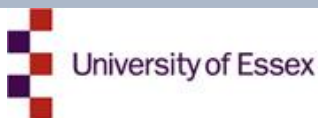


ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

2(4)
2015



RISEBA





Dear readers,

Today I bring to your kind attention a new issue of periodical scientific peer-reviewed journal devoted to sustainability issues. The journal continues its steady journey towards scientists, practitioners, politicians and other interested members of international community.

In nowadays processes of multifaceted sustainable development appear to be very much dependent on security and safety of environment, in which societies function. On the other hand, pace of sustainability processes is conditioned by values, determination and behavioral patterns of primary actors – individuals and organizations. The journal sections our contemporary life, raises issues, which have to be tackled and invites for the further analysis and formulation of plausible solutions. It could be claimed that content of the journal reflect a genuine reality and, hence, is valuable from theoretical and practical prospective.

I invite all interested parties to continue supporting this international scientific discussion by providing interest to issues related to sustainable development of individuals, organizations, societies and countries. Let us and future generations enjoy secure, safe successive movement towards better and fulfilling future.

With best regards,

A handwritten signature in blue ink, appearing to read 'Sankauskas', enclosed within a large, light blue oval stroke.

TAUTGINAS SANKAUSKAS

*President of
Lithuanian National Association
of Forwarders and Logistics*



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SUSTAINABLE SOCIAL ENTREPRENEURSHIP AND MOTIVATION: A CASE STUDY OF TWO NON-PROFIT ORGANISATIONS IN THE UK

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Abstract. This paper presents the findings of a case study on motivation in non-for-profit (NFP) organisations in the UK with particular reference to two organisations providing services to people with learning disabilities. Quantitative data was collected from 88 respondents (68 from Company-A and 20 from Company B), through questionnaire based-surveys. Interviews were used to triangulate the data and for validation purposes. The sample used entirely falls into the employees' category and includes: permanent, temporary, full time and part-time staff but not volunteers. Findings indicate that many individuals are attracted to work in NFP organisations because of their characteristics diversity factors. Other key motivational factors include training, and flexible working arrangements. Overall findings show that people are intrinsically motivated (64% of respondents, and over 85% enjoy this kind of work and feel listened). Company motivation was found to be low, as employees were not satisfied with the pay, still staff was motivated by intrinsic factors to remain. The findings conform to earlier studies on employees' motivation in social organisations and on pay and motivations.

Keywords: sustainability, social entrepreneurship, motivation, human resources, non-for-profit, organisation, health care

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1. Introduction

Motivation as a concept has been widely debated. It is an important aspect for the organisation (both for profit and non-profit ones) and has been linked to organisation performance, job satisfaction, productivity, staff turnover, and generally to its entrepreneurship sustainability (Cooke 2000; Purcell *et al.* 2003; Tippet and Kluvers 2009; Laužikas, Mokšėckienė 2013; Moskvina 2013; Wahl, Prause 2013; De Alencar, Almeida 2013; Išoraitė 2013; Prause, Hunke 2014; Tvaronavičienė 2014; Garškaitė-Milvydienė 2014; Figurska 2014; Dzemyda, Raudeliūnienė 2014; Tarabkova 2014; Raudeliūnienė *et al.* 2014; Vasiliūnaitė 2014; Tunčikienė, Drejeris 2015; Giessen 2015; Išoraitė 2015; Goyal, Sergi 2015). Motivational factors are crucial in order to analyse and understand why “working-in” and “remaining-in” NFP organisations despite facing worse working and economic conditions than in the for-profit labour market (Caurkubule, Rubanovskis 2014; De Alencar, Almeida 2013; Moskvina 2013).

Most managers assume that employees perform based on the level of reward. However, too often monetary factors

are considered to be the most significant ignoring intrinsic motivation and its relation to performances. It is well known that money is the most debated aspect of motivation. Gupta and Mitra (1998) argue that monetary incentives are strong motivators and they established that *“financial incentives were particularly powerful with respect to performance quantity”* (Tippet and Kluvers 2009: 7). However, the main common finding is that people work and are retained in NFP organisations not primarily because of rewards but because of intrinsic factors as the main driving force (Schepers *et al.* 2005; Tunčikienė, Drejeris 2015; Giessen 2015; Išoraitė 2015, Išoraitė *et al.* 2014). Furthermore, it has been argued that the need for people to be employed in a particular organisation is largely based on *“human motivation”* (Tippet and Kluvers 2009: 8; Laužikas, Mokšeckienė 2013; Moskvina 2013; Wahl, Prause 2013; De Alencar, Almeida 2013; Išoraitė 2013; Prause, Hunke 2014; Tvaronavičienė 2014). In a case study about non-profit organisations argue that people join and work for such organisation (i.e. NFP) because they are more inclined to intrinsic rather than extrinsic motivation such as the financial rewards.

