and safe working conditions, when the employee is not provided with job guaranties, they are not insured and free compulsory social charges, which give him the required social guaranties, are not paid. In case of violation of criminal law, it is being encroached upon public order, when illegally staying third-country nationals occupy the labor market, without having the right to be legitimate participants of this market. In such a way they undermine

the established national procedure that protects the stored values and society's legitimate interests. According to the interpretation of Lithuanian Constitutional Court (LCC), the punishment for law violations should be established in advance (*nulla poena sine lege*), it is emphasized that the act not foreseen in the law is not considered as being a criminal (*nullum crimen*) (LCC Nr. CC 11-N4 / 2014). After a review of administrative and criminal sanctions assigned for illegal work, it should be pointed out that, the administrative order foresees only a fine, which size is defined specifically, while criminal liability does not foresee a specific amount of the fine, the question of the fine amount is left for the court, which imposes a penalty, according to the dangerousness of offense and the degree of its circumstances severity. For the illegal work signs offense a head of the company, when features of the Criminal Code are established, can be assigned to arrest or imprisonment for up to two years, severity of the sanction presupposes the view that offenses against public order are sufficiently dangerous. State's legal mechanism clearly points out that it is necessary to obey the governmental order and its imperative norms, thus behavior contrary to the law is intolerable, providing appropriate legal consequences for a failure to comply with the community's law norms. It should be noted that throughout the analysis of the sources of legal doctrine, there is a positioned opinion that the purpose of punishment for the subject's committed guilty offense, highlights the purpose and essence of state's power realization (Vaišvila, 2000, 388; Svedas, 2003, 69).

By summarizing the articles, which infringement in regards to illegal work may lead to administrative or criminal liability, analyzed using comparative-logical method, it becomes clear that the fundamental differences that eliminate arise limits of these liabilities is the determination of different features. Having examined the composition of an offense, the administrative liability arises, having determined the existence of at least one of the illegal employment characteristics (absence of employment contract, failure to inform „Sodra“, pecuniary), while criminal responsibility applies to the situation of discovery of illegally staying third-country nationals, when the work is performed by third-country nationals, who do not have a legitimate permit to live or stay in Lithuania. Based on the analyzed LC, the stated features are consistent with the concept of illegal work, the composition of these features distinctly defines the difference of application of administrative and criminal liability for the illegal work to the company's managers. The legislator quite accurately stated the distinguishing features of the administrative and criminal liability in regards to illegal labor. Examination of the composition of the analyzed articles, pointed out that the subjects of administrative and criminal liability for illegal work are identical, a head of the company can be punished by both administrative and criminal prosecution for illegal labor law violations. The mentioned liabilities possess different objects, in case of administrative offense it is being encroached upon the constitutional rights as well as appropriate working conditions, in case of a criminal liability it is being encroached upon state governance regime which protects the stored goods and public interests. Having assessed the importance of objects on a

values level, respectively there is formed a different sanctioning system, when the strictness of the applied penalties defines the severity level of possible consequences of the infringement and a degree of dangerousness.

Application features of administrative and criminal liability of illegal employment in practice of Lithuania's courts

In analyzing the peculiarities of application of administrative and criminal liability from the selected competing articles, on the basis of Lithuanian statistical indicators, for illegal labor violations in 2015, were carried out over 3000 illegal employment inspections and established almost 1500 illegal workers (reviewed 2015-05-12). According to the data provided by the State Labor Inspectorate of the Republic of Lithuania, in 2016 the State Labor Inspectorate (reviewed 2017-03-29) carried out 7 012 illegal labor inspections, which resulted in a check up of 6,749 subjects (including checked companies - 5 115, farms- 188 and 1,446 - individuals) and identified 1129 illegally working individuals. CAO 778 protocols were drawn up to 991 individuals, according to CAO 41³ (currently AO Art. 95) article, foreseeing offenses in the field of illegal work. In 2016 year the number of illegally employed individuals, as compared to 2015, increased in the wholesale and retail trade from 5.18 per cent to 9.30 per cent, in accommodation and food service sphere from 5.18 per cent to 6.38 per cent, a number of illegally employed individuals in economics sector related to service activities increased by 2.54 per cent (reviewed 2017-03-29). According to statistical data, it can be stated that illegal work is an act, which negative consequences are a failure to pay taxes to the state budget and obligations arising from a failure to implement legal contract relationships with employees and the state, as a consequence it violates legitimate interests of employees, the state and society as a whole (Klaipeda District Court Nr. A2.1.-14-736/2015). A motive of the committed offense for a company's head is clearly visible, as the person carrying out an offense, is seeking personal financial gain, because taxes payable to the state budget, contributions to social insurance funds account make up a large amount, if compared to the wage paid for an employee. From the composition of the committed offense, it can be stated that in case of such a violation, the head of a company is to be found guilty, only after the form of guilt is determined- intentionally or negligently, one may be held administratively liable. Lithuanian Supreme Administrative Court has repeatedly stated that a guilt must be based on evidence that contains actual data, which determines the fact of commitment of administrative offense (Klaipeda City District Court Nr. A2.8.-36-358/ 2015). In court practice, in order to qualify an act as illegal employment, it is necessary to determine objective and subjective features of illegal employment as an administrative offense.

The most important objective feature is the actual start of paid work, when officially there is no signed contract and it is unreported to SSIFB department in accordance with the established procedure (KCDC No. 4-06-3-02945-2014-0). A subjective feature required for illegal labor, administrative law violation composition is determination of the special subject being brought to justice - employer or an authorized individual (Vilnius City District Court No. A2.1.-14624-716/2014). In law practice it is stated (VCDC No. A2.1-13712-960/2014) that in each case it is necessary to identify each individual's job remit, in written and spoken forms in a set out organization nature of the company. It is stated that one of the objective features of undeclared work infringement is a report to SSIFB (VCDC No. A2.1.-9318-961/2014), there are cases when the court considers a failure to inform the institution as violation of CAO Article 41 Part 1 (currently ANT 96 Art. 3 d.). The case examined by Vilnius Regional Court, considers a situation when the court of first instance, for the presence of all the employment contract features with the absence of a written contract of employment and failure to inform the territorial SSIFB department about the employment agreement, in accordance with the established procedure, reclassified actions from the Republic of Lithuania CAO Art 41³ part1 (illegal work) to the CAO Article 41 part 1 (a violation of labor laws) and imposed a fine (VAC Nr. 1122-487/2013). In this situation emerge disadvantages of ANC blanket-type Articles, when arises a collision of application of material norms, because of diverted, violation composition foreseeing, coincidence of features of legal norms. From the circumstances specified in the case, it was stated that due to the fact that the contract was signed, though VSFDV department was not properly notified about it, there is a basis for exemption from liability for illegal labor violation, because there is one of the main illegal work features, absence of written contract with the employee, when employer and worker share a paid employment relationship. From the analyzed circumstances it can be concluded that two features of illegal employment (actual work performance and failure to report to VSFDV) are not enough for determination of illegal work and administrative liability does not arise having established existence of a signed contract of employment. It should be emphasized that in the theoretical part it is stated that administrative responsibility should arise in a presence of at least one of the constituent elements of illegal employment, this provision is clearly reglamented in the disposition of the DK Article Nr. 98. The analysis of the aforementioned administrative case, it should be stated that the Lithuanian courts do not always rely on the rule of law in classifying the offense and deviate from the norms of laws. It is likely that this happens due to blanket-type law norms, when it is not properly got deep into the content of the legislation. The examined situation proves that the administrative responsibility for the illegal work could be regulated in a more appropriate way. In considering the question of emergence of responsibility, the actual possession of an employment contract may not be a sufficient basis for exemption from liability, a deeper look should be given into the circumstances, determining the features that evidence the fact that workers actually work and it is reported about their employment in accordance with the established procedure. After an appeal of a decision of the analyzed case, the Vilnius Regional Court, after considering all the circumstances of the case, once again reclassified the Article and applied CAO Art 41 part 1 (CAO Art. 95 illegal work) and imposed administrative penalty on the head of the company (VAC Nr. 1122-487/2013). In view of the reviewed cases, it can be claimed that the rule of law indicated in the ANC is not clearly regulated. A clarification of offense commitment features at the disposition of the article would help to avoid confusion in characterizing the acts, thereby saving time and money costs of courts and public citizens. In examining remuneration characteristic, it should be noted that in practice of Lithuanian courts, even the absence of the fact of compensation for completed work, having proved the circumstances determining a failure to comply with the rules established in the employment contract, a failure to inform „Sodra“ about employment, when a person is working in the employer's favor, does not invalidate the probability of administrative responsibility for illegal work (VAC Nr. 4-68-3-14234-2014-2). The company's manager's duty, before committing an offense, is to think about possible consequences and thus emerging inconvenience. However, through a review of Lithuanian court practice, it can be concluded that the amount of penalties (usually fines are 868.00 Euros (Nr. A2.1.-34-445 / 2015; Nr. A2.2.1-49-308 / 2015; Nr. A2.1.-9318-961 / 2014; Nr. 4-03-3-11945-2015-8)) is not sufficient to deter law subjects from offenses in the future, and this is confirmed by data provided by the State Labor Inspectorate of Lithuania, which states that in 2014 there were 1429 individuals illegally employed in the country (reviewed 2015-04-19). From the provided statistics, it can be claimed that the imposition of administrative liability on the company's managers is not sufficiently effective measure to reduce the number of such violations in Lithuania. Considering the dangerousness of the act, it would also be inappropriate, unfair and disproportionate to increase fines. Also it would be contrary to the laws of the Republic of Lithuania, as the Constitutional Court of the Republic of Lithuania has stated that, the constitutional principles of justice and the rule of law imply that, the offenses established by the state must be proportionate to the offense, be in conformity with legitimate and universally important objectives and should not restrict the individual more than it is necessary, to achieve these objectives (CCRL resolution of 2012, 25 September). In a view of the interpretation of the Constitutional Court, it can be stated that in a presence of increased degree of dangerousness, when it is aimed to protect public interests and to achieve the legitimate objectives, sanctions can be proportionate to the size of an offense subject. In case of illegal employment, the degree of danger is high, when a large number of people is employed, which violates the legitimate state's and workers' interests and rights. Criminal liability can be