2. Methodology

Given the gained benefits, many recent studies in social research have adopted a case study approach (Yin 2002), so have we. Our initial assumption has been that people work in the NFP organization (specifically the two in the case study), not for the prospects of financial gain as a main driver. We have taken into account Saunders' theory relative to the possibility of a *“formulation regarding the cause and effect relationships between two or more variables which may not have been tested”* (Saunders *et al.* 2009: 602) and drafted a work-hypothesis. As the case study allows the use of many sources to collect the data, a questionnaire survey was formulated so as to gather as much as possible evidence in relation to the motivational aspects of the respondents. Purposive sampling has been used as it is recommended when the selected organisations are representative and can answer the research questions (Saunders *et al.* 2009). Interviews were used to triangulate the data and for validation purposes Bell (2005). Interview was conducted face to face, while questionnaires were sent to the respondents. The work-hypothesis related to Company-A and Company-B was that the *“non-monetary motivational factors were key for personnel retention, engagement and performance levels despite the large gaps and shortcomings spotted in respect of Hygiene Factors”*.

3. Data analysis and selected sample

The sample size of 100 employees was obtained using random sampling techniques from the sample frame of 4500 Company-A employees. A total of 100 and 50 questionnaires were sent to Company-A and Company-B respectively. In total 88 completed questionnaires were collected from 150 questionnaires that were distributed, which is 59% compound response rate from Company-A and Company-B (see Table 1). In Company-B out of 50 employees who received the questionnaires, only 20 questionnaires were returned which is 40% and is relatively lower than in Company-A but still meets the minimum requirement for a response rate of higher or equal to 30% recommended in social science research (Bryman 2008). Random sampling was chosen because it provides an equal chance of each employee in the sample frame of the 4550 population to be selected. For Company-A the representative sample is N1=68, and for Company-B N2=20, both samples are representative and this allows some generalisation of the findings (Denscombe 2003).

Table 1. Respondents for Questionnaire survey in Companies A and B

Organisation	Sample size	Respondents	Response Rate (%)
Company-A	100	68	68%
Company B	50	20	40 %
Total	N=150	N=88	59%

Source: Denscombe (2003)

To complement the quantitative data collected from questionnaires, a series of interviews with support workers, senior support workers and line managers were conducted. The interviews involved people from both Company-A and Company-B. A total of 23 people were interviewed with the majority of the respondents from Company-A. The interview helped in triangulation and validation of the information obtained in the questionnaire-based survey.

Aspects related to ethical considerations were taken into account. Consent forms were signed and respondents in the questionnaire survey and interviews were free to decline or participate in the research. While the directors of the companies allowed the collection of data, consent for the use of the real names was denied. The questionnaire was formulated including 31 questions. The questions were coded and gathered data was processed using SPSS 17 statistical package software. The analysis used frequency tables, correlations and cross-tabulations. Out of the total 88 respondents (N=88), the majority were from Company-A (77%). This implies that care should be taken in comparing the two organisations, therefore, an indexing, or proportional approach, has been considered as meaningful rather than a direct figure comparison which would not account for the above mentioned disparity.

4. Gender distribution analysis

In this study the gender profile of respondents in both organisations show that Males are 34% while Females are 63% while some respondents declined to mention their gender. Findings from Company-A show that the company has a rich diversity of employees in different positions ranging from support workers to managerial levels (Table 2).

Table 2. Company-A diversity table: gender, ethnicity and disability*

Job title	Headcount	Gender (%)		Ethnic Origin (%)							Disability (%)		
		M	F	White	Mixed	Asian	Black	Chinese	Not Known	Other	Yes	No	Refuse to say / not known
Support Worker	2660	27.9%	72.1%	62.6%	1.3%	2.0%	17.4%	0.1%	15.7%	80.0%	1.6%	60.1%	1020
Senior Support Worker	285	27.4%	72.6%	70.5%	1.8%	1.4%	17.9%	0.0%	7.4%	1.1%	0.7%	42.8%	161
Deputy Team Manager	79	17.7%	82.3%	64.6%	0.0%	2.5%	5.1%	1.3%	25.3%	1.3%	0.0%	46.8%	42
Team Leader/Manager / Home Manager	286	19.2%	80.8%	76.9%	0.7%	1.0%	4.9%	0.0%	16.1%	0.3%	1.0%	38.5%	173
Area Manager	52	25.0%	75.0%	84.6%	0.0%	1.9%	1.9%	1.9%	9.6%	0.0%	0.0%	21.2%	41
Regional Director & above	21	38.1%	61.9%	81.0%	0.0%	0.0%	0.0%	0.0%	19.0%	0.0%	0.0%	33.3%	14
Admin staff not NDGL	44	9.1%	90.9%	84.1%	2.3%	2.3%	2.3%	0.0%	9.1%	0.0%	4.5%	63.6%	14
Other	65	33.8%	66.2%	89.2%	1.5%	0.0%	1.5%	0.0%	7.7%	0.0%	10.8%	47.7%	27
NDGL Staff	166	30.7%	69.3%	81.3%	6.0%	6.0%	3.0%	0.0%	6.6%	2.4%	2.4%	43.4%	90
Total Staff	3658	27.0%	73.0%	66.4%	1.2%	2.1%	14.8%	0.1%	14.6%	1.6%	1.6%	55.1%	1582
Highest earning 5%	183	35.0%	65.0%	73.8%	0.5%	3.8%	4.9%	0.5%	15.3%	0.5%	0.5%	42.1%	105

Source: HR Dept. Company-A as per 31st Dec 2010

The majority of support workers (62.6% support workers and 70% of senior support workers) are from white ethnic background, followed by black (17.4% support workers and 17.9% senior support workers). These first two groups make 80% of the Support worker group and 88% of the Senior support workers group. The third group was labelled as “not known” and it includes those who refused to answer. Further analysing the data it is noticeable that group represented by employees of white ethnic background have a proportional representation in the various roles including managerial ones, the black ethnic group has a greater presence in the support worker and senior support workers segment. One of the reasons might be due to the fact that a higher percentage of the black ethnic group has a higher turnover due to various external circumstances not depending from Company-A. This could be objective of further analysis and investigation. Employees of Asian and Chinese ethnic background are by far less than other overall therefore their distribution between the various managerial and non-managerial roles is statistically less relevant as it could be greatly influenced by one individual's career, yet they have a normally distributed proportion between managerial and non-managerial positions, team leaders, deputy managers, area managers, regional directors and etc.).

5. Education/qualification and experience at entry distribution analysis

The study also asked respondents about their qualification levels at entry in the both organisations. Results indicate that 27% of respondents joined the companies with “O” level/GCSE qualifications, and only 16% had “A” levels. Those with NVQ or vocational skill were 29%, a slightly higher than those employees with GCSE qualifications. And 28% of the employees are without any education qualifications. In relation to the motivation for joining a company, the results confirm that for a good part of the sample, one of the reasons to work in either company was their relative ease of entry. This implies that even people without formal qualifications could still join the organisations (as indicated by a 29% proportion of employees having no formal education and or vocational

qualifications). This principle is also part of the human resource policy of both Company-A and Company-B and proved to be a significant motivation for people in joining the company. The results show that “word of mouth” also helps to project the company image towards the outer world and therefore many of the people who become inwardly motivated attracted through extrinsic factors others to enter and work both in Company-A and Company-B.

In this study it has been possible to compare and examine responses of people with a work experience from 1-5 years, 6-7, 8-10, 10+ years, or not at all. The results show that 34% of respondents indicated to have no work experience, followed by those with 1-5 years of experience (26%) and over 10 years of experience (26%). A small proportion (14%) of respondents had experience of 6-10 years. These results prove the fact that entry criteria are non-discriminatory in both Company-A and Company-B, and this is to be considered crucial because talented (potential employees) are not left out due to lack in qualifications. This translates in the fact that their aptitude to work is regarded as a very important motivation factor (which is intrinsic in nature) and can be effective in determining work performance. Moreover both companies use the same approach to recruit even those people not only without experience (34%) but also without vocational or formal education (29%). It is apparent that the two organisations under exam attract prospective employees also because they make them feel not-discriminated in any respect. The employees are encouraged towards self-development and this provides room also for those without any qualification. The respondents were also asked how many years they have worked in Company-A and Company-B respective results show that 15% had a work experience of 2 years. Those with 1-2 years of work experience were 23% while those with 1-5 years were 48% and those above 5 years of experience were 52%. A 60% of the respondents had previously worked in 1 to 4 different organisations. A 40% of employees in Company-A and Company-B worked in more than 4 different work places. Combining this information it can be argued that most of the people who joined the two companies had previous experience of moving from one company to another either for dissatisfaction or lack in motivation.