applied for offenses of increased dangerousness, because it is the most effective measure for encouraging offenders to abstain from committing an offense in the future. In the Republic of Lithuania criminal liability is not foreseen for illegal citizens' work. As it has already been analyzed in the theoretical part, criminal liability is foreseen in the Criminal Code Article Nr. 292¹, for individuals illegally staying in the country, or five and more third-country nationals, or one illegally staying third-country citizen used in particularly exploitative working conditions, or illegally staying third-country juvenile national, all employed for business purposes. From the article's disposition it can be seen that criminal liability does not arise because of illegally employed Lithuanian citizen. After reviewing the practice of Lithuanian courts on criminal liability under the Criminal Code Article 229¹, which would result into punishment of a head of the company for illegal work, when are employed third-country nationals without a permission to stay or to live in Lithuania, there is a noticed tendency that the features foreseen at the disposition of this article, when third country national illegally staying in the country is employed in the company, there is applied administrative liability according to CAO Art 41³ part 1 (CAO Art. 95). There is no practice in Lithuania to punish a head of the company according to the Criminal Code Article 229¹, as the number of such employees is not big enough, so in the disposition of the mentioned Article there is a lack of proof of the feature, which covers the degree of dangerousness. The analysis of cases, where the establishment of the act of illegally staying third-country nationals is regarded in accordance with the CAO Art 41³ part 1, by determining the infringement of LC 98 Art 3, which foresees responsibility for employment of foreign nationals, without complying with the regulatory legislation procedures established for recruitment, just confirms ineffectiveness of the Article in Criminal Code regarding illegal employment. The examination of the decision of Lithuania Vilnius City District Court on the case of Chinese national employment, working without a permit to carry out work functions in the Republic of Lithuania, again confirmed the application of the administrative liability under CAO Art 41³ part 1 (VAC Nr. A2.1.-11782-865/ 2014). Considering the qualifying factors of the act, specified at the disposition of the Article 229¹ of the Criminal and the fact that Chinese national is a third country citizen, who was not provided with a permit to work in Lithuania, with a larger number of such workers, business managers should face criminal liability. In some cases administrative liability is imposed for illegal third-country nationals without a permission to work in the enterprise. In the present case, when an employed Belarusian national who did not possess a permit to work in the company, there was imposed an administrative responsibility, although the constituent feature of the offense (a third-country national working without a work permit) could impose upon the company's manager a criminal liability (Klaipeda City Administrative Court Nr. A2.1.-2856-718/2014). In this case, having determined additional features, such as the

number of such individuals or exploitative Belarusian citizen's working conditions, could lead to criminal liability. After the analysis of Vilnius and Klaipeda district court proceedings, it should be concluded that in court practice there are cases when offenders for illegal work, in all cases, are brought to administrative justice. As a result an Article, foreseeing criminal liability, loses its purpose and in a legal sense becomes irrelevant, because possibilities of its application are very limited and only in case of determination of the features (illegal work of third-country national- without a permit to live or work in Lithuania, without having determined the number of individuals, or exploitative working conditions or nonage) foreseen for emergence of such a liability, Lithuanian courts may impose criminal liability. After the examined circumstances, it can be stated that in case of illegal employment, law norms foreseeing administrative or criminal responsibility are not sufficiently effective, because the number of these offenses is increasing, while practically it is difficult to impose criminal liability, as it is relatively difficult to prove the features, specified at the disposition of the Article.

By summarizing the analyzed Lithuanian judicial practice cases on illegal employment, it can be stated that illegal labor violations damage workers' rights in terms of legal and social guarantees, distort competition between companies in the labor market, violate state's and society's legal interests. Thus mentioned Articles, that foresee responsibility for illegal work, are a subject to improvement. Penalties imposed by the court are ineffective because the benefit of infringement is greater than the sanctions indicated at the disposition of the ANC Art 95 part 1. After reviewing the court practice and essential aspects of the application of administrative responsibility as well as their purpose, there should be drawn a conclusion that one of the possible solutions, aiming at reduction of illegal employment cases in Lithuania, would be a tougher stance on company managers' liability in regards to illegal employment. In order to strengthen the prevention of undeclared work, to increase the transparency of labor markets and return a part of shadow economy revenues to the state budget, it can be proposed to adjust the CC Article 292¹, by adding an additional part, where at the disposition would be indicated that - an employer or his authorized individual, at a time for business purposes illegally employing five or more individuals, may be punished by a fine, arrest or imprisonment for up to two years. A responsibility for this offense should also apply for a legal entity as well. It should be emphasized that, the offense must be clearly defined in the law. The European Court of Human Rights advocates that, penal legality principle states that offense must be clearly defined in the law. So that a person after looking at the regulated provision and through its interpretation in the court practice, could understand what offense does criminal liability arise from, and based on this formed opportunity, accordingly regulate one's behavior and refrain from certain actions (ECHR no. 59552/08). Illegal employment of five or more individuals specified at the disposition, corresponds to an

activity character of increased danger, because illegal employment of more people creates more harm to the state's and public interests. An entrepreneurship feature, based on the interpretation of the LAC, it is a concept that covers „not only activity's stability and permanent nature, but also other features, separating it from a pursuit of commercial or other activity concepts. Such features – is execution of preparatory activities for illegal commercial or other activities, management of these activities and other actions showing a higher activities' degree of dangerousness“ (LAC Nr. 2K-574/2011). From the provided interpretation, it could be stated that in the Criminal Code Article 292¹, which can be a subject of supplement, foreseen violation features of the activity are clear enough to define the behavior, which may result in criminal liability. An entrepreneurship concept should be interpreted as a feature of infringement continuity, constant repetition, when the offense brings income. Having imposed criminal liability on the company's executive, who for business purposes illegally employed five or more individuals, would discourage managers to employ illegal workers. It is likely that the risk of criminal liability by obtaining a fact of conviction is one of the factors restraining law subjects from commitment of offenses. Given the fact that the dangerousness of the act reveals itself through the damage to national economy and business, the restriction of responsibility for extreme extent of illegal work and its repetition, aims at reducing the spread of this phenomenon and tends to discourage employers and business leaders to employ people illegally. It should be emphasized that despite of a possible increase in the general criminogenic situation, due to widespread range of activity, it is likely that improvement of the law would positively influence business development and fair competition.

Conclusions

The fundamental differences that eliminate arise limits of administrative and criminal liabilities is the determination of different features. Legal defines that, the administrative liability arises, having determined the existence of at least one of the illegal employment characteristics, while criminal responsibility applies to the situation of discovery of illegally staying third-country nationals, when the work is performed by third-country nationals. Examination of the composition of the analyzed articles pointed out that, the subjects of administrative and criminal liability for illegal work are identical, a head of the company can be punished by both administrative and criminal prosecution for illegal labor law violations. The mentioned liabilities possess different objects, in case of administrative offense it is being encroached upon the constitutional rights as well as appropriate working conditions, in case of a criminal liability, it is being encroached upon state governance regime, which protects the stored goods and public interests. Having assessed the importance of objects on a values level, respectively there is formed a different sanctioning system, when the strictness of the applied penalties defines the severity level of possible

consequences of the infringement and a degree of dangerousness.