6. Employees' attitude

A 70% of employees are full time and 30% part time. As far as the relevance of training is concerned, the study show that 67% of employees feel that the training they received on the job was significant. The attitude of staff towards training and career opportunity was stressed by 47% of respondents who strongly agreed. Those having a positive attitude towards equal opportunity in training offered by the Company-A accounted for a 74%, while 20% had a negative attitude. Employees' perception of belonging to the organisation was indicated only by a relatively small proportion, 29%, while 71% felt that they were not part of the organisations. According to the insight from qualitative data, this could be due to lack of recognition or status, within their jobs. Furthermore, employees may have routine jobs and not be involved in decision making. Despite this, most respondents have positive attitude towards their job context, and work environment as per data in Figure 1.

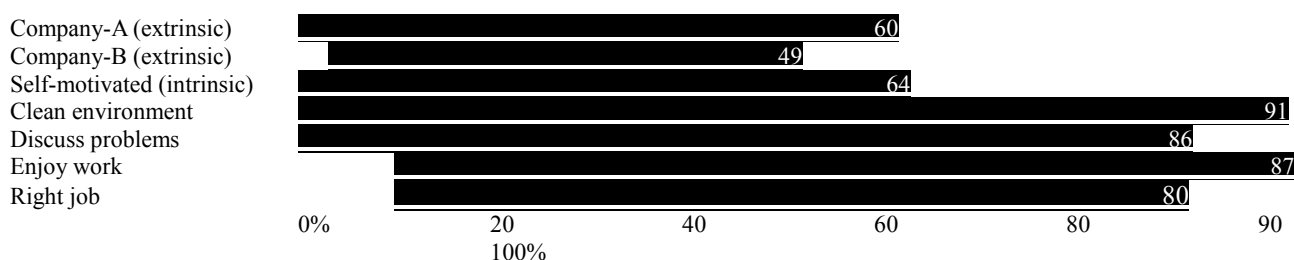


Fig.1. Motivation distribution % of respondents

Source: author

A clean environment scored 91% (showing the relevance of Herzberg's Hygiene factor). Likewise, a majority of 80% respondents reported feeling to be in right job. Additionally, the results on self-motivation (intrinsic motivation) suggest supporting a correlation between feeling to be in the right job and being motivated as 86% of respondents were of the opinion that they are intrinsically motivated, with Company-B performing better than Company-A, in respect of providing motivation to their employees.

7. Employee's rewards

In the interview with the management emerged that Company-A could not pay enough money simply because “*the company does not make money*” (verbatim from the interviews), yet it was noted that though the Company-A did not pay enough money, employees still want to work in the organisations. The results have indicated that 50% of Company-A and Company-B employees were of the opinion that the wages were fair. However, a 40% thought the wages were unfair but there were overriding factors which could retain them within the organisation. One of the dominant factors that emerged was training. Another major factor was job retention/security as while many employees entered without qualifications, they would have limited prospects for relocation elsewhere. Employees in both companies indicated that they wanted more training hours (65%) even if over 50% of employees need to attend non-mandatory health and social care training.

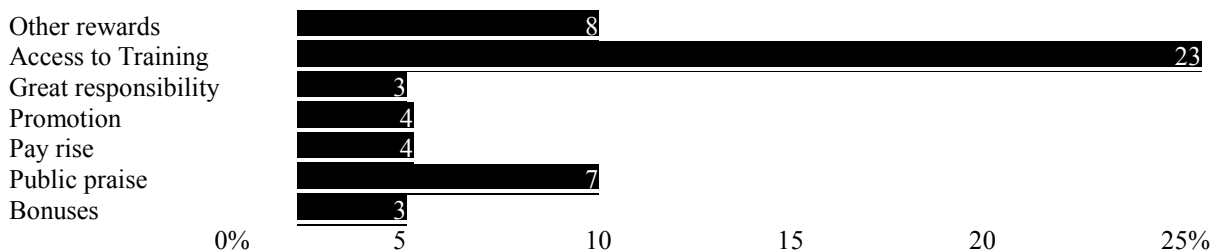


Fig.2. Motivation factors in Company-A and Company-B (% responses)

Source: author (multiple response)

The data from Figure 2 illustrate that company access to training is the main reward which employees perceive as a motivation factor. Other motivation factors ranked second with 8%. The recognition in the form of public praise ranked third with 7%. Promotion and pay rise had same proportion of responses 4% and bonuses and great responsibility are least viewed as motivation factors with only 3% each. The findings appear in line with both Maslow's (1987) and Herzberg's (2003) theories on motivation. This study points out that the self-motivated employees represent 64% which implies that the examined organisations benefit from employees internal motivations and are rewarded by having placed a great emphasis on responsibility of the employees. Motivation should be incentivised by means of some form of reward which could be financial and/or non-financial. The same could be said for non-reward based incentives which could still be financial and/or non-financial. The study has pointed out that:

1. Both companies provide some direct or indirect financial benefit.
2. Both companies have a substantial program of trainings.
3. Both companies give public recognition to employees' achievements.
4. Both companies have a relatively lower pay than equivalent for profit organisation. However, Company-A receives funds from local authorities only while Company-B receives funds from local and central authorities. Thus, Company-A funds are smaller and less certain than those of Company-B.
5. Company-B employees salary is about 15 % higher than Company-A, moreover, Company-B employees get more holiday pay than Company-A.
6. Company-B employees enjoy their work more and they feel more part of the “*team*” than those of Company-A
7. Senior support workers/managers in Company-A may be required to work overtime but will only be paid as much as a simple support worker for the extra hours worked.
8. Company-A is a big company delivering its services in various locations and the employees have to work in different places and alone increasing the negative impact on employees' motivation. On the contrary in Company-B there is more social life as there is just one site where Company-B delivers its services.

In conclusion, Company-B has an overall better performance in motivating its staff than Company-A. Most profit

making organisations have very stringent entry criteria for employment, while many NFP have relatively flexible criteria which permit much diversity of background factors such as education and qualifications, skills, experience, age and gender. These factors appear to not only attract but also they have a decisive role in employees' retention.

8. Analysis of Motivation & Performance

Motivation is an increasingly important factor in the performance of both for-profit and non-profit organisations. Many enterprises recognise this by adopting specific measures designed to optimize staff motivation. In any organisation, there can be significant variation in contributions made by individuals, as shown by Bratton *et al.* (2010:191). In the two organisations there are no strict entry criteria which dominate the recruitment process. In both organisation education and qualifications are not restrictive profile criteria. Car ownership requirement are not present and equal opportunity to access training is perceived as a motivation incentive. Maslow (1943), Herzberg (1968), and Hackman and Oldham (1976) all argue that the job context, or what Torrington *et al.* (2008) calls it the “*work itself*”, is an important factor for enhancing employees' motivation. Job satisfaction is perceived as one of the important element for employees' satisfaction. A number of studies have discussed job satisfaction with work performance (Purcell *et al.* 2003) and all arrive at a consensus that job satisfaction impacts on performance. In the case of the present study, findings indicate that this applies in the 80% of the cases. Maslow (1943) stress the importance of affiliation as one of the motivation drivers. The results of the present study show that a small proportion of employees feel that they were part of the organization thus showing that there is a clear problem with the extent of employees' involvement. The study also found that both companies needed to implement a policy which encourage and enhances team work and also involves employees in decision making. Many argue that money is not a motivation factor; however, findings of this study show that a 44% of employees replied that the pay was not fair (both in Company-A and Company-B).

9. Motivation in Company-A

It grants at least 20 days annual leave per year even if more can be provided depending on the employee's performance and permanence in the company (up to a maximum number of total paid holidays of 32 days thanks to the possible addition of one extra day for each year an employee has been in the company for at least 12 years). One of the extrinsic motivating factors is that flexible hours enable women to achieve greater balance between duties at work and at home. This aspect was reinforced by the fact that Company-A has adopted a scheme for discounted store cards from large retailers' organisations such as Cosco and Makro. Company-A employees benefit from a relatively good pension scheme and have access to on-line training facilities and this is perceived as motivational. Additionally, Company-A has established a forum where employees discuss issues pertaining to the work. The forum is called “*Evolution*” and is perceived as an incentive. Every three month the forum holds an event in which goals are set, it is possible to learn from each other's experience, and to nominate the best staff who will be awarded a small trophy. The employees rated the discussion at *Evolution* meetings long with the work place as highly motivational. However, Company-A lacks motivation bonuses, and managers somehow do not recognise employees (except for what is achieved via the “*evolution*” approach).

10. Motivation in Company-B

Company B employees' incentives include job security, good pay and contract as well as normal working hours Monday to Friday. Employees are provided with trainings on a monthly basis. The quality, and quantity, of training will depend on their development's needs (with some even regarded as mandatory). Additionally, employees are also entitled to holiday and sick pay (which is not always the case in this kind of working environment). The work environment is good and team-work is the norm. This was reflected in 60% of employees feeling motivated. The rewards in Company-B include a good pension (every employee can get private pension contributions scheme). Pay is relatively higher than in Company-A (if calculated on an hourly basis), however, employees in Company-A have more opportunities to receive additional pay for each extra hour worked.