Analysis of judicial practice showed that from the circumstances specified in the case, due to the fact that two features of illegal employment are not enough for determination of illegal work. However in the theoretical part, it is stated that administrative responsibility should arise in a presence of at least one of the constituent elements of illegal employment (this provision is reglamented in the disposition of the DK Article Nr. 98). So it should be stated, that the Lithuanian courts do not always rely on the rule of law in classifying the offense and deviate from the norms of laws. It is likely that this happens due to blanket-type law norms, when it is not properly got deep into the content of the legislation. It is noted, that Courts, after considering all the circumstances of the case, once again reclassified the Article and applied CAO Art. 95, illegal work and imposed administrative penalty on the head of the company, instead of applying penalty on the violation of labor law or accounting irregularities. So the rule of law indicated in the ANC, is not clearly regulated. A clarification of offense commitment features at the disposition of the article would help to avoid confusion in characterizing the acts, thereby saving time and money costs of courts and public citizens.

It should be concluded that in court practice there are cases when offenders for illegal work, in all cases, are brought to administrative justice. As a result, an Article foreseeing criminal liability, loses its purpose and in a legal sense becomes irrelevant, because possibilities of its application are very limited and only in case of determination of the features (five or more illegal work of third-country nationals) foreseen for emergence of such a liability, Lithuanian courts may impose criminal liability.

After the examined circumstances, it can be stated that in case of illegal employment, law norms foreseeing administrative or criminal responsibility are not sufficiently effective, because the number of these offenses is increasing, while practically it is difficult to impose criminal liability, as it is relatively difficult to prove the features, specified at the disposition of the Article. The penalties imposed by the court are ineffective, because the benefit of infringement is greater than the sanctions indicated at the disposition. One of the possible solutions, aiming at reduction of illegal employment cases in Lithuania, would be a tougher stance on company managers' liability, in regards to illegal employment. It is likely that improvement of the law would positively influence business development, manage the increasing in the general criminogenic situation and will lead to a fair competition.

References

- Baltūsis, I., Baltūšienė J., and Other (2013). *Konstitucionalizmas ir teisės politika Europos sąjungoje*, p. 129. Mykolo Romerio universitetas, Vilnius.
- Fedosiuk, O. (2012). Baudžiamoji atsakomybė kaip kraštutinė priemonė (ultima ratio): teorija ir realybė, *Jurisprudencija*, 19(2), p. 715-738.
- Paužaitė-Kulvinskienė, J. (2005). *Administracinė justicija teorija ir praktika*, p.141. Justicija, Vilnius.

- Švedas, G. (2003). *Laisvės atėmimo bausmė: baudžiamosios politikos, baudžiamieji teisiniai ir vykdymo aspektai*, p. 63. Teisinės informacijos centras, Vilnius.
- Švedas, G. (2012). Veikos kriminalizavimo kriterijai: teorija ir praktika. *Teisė*, 82 Tomas.
- Vaišvila, A. (2000). *Teisinės valstybės koncepcija Lietuvoje*, p. 388. BĮ Litimo, Vilnius.
- Lietuvos Respublikos Konstitucija // Valstybės žinios, 1992, Nr. 33-1014, 29 straipsnis, 31 straipsnis, 32 straipsnis, 48 straipsnis 1 dalis.
- Lietuvos Respublikos darbo kodekso patvirtinimo, įsigaliojimo ir įgyvendinimo įstatymas // Valstybės žinios, 2002, Nr. 64-2569, Nr.71-0, 98 straipsnis. 98(1) straipsnis, 99 straipsnis.
- Lietuvos Respublikos administracinių nusižengimų kodekso patvirtinimo, įsigaliojimo ir įgyvendinimo įstatymas // TAR. Nr. 11216. (aktuali redakcija 2017-01-01).
- Lietuvos Respublikos baudžiamojo kodekso patvirtinimo ir įsigaliojimo įstatymas // TAR. Nr. 89-2741. (aktuali redakcija 2017-01-01).
- Lietuvos Respublikos Konstitucinio Teismo 2012 m. rugsėjo 25 d. nutarimas „Dėl Lietuvos Respublikos administracinių teisės pažeidimų kodekso 301 straipsnio 2 dalies atitikties Lietuvos Respublikos Konstitucijai.
- European Court of Human Rights. Judgment of 18 April 2013 Case of Rohlena v. the Czech Republic, no. 59552/08.
- Lietuvos Konstitucinio Teismo 2014 m. kovo 18 d. nutarimas Nr. KT11-N4/2014.
- Lietuvos Aukščiausiojo Teismo 2014 m. gruodžio 16 d. nutartis administracinių teisės pažeidimų byloje Nr. 2AT-73-2014.
- Lietuvos Aukščiausiojo Teismo 2011 m. lapkričio 29 d. nutartis baudžiamojoje byloje Nr. 2K-574/2011.
- Lietuvos Aukščiausiojo Teismo 2011 m. gegužės 24 d. nutartis baudžiamojoje byloje Nr. 2K-262/2011.
- Vilniaus apygardos teismo 2015 m. vasario 12 d. nutartis administracinio teisės pažeidimo byloje Nr. 4-68-3-14234-2014-2.
- Kėdainių rajono apylinkės teismo 2015 m. sausio 13 d. nutartis administracinio teisės pažeidimo byloje Nr. A2.1.-14-736/2015.
- Kauno apylinkės teismo 2015 m. vasario 10 d. nutartis administracinio teisės pažeidimo byloje Nr. A2.8.-36-358/2015.
- Vilniaus apygardos teismo 2015 m. vasario 12 d. nutartis administracinio teisės pažeidimo byloje Nr. 4-68-3-14234-2014-2.
- Vilniaus miesto apylinkės teismo. Administracinės teisės pažeidimo bylos 2014 spalio 3 d. nutartis Nr. A2.1.-9318-961/2014.
- Vilniaus miesto apylinkės teismo. Administracinės teisės pažeidimo bylos 2015 m. vasario 15 d. bylos nutartis Nr. 4-03-3-11945-2015-8.
- Vilniaus miesto apylinkės teismo 2014 m. spalio 6 d. nutarimas administracinio teisės pažeidimo byloje Nr. A2.1.-11782-865/2014.
- Klaipėdos miesto apylinkės teismo 2014 m. liepos 23 d. nutarimas administracinio teisės pažeidimo byloje Nr. A2.1.-2856-718/2014.
- Klaipėdos miesto apylinkės teismo 2014 m. gruodžio 23 d. nutartis administracinio teisės pažeidimo byloje Nr. 4-06-3-02945-2014-0.
- Vilniaus miesto apylinkės teismo 2014 m. gruodžio 10 d. nutartis administracinio teisės pažeidimo byloje Nr. A2.1.-14624-716/2014.
- Vilniaus miesto apylinkės teismo 2014 m. lapkričio 11 d. nutartis administracinio teisės pažeidimo byloje Nr. A2.1.-13712-960/2014.
- Vilniaus miesto apylinkės teismo 2014 m. spalio 3 d. nutarimas administracinio teisės pažeidimo byloje Nr. A2.1.-9318-961/2014.
- Vilniaus apylinkės teismo 2013 m. rugsėjo 12 d. nutartis administracinio teisės pažeidimo byloje Nr. 1122-487/2013.
- Lietuvos Aukščiausiojo Teismo 2011 m. spalio 4 d. nutartis baudžiamojoje byloje Nr. 2K-409/2011.
- Vilniaus apygardos teismo 2013 spalio 31 d. nutarimas administracinio teisės pažeidimo Nr. 1158-487/2013.
- Vilniaus apygardos teismo 2015 m. vasario 12 d. nutartis administracinio teisės pažeidimo byloje Nr. 4-68-3-14234-2014-2.
- Lietuvos Respublikos Vyriausiasis Administracinis teismas. LVAT biuletenis Nr. 2. Prieiga per internetą: <<http://www.lvat.lt/lt/teismu-praktika/teismu-praktikos-apibendrinimai.html>>, [revised: 2015 05 16].
- Lietuvos statistikos departamentas. Prieiga per internetą: <<http://osp.stat.gov.lt/infographic3>>, [revised 2017 03 28].
- Valstybinė darbo inspekcija. Prieiga per internetą: <http://www.vdi.lt/PdfUploads/ND2014ataskaita.pdf>>, [revised 2015 05 12].
- Valstybinė darbo inspekcija. <<http://www.vdi.lt/PdfUploads/ND2014ataskaita.pdf>>, [revised 2015 04 19].
- Valstybinė darbo inspekcija. Prieiga per internetą: <http://www.vdi.lt/Forms/Tema.aspx?Tema_ID=57>, [revised 2017 03 29].

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Erika Statkiene, associate professor, Lithuania Business University of Applied Sciences, lecturer. Field of scientific research: law. Scientific publications: article “Administrative and criminal liability in case of illegal employment”. Address: I. Kanto 19-30, Klaipėda, Lietuva. Phone: +37067142462. E-mail: statkiene.paskaitos@gmail.com. Other information about the author.

Vaidotas Granickas, doctoral degree, Kazimieras Simonavičius University, lecturer. Field of scientific research: law. Scientific publications: the thesis “Teisingo apmokėjimo už darbą problema, teoriniai ir praktiniai aspektai”. Address: I. Kanto 5, Klaipėda, Lietuva. Phone: +37065794154. E-mail: vaidotas.granickas@gmail.com. Other information about the author.



THE COMPARISON OF THE LEGAL ENVIRONMENT OF BUSINESS IN LATVIA AND LITHUANIA

Renata Šliažienė, Janis Grasis

Lithuania Business University of Applied Sciences

Annotation

Republic of Latvia and Republic of Lithuania are important trade partners within European Union. The authors have tried to do some comparison of the legal environment of the business in the Republic of Latvia and the Republic of Lithuania. Issues of the registration of the companies, comparison of the taxation, insolvency issues as well court proceedings are covered in this article. As there are not some specific academic researches on this issue, the authors overlook normative acts of the two countries. If we compare company laws of two countries, it looks that there are not big differences concerning company registration. Both Latvia and Lithuania implements newest EU directives in the national legislation. From the research we could come to the finding that taxation of labour force is more favourable in Lithuania; it means that companies in Lithuania performs business activities in better conditions. Standard corporate income tax is 15% in Latvia, but starting from January 1st 2018, Latvia will introduce 0% rate for reinvested profit; in case profit will be distributed as dividends, the personal income tax will be 20%. Lithuania has one of the smallest corporate income tax in EU for small companies – only 5%, if turnover is not more than 300 000 Euros and it has less than 10 employees. This good practise could be overtaken by Latvia. Legal protection proceedings were introduced in the latest law of the Republic of Latvia on insolvency. Probably the Republic of Lithuania has to introduce legal protection proceedings in the national law on insolvency. One or several methods shall be applied in legal protection proceedings:

- 1) the postponement of the honouring of payment obligations;
- 2) the alienation of movable property or immovable property or encumbrance with rights in rem in order to achieve the extension of the time period for meeting the creditors' claims, or satisfying of the creditors' claims;
- 3) the increase of the basic capital of a debtor – capital company (including the investing of the right of the creditor to claim against the debtor in the equity capital);
- 4) reorganisation of a debtor – commercial company;
- 5) other methods which comply with the objective of legal protection proceedings.

National court systems are very similar in both countries. National court practise show that most cases cannot be resolved in a single court hearing. Court hearings of a case in a court of first instance may take several months, starting from the date of the registration of the application by the court. Waiting for a final judgment on the average may last up to a few years. Therefor in order to reduce the lengthy proceedings of a legal dispute in the state courts, parties to a commercial agreement may agree to resolve disputes arising from such agreement in a so-called court of arbitration.

KEY WORDS: registration of the companies, labour taxation, insolvency of the companies.

Introduction

Republic of Latvia and Republic of Lithuania are two neighboring Memberstates of the European Union (EU). Latvia's main export products are: wood and wood products, machinery and equipment, iron and steel, textiles and foodstuffs. Latvia's main export partners are Lithuania, Russia, Estonia, Germany and Sweden. Latvia imports machinery and equipment, chemicals, fuels and vehicles. Main import partners are Lithuania, Germany, Russia, Poland and Estonia. So, it means that Lithuania is the main trade partner for Latvia both for export and import within EU.

According to provisional data of the Central Statistical Bureau of Latvia, in July of 2017, the main export partners in trade with EU countries were Lithuania (17.7 % of total export), Estonia (11.6 %), Germany (8.7 %) and Sweden (5.6 %), whereas the main import partners were Lithuania (18.4 % of total imports), Germany (11.9 %), Poland (11.4 %) and Estonia (8.0 %). Russia was the main partner in trade with third countries; its share in total Latvian exports in September of 2017

accounted for 7.8 %, whereas in imports – for 6.6 %. (Balance of trade of Latvia 2017)

The goal of this article is to compare in general the legal environment of the business in the Republic of Latvia and the Republic of Lithuania, concerning establishment of the companies, taxation aspects of direct tax, insolvency issues of the companies etc. The analyses of the legislative acts as prime sources are done in order to understand business environment in both countries. Unfortunately there is not a serious academic research on this topic; of course we could find some comparison by professionals in some Internet webpages, for example: www.baltic-legal.com. Taking into account import and export amounts between Latvia and Lithuania, no doubts that this article is a very relevant from practical and academical point of view. Of course, it is not so easy to compare legal regulation in two countries, as laws are still different and don't corresponds 1:1 in both countries. Before we start to investigate business conditions, we will start with general comparison

Table 1. General statistics about two countries

No	Type of comparison	Latvia	Lithuania
1.	Number of population (2017)	1 953 163	2 849 715
2.	Main aging groups (2015)	0-14 -15% 15-64 – 65,6% Older than 65 – 19,4%	0-14 -14,6% 15-64-66,6% Older than 65 – 18,7%
3.	Unemployed persons (2017)	9,6	7,9
4.	Total area of country	64,559 km ²	65 300 km ²
5.	Density of population (persons per km ²)	30,3	43,6

Source: (Eurostat 2015, 2017)

If we look to the general statistics about two countries, commercial companies operate in a very similar conditions: aging structure of the people are almost the same; unemployment rate is a little bit less in Lithuania, but Lithuania has a little bit more density of population.

Registration process of the companies

The Commercial law of the Republic of Latvia regulates establishment of the companies and commercial activities within Latvia (Commercial law 2000).

The firm name of a limited liability company shall contain a reference “sabiedrība ar ierobežotu atbildību” [limited liability company] or its abbreviation “SIA”. The firm name of a stock company shall contain a reference “akciju sabiedrība” [stock company] or its abbreviation “AS”. The references to the type of merchant shall be placed at the beginning or end of the firm name. (Article 27 of the Commercial law 2000).

The Memorandum of Association and the Articles of Association are the main documents of incorporation of a company in Latvia.

In the Memorandum of Association shall be indicated:

1) information regarding the founders:

a) for natural persons – given name, surname, personal identity number (if the person does not have a personal identity number – the date of birth, the number and date of issue of a personal identification document, the state and authority, which issued the document) and residential address,

b) for legal persons – name, registration number, legal address, the given name, surname, personal identity number (if the person does not have a personal identity number – the date of birth, the number and date of issue of a personal identification document, the state and authority, which issued the document), office and residential address of the representative who signs the memorandum of association in the name of the legal persons;

2) the firm name of the company;

3) the amount of the equity capital of the company, the number of shares and nominal value;

4) the amount of the equity capital each founder has subscribed to and the amount of equity capital to be paid-up before registration, the procedures and time periods for payment;

5) the number of shares due to each founder according to the part of the equity capital such founder has subscribed to;

6) the number of and the nominal value total of those shares which, when founding the company, are to be paid-up with material contributions, indicating each item of the material contribution, and the given name, surname, personal identity number (if the person does not have a personal identity number – the date of birth, the number and date of issue of a personal identification document, the state and authority, which issued the document) and residential address of those persons who have assumed obligations to make property contributions;

7) the allowed amount of founding costs and the procedures for covering these costs;

8) any special duties, rights or advantages which are granted during the period of the founding of the company to a person who has taken part in the founding of the company;

9) the given names, surnames, personal identity numbers (if the person does not have a personal identity number – the date of birth, the number and date of issue of a personal identification document, the state and authority, which issued the document) and residential addresses of the members of the board of directors of the company;

10) the given names, surnames, personal identity numbers (if the person does not have a personal identity number – the date of birth, the number and date of issue of a personal identification document, the state and authority, which issued the document) and residential addresses of members of the company council (if the company has a council);

11) the given name, surname, personal identity number (if the person does not have a personal identity number – the date of birth, the number and date of issue of a personal identification document, the state and authority, which issued the document) and residential address of the auditor, if an auditor is intended in the company;

12) other provisions which the founders consider to be significant and which are not in contradiction to law. (Article 143 of the Commercial law 2000).