Conclusions

The purpose of the present study was to explore the role of motivations in non-for-profit organisations. Specifically it reports the findings of two case studies conducted in the health and social care service provision for supporting people with learning disabilities and autism in the UK. Earlier studies on motivations in NFP organisations have established that, pay in these organisations is relatively lower compared to people working in the for-profit sector. In this respect, the present study conforms to other researches on what they concluded that despite lower pay people work in non-profit organisations because of the importance they attribute to these jobs. The study has confirmed that the main driver for people to enter and work in non-profit organisations is their individual intrinsic motivation. Furthermore, it pointed out a remarkable phenomenon that is: *the role of motivation is inversely proportional to the size of the company*, in other words as the company's human resource increases in size the motivation becomes weaker. Hence it can be inferred that small organisations are more likely to motivate employees than large organisations. What just stated is substantiated by the following findings: while Company-B has an estimated 6% of employees of Company-A, in Company-A only 29% of employees are motivated, whereas in Company-B this percentage rises to a 60%. Therefore the rates of employees' motivation in Company-A and Company-B can be deduced to be 1:2. Many factors can account for this scenario, they include employees' team work and the feeling experienced in small organisations, where employees tend to be more close to each other than in large organisations. However, given the nature of the analysis of the present study, there are limitations to the possibility for a generalisation of the findings related to the underlying causes of the relationship between motivation and company size. Hence this is an area for further research. This study has confirmed that non-monetary incentives are perceived higher as motivation factors by employees, and the conclusion) is that intrinsic motivations are overriding objectives for people working in non-profit organisations. Likewise, it has proven that where managers have embraced Theory Y as leadership style, they have increased motivation and performance as well as overall company competitive advantage (Cottrell 2003; Purcell 2003).

While organisations have an important role to play, intrinsic motivation drives employees to seek motivation beyond their organisations. The conclusion that can be derived is that organisation must also understand what motivational factors are offered by competitors. Intrinsic and extrinsic motivation appeared to contribute to people working in the NFP organisation with intrinsic factors dominating the motivation factors, while extrinsic ones are largely seen as external factors and relatively lower compared to all intrinsic variables of motivations. In Company-A and Company-B there is a differential on how employees perceived their organisations as motivating factors, empirical evidence have shown that 30% employees perceive that they are motivated by Company-A while 60% by Company-B. According to scientists (Armstrong 2006; Torrington *et al.* 2008; Caurkubule, Rubanovskis 2014; De Alencar, Almeida 2013; Išoraitė 2013; Moskvina 2013) HRM policies have addressed the issue of motivation, however, the study proved that 64% of respondents are intrinsically motivated while company motivation was found to be low, employees were not satisfied with the pay, and yet over 85% enjoy this kind of work and feel listened.

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SUSTAINABLE ENTREPRENEURSHIP IN CONDITIONS OF UN (SAFETY) AND TECHNOLOGICAL CONVERGENCE

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Abstract. These days the Internet has revolutionized lives not only of particular people, but it has also influenced the functioning of market economy in terms of globalization and technological convergence. The key condition of development and increase in popularity of e-services is maintaining the high level of social trust to this form of providing services and preventing social threats. The stability of functioning and information society development depends on open, reliable and safe cyberspace.

Keywords: convergence, information society, cybercrime, norms

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JEL Classifications: O1

1. Introduction

Modern economy is subject to incessant changes. The connection of technological progress, lower transportation costs and liberalizing the policies within and outside the European Union have led to the increase in trade as well as the flow of foreign investments between the countries with all related consequences (Peker *et al.* 2014; Šabasevičienė, Grybaitė 2014, Korsakienė 2013; Matyasik 2014; Vosylius *et al.* 2013; Teivans-Treinovskis, Jefimovs 2012). Globalization changes the surrounding in which the companies operate. They must quickly adapt to such changes, which actually is the condition of their survival. It is of vital importance for the functioning of the EU economy. Although globalization brings profits and new opportunities, it also means that Europe must face fierce competition both from the side of low cost economies, such as China or India's economies as well as economies based on innovations, such as the America's one. That is of great importance for the present information revolution and its economic consequences is the connection of two originally remote technologies-communication technology related to the transmission of data with the computer technology that influences data processing (Fuschi, Tvaronavičienė 2014). This phenomenon requires from entrepreneurs to undertake an appropriate action