In the Articles of Association of the company shall be indicated:

1) the firm name of the company;

2) the time period or goals of the activities of the company (if the company is founded for a specific period of time or to reach a specific goal);

3) the amount of the equity capital, the number of shares and nominal value;

4) the number of members of the board of directors of the company, especially indicating the rights of members of the board of directors to represent the company separately or jointly;

5) the number of council members of the company (if the company has provided for a council);

6) special provisions for the alienation of shares (if such are provided for);

7) other provisions which the founders consider to be significant and which are not in contradiction to law.

In addition to mentioned information, the Articles of association of stock companies shall additionally indicate:

1) if the company has different categories of stock – the categories of stock (indicating the rights which arise

from each category of stock) and the number and the nominal value of each category of stock;

2) whether the stock is registered stock or bearer stock and if the Articles of Association provide that registered stock can be converted into bearer stock or vice versa – the provisions for such conversions;

3) whether the stock is in printed form or dematerialised and, if the Articles of Association provide for the conversion of printed form stock into dematerialised stock and vice versa – the provisions for such conversions (Article 144 of the Commercial law).

Law on Companies of the Republic of Lithuania from July 13, 2000 regulates incorporation, management, activities, reorganisation, transformation, split-off and liquidation of the companies having the legal form of public and private limited liability company, the rights and duties of the shareholders, as well as establishment of branches of foreign companies and termination of their activities (Law on companies 2000).

The name of the public limited liability company must include the words “akcinė bendrovė” (public limited liability company) defining its legal form or the acronym “AB”. The name of the private limited liability company must include the words “uždaroji akcinė bendrovė” (private limited liability company) defining its legal form or the acronym “UAB”(Subarticle 5 of the Article 3 of the Law on companies 2000).

The main documents for making commercial company in Lithuania are: Memorandum of Association and Articles of Association.

The Memorandum of Association of the company as a minimum must indicate:

1) the incorporators (full name, personal number and place of residence of the natural person; the name of the legal person, legal form taken, its registration number, registered office, the register in which data relating to the person is accumulated and kept and the full name, personal number and place of residence of the representative of the legal person);

2) the name of the company being incorporated;

3) the persons who have the right to represent the company being incorporated and their rights and duties;

4) the amount of the company's authorised capital;

5) the nominal value of shares, the share issue price;

6) the number of shares according to classes, the rights attached to the shares;

7) the number of shares acquired by each incorporator and the number of shares according to classes;

8) the procedure and time limits for the payment for the shares acquired by each incorporator, including the procedure and time limits for the payment of initial contributions;

9) each shareholder's contribution made otherwise than in cash if payment for shares is made partly otherwise than in cash;

10) the time limits for convening the statutory meeting;

11) the procedure for submitting the documents of the company being incorporated and of information relating to the statutory meeting;

12) compensation of incorporation costs and remuneration for incorporation;

13) the procedure for concluding contracts in the name of the company being incorporated and for approving them;

14) the initial contribution repayment procedure, should the company be refused registration;

15) the date of the conclusion of the Memorandum of Association. (Article 7 of the Law on companies 2000)

The Articles of Association of a company shall constitute a document governing the conduct of the company's business.

2. The Articles of Association of a company must state:

1) the name of the company;

2) the legal form of the company (public limited liability company or private limited liability company);

3) the registered office of the company;

4) the purposes of the company, specifying its object of activity;

5) the amount of the company's authorised capital;

6) the number of shares and their number according to class, their nominal value and the rights they carry;

7) the powers of the General Meeting of Shareholders, the procedure for convening the Meeting;

8) other organs of the company, their powers, the procedure for electing or removing from office their members;

9) the procedure for publishing the notices of the company;

10) the daily of the Republic of Lithuania in which public notices shall be published;

11) the procedure for presenting the company's documents and other information to the shareholders;

12) the decision-making procedure as regards the establishment of branches and representative offices of the company, and appointment and removal from office of the heads of the company's branches and representative offices;

13) the procedure for amending the Articles of Association of the company;

14) the company's duration period if the company is established as a company of limited duration;

15) the date of signing of the Articles of Association. (Article 4 of the Law on companies 2000)

If we compare company laws of two countries, it looks that there are not big differences concerning company registration. Both Latvia and Lithuania implements newest EU directives in the national legislation.

Taxation issues of the companies

Indirect taxation is a very harmonized within EU. But EU Member States still have a lot of sovereignty concerning direct taxation. Therefore we will make a brief comparison on corporate income tax, personal income tax and social contributions in both countries.

Lithuania has one of the smallest Corporate income tax in EU for small companies – only 5%, if turnover is not more than 300 000 Euros and it has less than 10 employees; in other cases Corporate income tax is 15% (Law on Corporate income tax 2001).

Standart corporate income tax is 15% in Latvia, but starting from January 1st 2018, Latvia will introduce 0% rate for reinvested profit; in case profit will be distributed as dividends, the personal income tax will be 20% (Enterprise income tax 1995). Discussions is still going on this issue in Latvia. According to opinions of the authors of the Article, Lithuanian approach, when small companies have lower tax rate, is better than Estonian approach. But only time will show which way is better. Latvia has also so called Micro-enterprise tax regime (Micro-enterprise Tax law 2010). According to this law by micro-enterprise we understand an individual merchant, an individual undertaking, a farm or fishing enterprise, as well as a natural person registered as a performer of economic activity at the State Revenue Service, or a limited liability company, if they conform to all of the following criteria:

- a) the participants (if any) are natural persons,
- b) the turnover does not exceed 100 000 euros in a calendar year,
- c) the number of employees does not exceed five at any time. An employee who is absent during employment relationship (including on study leave without retaining work remuneration, on maternity leave, parental leave, leave for the father of the child, adopters or another person who actually takes care of the child, as well as on leave without retaining work remuneration, or receiving sickness benefit) and who does not receive income from the micro-enterprise for the period of time, as well as employees suspended from work shall not be included in the number of employees,
- d) members of the board of directors of a limited liability company may only be employees of the micro-enterprise,
- e) the natural or legal person mentioned before is not a member of a partnership.

Micro-enterprise tax includes:

- a) State social insurance mandatory contributions, personal income tax and State fee of the business risk for micro-enterprise employees,
- b) enterprise income tax, if the micro-enterprise conforms to the features of the enterprise income taxpayer,
- c) personal income tax of the micro-enterprise owner for the part of the micro-enterprise revenue from the economic activity. A micro-enterprise tax rate is 15 per cent. Problem is that case of Micro-enterprise tax persons are not socially protected, therefore Latvian government starts to think how to end this practise.

Personal income tax (On personal income tax 1994) in Latvia is a tax, which is imposed on income acquired by a natural person, and it of:

- 1) salary tax calculated from the income acquired by the employee and paid by the employer;
- 2) fixed income tax regarding income from economic activity;
- 3) tax for income from economic activity where it is not the object of the enterprise income tax, and tax from other sources of income;
- 4) tax for income from capital, including tax from an increase in capital;
- 5) licence fees for the performance of separate types of economic activities;

6) the parts of the micro-enterprise tax in accordance with the Micro-enterprise Tax Law;

7) seasonal agricultural worker income tax.

Lithuanian Personal income tax (Law of the Republic of Lithuania on income tax of individuals 2002) provides that tax shall be paid by any individual who has derived and/or earned income. By income law presumes positive income, attributed income of the European economic interest grouping, contributions (or a part thereof) returned after terminating life insurance contracts or leaving a pension fund, as well as remuneration received for the work done, services provided, rights transferred or granted, property or means sold or otherwise transferred and invested and/or any other benefit in cash and/or in kind, with the exception of:

1) shares issued to shareholders free of charge, in proportion to the number of their shares, or the sum whereby the par value of the shares issued earlier has been increased as a result of the increase of the authorised capital, as well as the amount by which the value of member shares or interests has been increased as a result of the increase of the authorised capital for holders of member shares or interests, in proportion to the value of their member shares or interests, as well as funds (a part thereof) and/or assets (a part thereof) received when the authorised capital of an entity is reduced, according to the reduction part of the authorised capital consisting from the contributions made by the members of the entity;

2) real property recovered under the Law of the Republic of Lithuania on the Restoration of the Rights of Ownership of Citizens to the Existing Real Property, as well as savings restored under the Law of the Republic of Lithuania on the Restoration of Savings of the Population;

3) profit or a part thereof of a European economic interest grouping received by an individual (a participant of the European economic interest grouping);

4) the output VAT amount calculated in respect of the goods supplied and services provided by an individual (to an individual);

5) amounts (except for the expenses of an individual compensated by a person connected to the individual concerned through employment relations or corresponding relations) allocated to cover expenses related to accommodation, catering, participation registration or travel, provided those expenses are related to voluntary work that is organised in accordance with the procedure established by the legal acts, the duties of work or individual activities of an individual;

6) benefit received by individuals, if it is impossible to determine individual benefit of a specific person;

7) difference in the value of assets resulting from operations effected between the entities indicated in subparagraph 2 of paragraph 1 of Article 41 of the Law of the Republic of Lithuania on Corporate Income Tax in the course of reorganisations or transfers specified in paragraph 2 of Article 41 of the Law on Corporate Income Tax where the shares (interests, member shares) are acquired by means of an exchange of the shares (interests, member shares) held by members of an entity for the shares (interests, member shares) of another entity, with the exception of cash payments for the difference in the price of the shares; 8) difference in the

value of assets resulting from operations effected between the entities indicated in subparagraph 1 of paragraph 1 of Article 41 of the Law of the Republic of Lithuania on Corporate Income Tax in the course of reorganisations or transfers specified in paragraph 2 of Article 41 of the Law on Corporate Income Tax where the shares (interests, member shares) are acquired by means of an exchange of the shares (interests, member shares) held by members of an entity for the shares (interests, member shares) of another entity, with the exception of cash payments for the difference in the price of the shares.

Table 2. Taxation of Labour force in Latvia and Lithuania

No	Type of comparison	Latvia	Lithuania
1.	Minimum salary (2017)	380 Euro	370 Euro
2.	Tax rate	23%	15%
3.	Social contributions	34,09%	30,98%
4.	Tax – exempt income	75-100 Euro	200 Euro

From the table we could see that taxation of labour force is more favourable in Lithuania; it means that companies in Lithuania perform business activities in better conditions. Also, using salary calculation calculators in both countries (http://m.vid.lv/lv/kalkulatori/algu_kalkulators/2 in Latvia; <http://www.auditum.lt/index.php/atlyginimu-skaiciuokle/277-atlyginimu-skaiciuokle-2.html> in Lithuania)

we could come to the following result: if employee receives bruto salary 1000 Euros, after tax employee in Latvia will receive 706 Euros, employee in Lithuania will receive 760 Euros. Also, if we will take for comparison minimum wage of Lithuania – 370 Euro, then after tax Latvian employee will receive 278 Euros, but Lithuanian employee 310 Euro.

Insolvency regulation

Insolvency processes in the Republic of Latvia are regulated by Insolvency law. The purpose of this law is to promote the honouring of the obligations of a debtor in financial difficulties and, where possible, the renewal of solvency, applying the principles and lawful solutions specified in the law. Insolvency law in Latvia shall apply to a legal person (except the entirety of property of an estate) or to a natural person. In respect of the State, local government or other legal person governed by public law the insolvency proceedings and legal protection proceedings shall not be applied (Insolvency law 2010). The following principles of legal protection proceedings, the insolvency proceedings of a legal person and insolvency proceedings of a natural person in Latvia shall be applied:

1) principle of the preservation of rights – the rights of creditors acquired prior to proceedings shall be observed during the proceedings. The restriction of rights of creditors specified within the scope of the proceedings may not be greater than is necessary for achieving the objective of the respective proceedings;

2) principle of creditor equality – creditors shall be given equal opportunities to participate in proceedings and receive satisfaction of their claims in accordance with the

obligations which they have established with the debtor prior to the commencement of proceedings;

3) the principle of not allowing arbitrariness – a creditor and debtor may not perform individual activities which cause harm to the interests of the creditors in general;

4) principle of honouring of obligations – measures which allow the obligations undertaken by a debtor to be honoured in a greater amount shall be applicable within the scope of proceedings;

5) principle of effectiveness of proceedings – such measures which allow the objective of the proceedings to be achieved in a most complete manner with the least resources shall be applicable within the scope of proceedings;

6) principle of quick turnover – the task of the proceedings is to maintain a commercially lawful quick turnover. The sale of the property of a debtor shall be performed in order to ensure the return thereof to commercially lawful circulation as quickly as possible;

7) principle of transparency – in order to ensure credibility, information regarding proceedings must be accessible to all persons involved in the proceedings, thereby promoting the observation of the interests of these persons and the achievement of the objectives of the proceedings. An exception is information the unrestricted disclosure of which might harm the lawful interests of a debtor or a creditor;

8) principle of good faith – persons involved in proceedings shall use their rights and fulfil their duties in good faith. A debtor and creditor may not use the proceedings in order to make a living unfairly (Insolvency law 2010).

Republic of Lithuania Enterprise bankruptcy law regulates insolvency processes in Lithuania. This law applies to all legal persons registered in the manner prescribed by the legal acts of the Republic of Lithuania, except for budgetary institutions, political parties, trade unions and religious communities and associations. The specific features of bankruptcy process may be established in special laws regulating the activities of legal persons. Definition “Bankruptcy” means the state of an insolvent enterprise where bankruptcy proceedings have been initiated against the enterprise in court or the creditors are performing extrajudicial bankruptcy procedures in the enterprise.

“Bankruptcy process” means the totality of judicial or extrajudicial enterprise bankruptcy procedures (Republic of Lithuania Enterprise bankruptcy law 2001).

Legal protection proceedings were introduced in the latest law of the Republic of Latvia on insolvency. It shall be applicable to legal persons, partnerships, individual merchants, persons registered in a foreign country who perform permanent economic activity in Latvia, and to the producers of agricultural products. The court decision on initiation of a matter of legal protection proceedings has the following effects:

1) a stay of the enforcement of judgments in matters regarding that adjudged, and the recovery of the amount not yet recovered and in matters regarding the honouring of obligations through the court in accordance with the procedures laid down in the Civil Procedure Law;

- 2) a prohibition for the secured creditor to request the sale of the pledged property of the debtor, with some exceptions;
- 3) a prohibition for the creditor to submit an application for the insolvency proceedings of a legal person;
- 4) a prohibition to perform the liquidation of a debtor;
- 5) the suspension of the penalty increment;
- 6) the suspension of such an interest increment which exceeds the statutory interest, except the cases where the main refinancing operations rate specified by the European Central Bank is above the statutory interest rate; then the main refinancing operations rate specified by the European Central Bank shall apply;
- 7) the suspension of the late payment charge increment;
- 8) the suspension of the calculation of the late charges of tax claims.

One or several methods shall be applied in legal protection proceedings:

- 1) the postponement of the honouring of payment obligations;

Court system

In Latvia, court cases shall be heard by district (city) courts, regional courts and the Supreme Court, but in the event of war or a state of emergency, also by military courts. Constitutional Court shall review cases concerning the conformity of laws with the Constitution, as well as other cases conferred within the jurisdiction thereof by law. The Constitutional Court is entitled to declare laws or other enactments or parts thereof invalid (The Constitution of the Republic of Latvia 1922).

According to the Article 111 of the Constitution of the Republic of Lithuania, the courts of the Republic of Lithuania shall be the Supreme Court of Lithuania, the Court of Appeal of Lithuania, regional courts, and local courts. For the consideration of administrative, labour, family, and cases of other categories, specialised courts may be established according to the law. The Constitutional Court shall decide whether the laws and other acts of the Seimas are in conflict with the Constitution, and whether the acts of the President of the Republic and the Government are in conflict with the Constitution or laws (The Constitution of the Republic of Lithuania 1992).

National court practise show that most cases cannot be resolved in a single court hearing. Court hearings of a case in a court of first instance may take several months, starting from the date of the registration of the application by the court. Waiting for a final judgment on the average may last up to a few years.

Therefor in order to reduce the lengthy proceedings of a legal dispute in the state courts, parties to a commercial agreement may agree to resolve disputes arising from such agreement in a so-called court of arbitration, established pursuant Arbitration law of Latvia (Arbitration law 2014) or to the Law on Commercial Arbitration of Lithuania (Law on Commercial Arbitration 2012).

Court of arbitration may be established in accordance with the procedures laid down or resolving a specific civil legal dispute (so called – ad hoc arbitration), or for

- 2) the alienation of movable property or immovable property or encumbrance with rights in rem in order to achieve the extension of the time period for meeting the creditors' claims, or satisfying of the creditors' claims;
- 3) the increase of the basic capital of a debtor – capital company (including the investing of the right of the creditor to claim against the debtor in the equity capital);
- 4) reorganisation of a debtor – commercial company;
- 5) other methods which comply with the objective of legal protection proceedings.