plan. In order to facilitate it one must take into account more and more common phenomenon of convergence. The phenomenon of *convergence* is based on conformity of the processes and systems, it facilitates blurring the boundaries and divisions, and in turn directly influences bonding the international cooperation and developing globalization processes. The word convergence derives from Latin *convergere* (gather) (Kopaliński 1971) and means concurrence. Convergence is appearing more and more often as a definition related to the phenomena occurring in modern media, IT and telecommunication. This expression defines conforming the devices that begin serving similar functions, although originally they were not technologically related to each other, so-called technological convergence. It happens in the area of infrastructure and transportation, which corresponds to the convergence of devices, services and converging the network. The development of e-services is, among others, the response to changing reality, variability and dynamics of the development of modern global economy as well as creating a new reality, both a market and consumer one. There are many factors contributing to its present shape. The world has become a “global village”, in which there is a constant flow of people, goods, services and new technologies. That means changing the standards of living, not once giving them a new shape and conditions. The propellers of convergence in the field of e-services are: the Internet, e-business, the rapid development of information and multimedia applications as well as the increase of computing power and decrease in their prices (Kamiński 2000: 20). The term *convergence* that appears in publications discussing technology, business, and trade and regulation issues in the area of electronic communication is the term relating mostly to the phenomena occurring mainly in modern media, IT and ITC. That is why the changes in the sector of information-communication technologies are labeled as the process of “information technology convergence”, in which the integration of computers and ITC into one system of processing and exchanging information has established the new information architecture that enables the companies to gain a global competitive advantage (Laudon, K.C and Laudon, J.P. 1999: 23). Having the access to the network is becoming a must in terms of good functioning in the public life. It refers not only to private people, so owners of computers with the Internet access, mobile phones, smartphones, etc., but also companies, state and social institutions, which give the possibility of using the Internet in the workplace. In this context one can also discuss the general concept of e-offices, thanks to which such institutions can communicate with each other more easily, whereas clients and petitioners get an easier contact with companies and offices. E-consumers of modern services can experience convergence, so-called *place convergence* and technology convergence. There is a process of blurring the boundaries between workplace and house. Digital, internet software is used for creative work as well as management of this work and its control.

2. Process of technological convergence in a Polish e-consume life

Digital technology is present in many different fields of economy, which makes the technology in various fields related, which in turns makes the solutions convergence. The solutions convergence is based on unifying the methods of access to network, processes, services and applications (Białobłocki and Moroz 2006: 4). The companies that have the technological advantage enter many different fields in order to exploit them. Those are both the planes of activities that were not in existence before and the new ways of using and joining previous goods and services. The new areas appearing as a result of scientific research and through the division of the areas already existing are established and developed by the companies that work in related sectors. The development of each of those fields depends on and at the same time is the condition of the development of the other one. Their mutual integration facilitates the appearing of completely new goods and markets or it causes the complete change of rules and principles of conduct on the existing markets (Pierścionek 2000: 26). Along with the process of digitalizing and converging of the devices and networks there is most of all convergence of services. The Internet business belongs to the most dynamically developing sectors of national economy in the recent years, but it has also become a new way of providing services, among others in administrative, medical, educational, trade, financial services, tourism, insurance, culture and others. The commonly used by consumers convergences of services of access to the information enable higher standardization and e-clients service. Technological convergence, for example within the field of communication networks enables the companies, e-clients to, f.e. increase business flexibility, reduce costs, increase competence advantage, unify the computer environment, integrate the data, facilitate the management of the systems, simplify the process of service, reduce the time of goods delivery and services for clients, reduce the time and frequency of business workshops, and in case of the necessity of being in touch with the clients- makes it possible to provide services through many channels of contact with company staff, for instance via mail, Skype or GG communicator. Literature points out three stages of the

process of establishing information society. The first stage describes the emergence of companies and corporations that establish new ICT technologies, the second one refers to computerization of the basic sectors of economy and the last one characterizes wide use the new technologies in daily lives (Dąbrowska *et al.* 2009: 8). The rapid development of ICT networks and progress in this area made it possible for new companies that before were deprived of such a possibility to join the world economic system. By the means of a mobile phone, facsimile, and the Internet in particular there are more and more trade transactions made. E-services make it possible to perform economical acts efficiently and also enable the more flexible functioning of the companies, focus on creating new products and services, which in turn will generate profits. The reflection of such development of the technological process is creating the information society. It results in each member of the information society gaining the access to a wide range of resources offered in the network related to goods and consumer services (Grubicka 2012a: 17). E-business takes advantage of a number of Internet applications, where one can point out mail, websites as well as banners and other means of advertising to name but a few. Everything is aimed at one target, which is addressing possibly the largest group of potential clients and recipients. The concept of e-business includes e-commerce, but apart from it also encompasses the internal processes such as production, supplies management, product development, risk management, finances and management of knowledge and human resources. The strategy of e-business is aimed at saving costs and the improvement of effectiveness and production. It leads to the situation where the virtual form of providing services gives more possibilities of choice, and in turn on-line shopping. Nowadays offering the on-line services is the most advanced model of providing services in UE, with Poland being one of e-business leaders in Middle-Eastern Europe.