A plan of measures of legal protection proceedings is in effect from the day when it has been approved by court. The time period for implementation of legal protection proceedings shall be determined as not exceeding two years from the day of entering into effect of the court adjudication regarding the implementation of the legal protection proceedings. (Insolvency law 2010). Probably the Republic of Lithuania has to introduce legal protection proceedings in the national law on insolvency.

permanent operation (so called – permanent court of arbitration).

Conclusions

According to general statistics aging of population, number of active companies are more less the same in both countries. It means business entities operates in a very similar conditions in Latvia and Lithuania. Thanks to the Directives of the European Union establishment process of the commercial companies is very similar. Labour Taxation level is more favourable in the Republic of Lithuania from the point of view of business and employees. Therefor Latvian legislator must to make changes in Latvian Personal Income Tax law to improve competitiveness of the Latvian companies. Lithuanian 5% rate of the Corporate income tax is a very attractive for small companies; Latvian legislator must think about similar approach in Latvia. There are not big differences in the insolvency processes in both countries; but some nuances are different. State court proceedings are comparative long in both countries. Therefor it is better to choose commercial arbitration for dispute resolution between companies from Latvia and Lithuania.

References

- Arbitration law (2014). Law of the Republic of Latvia. http://vvc.gov.lv/export/sites/default/docs/LRTA/Likumi/Arbitration_Law.pdf
- Balance of trade of Latvia (2017) <https://tradingeconomics.com/latvia/balance-of-trade>
- Micro-enterprise Tax Law (2010) Law of the Republic of Latvia <https://likumi.lv/doc.php?id=215302>
- Latvian foreign trade balance improves.(2016) <http://bnn-news.com/latvian-foreign-trade-balance-improves-154486>
- Law on companies of the Republic of Lithuania (2000) <http://www.finita.lt/en/uab-ltd-set-up/incorporation-of-ltd-uab/law-on-companies-of-the-republic-of-lithuania/>
- Law on Corporate income tax (2001). Law of the Republic of Lithuania. <file:///C:/Downloads/Law%20on%20Corporate%20Income%20Tax.pdf>

- Law of the Republic of Lithuania on income tax of individuals (2002)
file:///C:/Downloads/Law%20on%20income%20tax%20of%20individuals.pdf
- Law on Commercial Arbitration (2012). Law of the Republic of Lithuania.
file:///C:/Downloads/The%20Republic%20of%20Lithuania%20Law%20on%20Commercial%20Arbitration%202012.pdf
- Insolvency law (2010) Law of the Republic of Latvia.
<https://likumi.lv/doc.php?id=214590>
- On Enterprise income tax (1995). Law of the Republic of Latvia. <https://likumi.lv/doc.php?id=34094>
- On Personal Income Tax (1994) Law of the Republic of Latvia.
<https://likumi.lv/doc.php?id=56880>
- Republic of Lithuania Enterprise bankruptcy law (2001)
<http://www.lithuanialaw.com/lithuanian-enterprise-bankruptcy-law-508>
- The commercial law of the Republic of Latvia (2000)
<https://likumi.lv/doc.php?id=5490>
- The Constitution of the Republic of Latvia (1922)
<https://likumi.lv/doc.php?id=57980>
- The Constitution of the Republic of Lithuania (1992)
<http://www3.lrs.lt/home/Konstitucija/Constitution.htm>

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Renata Šliažienė. Assoc. prof of Lithuania Business University of Applied Science. 2008-2015 Klaipėda State Border Guard Service - police Officer. 2015 till now Lithuania Business University of Applied Science - The head of the Law Department. Education - Higher (university). Institution - Professional qualification/degree, degree in science Lithuanian University of Law (Mykolas Romeris University) Master of Law qualifying degree 2014, Lithuanian University of Law (Mykolas Romeris University) Bachelor of Law qualifying degree 2012. Address: Klaipėda, Poilsio g. 10-73, Klaipėda, post code 93197 e-mail: renata.sliaziene@ltvk.lt

Janis Grasis. Doctor of International law; associated professor of BA School of Business and Finance (Latvia); leading researcher at Riga Stradins University (Latvia). Field of scientific research: International law; Comparative law, Finance law; Trust law. Janis Grasis received grant from the Lithuania State Scholarship in academic year 2016/2017 and was guest-professor at Lithuania Business University of Applied Science. Valdemara str.161, Riga, LV-1013, Phone: +371 67387317, E-mail: janis.grasis@ba.lv

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- 4) J.Grasis (2015). The protection of creditors within insolvency case of the commercial bank. USA – China Law Review, Volume 12, Number 4 April 2015, p.p.320 – 328. EBSCO data base.
- 5) J.Bojārs, J.Grasis (2015) Necessity of Introduction of the Progressive Income Tax System: case of Latvia. Proceedings of the 2015 International Congress on Economics, Social Sciences and Information Management ; Bali, Malaysia, March 28.-29, 2015.
- 6) J.Grasis (2014) Trasts un naudas atmazgāšanas novēršana: problēmas un risinājumi. Administratīvā un kriminālā justīcija. Nr4/2014, 37.-44.lpp.
- 7) J.Grasis (2012). Centralizēts akciju sabiedrību akcionāru reģistrs: nepieciešamība un risinājumi//Biznesa augstskolas Turība 2012.gada zinātniskās konferences „Ilgtspējīga uzņēmējdarbība mainīgos ekonomiskos apstākļos” rakstu krājums http://aurora.turiba.lv/bti/Editor/Manuscript/Proceeding/LV_Grasis.htm
- 8) D.Atstāja, J.Grasis, J.Ieviņš, T.Tambovceva. (2011) Latvijas vide, dabas daudzveidība un starptautiskās saistības. Monogrāfijā Vide un ekonomika, 2011, 11.-36.lpp. ISBN 978-9984-45-371-2
- 9) Grasis J. Banku darbības tiesiskā vide. Rīga: Latvijas komercbanku asociācijas mācību centrs, 2008.
- 10) Zinātniskā monogrāfija: J.Grasis. Trasta tiesiskais regulējums un tā iespējamā pārņemšana Latvijā. Rīga, 2008.

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<http://aleph.library.lt/F/UYSMKM4NY8C9H33SP6PV8F2585NQU59CEEBJVCYCA3HUQNQCR5-31681?func=find-b-0&local_base=LBT10>, „paieškos lauke“ įvedus „Tema, dalykas (lit)“ (lietuvių kalba) ir „Tema, dalykas (eng)“ (anglų kalba).
4. **Įvadas**, kuriame suformuluotas mokslinio tyrimo tikslas, aptarta nagrinėjamos temos problema, aktualumas ir jos ištirtumo laipsnis, išskiriamas tyrimo objektas, uždaviniai bei tyrimo metodai. Analizė – straipsnio medžiaga. Straipsnio poskyriai *nenumerojami*.
5. **Analizė – straipsnio medžiaga**. Straipsnio poskyriai *nenumerojami*.
6. **Išvados**. *Nenumerojamos*.
7. **APA (American Psychological Association) metodinių reikalavimų pavyzdžiai**

Šaltinių citavimo pavyzdžiai

Citata trumpesnė negu 2 eilutės:

Anot tyrėjos, „studentams sunku perprasti APA reikalavimus“, tačiau tyrėja nenagrinėja konkrečių mpiežasčių (Jones, 1998, p. 199).

Citata ilgesnė negu 2 eilutės:

Jones tyrimas rodo:

Studentams sunku perprasti APA metodinius reikalavimus, ypač rašantiems pirmą darbą, kuriame reikia nurodyti šaltinius. Šie sunkumai gali kilti ir dėl to, kad daugeliui studentų nesiseka susirasti metodinių reikalavimų aprašo arba jie droviasi prašyti pagalbos darbo vadovo. (p. 199)

Citatos perfrazavimas:

Anot Jones (1998), APA metodiniai reikalavimai citatų šaltiniams yra sunkiai perprantami tiems, kurie juos taiko pirmą kartą.

APA metodiniai reikalavimai citatų šaltiniams yra sunkiai perprantami tiems, kurie juos taiko pirmą kartą (Jones, 1998, p. 199).

Literatūros sąrašo sudarymo pavyzdžiai

Cituojamas vieno autoriaus šaltinis:

Berndt, T. J. (2002). Friendship quality and social development. *Current Directions in Psychological Science*, 11, 7-10.

Cituojamas autorių kolektyvas (3-7 autoriai):

Kernis, M. H., Cornell, D. P., Sun, C. R., Berry, A., Harlow, T., & Bach, J. S. (1993). There's more to self-esteem than whether it is high or low: The importance of stability of self-esteem. *Journal of Personality and Social Psychology*, 65, 1190-1204.

Cituojama iš numeruoto periodinio šaltinio:

Scruton, R. (1996). The eclipse of listening. *The New Criterion*, 15(30), 5-13.

Cituojama iš žurnalo:

Henry, W. A., III. (1990, April 9). Making the grade in today's schools. *Time*, 28-31.

Cituojama iš knygos:

Autorius, A. A. (Leidimo metai). *Pavadinimas: Paantraštė*. Vieta: Leidykla.

Cituojama iš vėlesnių leidimų:

Helfer, M. E., Keme, R. S., & Drugman, R. D. (1997). *The battered child* (5th ed.). Chicago, IL: University of Chicago Press.

Cituojama iš internetinių šaltinių:

Autorius, A. A., autorius, B. B. (publikacijos data). *Pavadinimas. Internetinio šaltinio pavadinimas, numeris/tomas* (jeigu yra). Paimta iš <http://www.someaddress.com/full/url/>

PASTABA. Išsamiau apie APA stiliaus metodinius reikalavimus žr. OWL, Purdue for a complete listing of sources and formats, <http://owl.english.purdue.edu/owl/resource/560/01/>

8. Autorių trumpas CV, kurį sudaro: autoriaus vardas, pavardė. Mokslinis laipsnis. Darbovietė. Pareigos. Mokslinių tyrimų kryptis. Adresas. Telefonas. Kita informacija apie autorių. Autorių CV turi sudaryti **ne daugiau kaip 3000 spaudos ženklų**.

- Anotacijos: teksto dydis – 8 pt, pavadinimas – 10 pt, **Bold**. Po paskutinio pagrindinio žodžio taškas nededamas.
- Skyrių pavadinimai: mažosiomis raidėmis, kairėje, dydis – 11 pt., **Bold**.
- Žodis *literatūra* – 10 pt, literatūros sąrašas – 9 pt dydžio.

Reikalavimai straipsnio surinkimui ir sumaketavimui

- Straipsniai turi būti parengti MS Word programa A4 formato lapuose.
- Dokumento paraštės: viršuje – 2,0 cm, apačioje – 2,0 cm, kairėje – 2,0 cm ir dešinėje – 2,0 cm.
- Straipsnio tekstas: mažosiomis raidėmis lygiuojamas pagal abu kraštus, dydis – 10 pt, šriftas – Times New Roman, pirma pastraipos eilutė įtraukta 0.5 cm.
- Straipsnio pavadinimas: didžiosiomis raidėmis, kairėje, dydis – 14 pt., **Bold**.
- Autoriaus vardas, pavardė: mažosiomis raidėmis, kairėje, dydis – 12 pt., **Bold**.
- Institucijos pavadinimas: mažosiomis raidėmis, kairėje, 10 pt., *Italic*.
- Elektroninis paštas: mažosiomis raidėmis, kairėje, 10 pt., *Italic*.

- **Paveikslai ir diagramos** turi būti aiškūs, brėžiniai – sugrupuoti į vieną objektą.

Lentelės ir schemos turi būti sunumeruotos, ir turėti pavadinimus.

1. Lentelių pavadinimai rašomi virš lentelės centre.
2. Paveikslų pavadinimai rašomi po paveikslu centre.

Pateiktas tekstas papildomai redaguojamas nebus.

PASTABA. Patogu naudotis parengtu straipsnio šablonu.

Requirements for the authors, who want to publish their articles

The founder of a scientific journal “Vadyba / Journal of Management” is Lithuania Business University of Applied Sciences. Since 2000, the journal publishes technology, social sciences and physic sciences-related articles. The main goal of the scientific journal articles and conducted research is to emphasize the problems and present possible solutions for the public and private organizations of the region. The articles can be both empirical and theoretical.

The submitted articles must be original, previously unpublished. It is prohibited to publish the articles of this journal in other publications.

General requirements

- Articles submitted to the Editorial Board must be professionally edited, without spelling, punctuation and style errors. The articles must use scientific language.
- Articles shall be written in English.
- **The article shall be up to 10 pages long. The last page should take at least half a page, i.e. about 2/3 of the page.**
- The structure of the article must have a structure of a scientific article. It must contain the following:
 1. The **title** of the article. Article’s **author, institution**, which the author is representing. **E-mail** of the author of the article.
 2. **Abstract** with the main words in the language of the article. The Abstract should briefly cover the contents of the article; specify the aspect of how the problem will be analyzed. The text of the Abstract must be clear and concise. **The Abstract must contain at least 2000 characters.**
 3. **Keywords** – these are the words that express the most important features of the topic. Five or six keywords of the article must be included in the Lithuanian National M. Mazvydas library records of authoritative names and subjects. It is possible to check if the keyword is included in this list in the website of the library: http://aleph.library.lt/F/UYSMKM4NY8C9H33SP6PV8F2585NQU59CEEBJVCYCA3HUQNQCR5-31681?func=find-b-0&local_base=LBT10, by specifying the “topic, subject (lit)” (in Lithuanian) and “topic, subject (eng)” (in English) in the search field.
 4. **Introduction**, which formulates the purpose of the scientific study, discusses the question of the study, its novelty and degree of research, specifies the object of the study, objectives and methods.
 5. **Analysis – article material**. The sub-sections of the article are *unnumbered*.
 6. **Conclusions**. *Unnumbered*.
 7. **References**. *Unnumbered*. References in the body of the article should be cited in parenthesis by indicating the surnames of the authors and year, e.g. (Cooper 1994), (Cleland J.; Kaufmann, G. 1998). If an internet source does not have an author, the link is placed only in the main text in parenthesis. Letters “p” and “pp” are not written next to the pages.
 8. Examples of referencing:

Books

Valackienė, A. (2005). *Crisis Management and Decision-making*. Technology, Kaunas.

Berger, P. L., Luckmann, Th. (1999). *The Social Construction of Reality*. Pradai, Vilnius.

Journal articles

Boyle, T. (2003). Design principles for authoring dynamic, reusable learning objects. *Australian Journal of Educational Technology*, 19(1), 46–58.

Book articles

Curthoys, A. (1997), History and identity, in W. Hudson and G. Balton (eds), *Creating Australia: Changing Australian history*, 25 - 84. Allen and Unwin, Australia.

Web documents

Wiley, D. A. (2003). Learning objects: difficulties and opportunities. [Retrieved March 18, 2009], <http://opencontent.org/docs/lo_do.pdf>.

Statistical information and web resources

Lithuanian Emigration Statistics. (2009). Statistics Lithuania to the Government of the Republic of Lithuania. [Retrieved February 16, 2009], <<http://www.stat.gov.lt/lt/news/view/?id=6819&PHPSESID=5b1f3c1064f99d8baf757cde1e135bc0>>.

9. **Summary with the keywords** is written in English. **The summary should include at least 3000 characters.**
10. Short CV of the authors, which consists of: name, surname of the authors. Degree. Work. Occupation. Research direction. Address. Telephone. Other information about the author. The author CV must include **up to 3000 characters**.

Requirements for the outline and layout of the article

- The articles must be written in MS Word A4 pages.
- Document margins: top – 2 cm, bottom – 2 cm, left – 2 cm and right – 2 cm.
- Full text: in lowercase letters, aligned to both margins, size – 10 pt, font – Times New Roman, first line of the paragraph indented by 0.5 cm.
- Title of the article: in capital letters, left alignment, size – 14 pt., **Bold**.
- Author’s name, surname: in lowercase letters, left alignment, size – 12 pt., **Bold**.

- Institution name: in lowercase letters, left alignment, 10 pt., *Italic*.
- E-mail: lowercase letters, left alignment, 10 pt., *Italic*.
- Abstracts: text size – 8 pt, title – 10 pt, **Bold**. A full stop is not put after the last main word.
- Section names: lowercase letters, left alignment, size – 11 pt., **Bold**.
- Word *Literature* – 10 pt, literature list – 9 pt.
- **Figures** and **diagrams** must be clear, schemes – grouped into a single object.

Tables and **schemes** have to be numbered and titled.

1. Table titles are written above the table in the centre.
2. Figure names are written under the figure in the centre.

The text will not be further edited.

NOTE. It is obligatory to use the prepared template for the article.

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Išleido ir spausdino Klaipėdos universiteto leidykla
Herkaus Manto g. 84, 92294 Klaipėda
Tel. 8~46 39 88 91, el. paštas: leidykla@ku.lt