3. Level of consumer awareness contra consumer's sense of safety

The awareness of the existence of the information and e-services provided in an electronic way and the ability to use them are indispensable for the development of the information society and at the same time for the functioning of a human as a full-fledged member of the information society. According to the report by Forrester Research "European Online Retail Forecast: 2011 to 2016", sale in on-line shops in 17 main European markets will increase from € 96,706 million in 2011 to € 171,957 million in 2016. The yearly rate of sale will be 12,2%. Like in other European countries the value of Polish e-commerce market is rising dynamically year by year. There is still a growing number of internet shops in Poland. At the moment there are 11 thousand of them. Also, group shopping, which is now an important branch of e-commerce market, is gaining in popularity. The rationality of activities of Polish e-consumers is present when trying to buy the goods that are cheap and of good quality. The findings of Forrester Research show that the main reasons for which the consumers buy by in the Internet is time saving (69%) and the possibility to find the best possible offers (68%). Equally important for the consumers in the net is a wider than in traditional shops range of services and products. Moreover, 31% of the questioned claimed to follow the websites of on-line sellers so as to keep up to date with the latest trends.

What is the most important for every third Polish e-consumer while doing shopping different than daily groceries, is saving money. Also, one in three tries to buy the goods of the highest quality. One in four pointed out the convenience of on-line shopping as well as lack of time limits in terms of shop opening hours. Every sixth respondent stresses the fact that shopping in the Internet is more thought-over and that he does not buy on impulse (Wolny 2011: 28). The advantages of on-line shopping mentioned by Polish e-consumers include a wide range of goods. The buyer, having a great choice of the goods and brands available in the Internet, before buying looks for the information about the offer of interest to him. The most searched pieces of information available in the Internet are: price of products, technical data. E-buyer (Kolny *et al.* 2011: 21) looks for the information about the offers of different producers, promotions and the newest products, checks the time of realization of the order and reliability of the seller. Quite often the process of looking for the information does not finish the moment one finds the necessary information, the vast majority of consumers look for the same piece of information in many sources and compares it. The information about offer and the conditions of its purchasing can be available in various sources. The consumer looking for information can use traditional and internet sources. Traditional sources of market information are: family and friends, shop assistants in traditional shops, shop leaflets, package and advertisements. The internet sources of product information are: producers' and sellers' websites, internet advertisements as well as industry forums. To sum up: e-consumer values time, choice and convenience most of all. It is worth paying attention to the fact, though, that a meaningful aspect that is behind such preferences can be not only rationalism,

but also some kind of force reflecting the pressure of vital micro-economic and psychological factors. The most important factor seems to be the stress connected with a common uncertainty of employment (Matuska 2011:25), which is of key importance for the pattern of behavior of a consumer employee. E-consumer is most often an employee as well (apart from the meaningful group of representatives of the learning youth among e-consumers) who has no time for traditional shopping, whereas on-line shopping can be done during the break while working at the computer. Among new psychosocial risks of work in the research by ESENER (European Agency for Safety and Health at Work) the first places are taken by stressor of time pressure (52% of indications) and the stressor of contacts with difficult consumers (48% of indications). Perceived in that way e-shopping can be a form of defensive reaction to work related stress whereas surfing through the Internet shops during working hours can be a new symptom of professional burnout connected with stress at work (Matuska and Figurska 2010:25) or even a new type of defensive mechanism appearing in the form of e-shopaholism. These days, when the value of information is growing all the time, its safety is becoming a more and more common concept. Information is mostly associated with institutions but in fact it touches each of us- a potential user of the Internet (Benkler 2008:1). The growing importance of information causes the increase in their threats, which is why the protection of ICT systems and information processed there is the issue of utmost importance. One of categories of the safety of information is the safety of human resources (Białas 2006: 2). According to L. Ciborowski (1999: 6) safety of information is “information protection that is based on enabling and obstruction of getting the data of a physical nature of actual and planned condition of things and phenomena in its own space of functioning and obstructing the input of informative entropy to the announcements and physical destruction of media data”. While doing shopping in the Internet shops we are forced to give our personal data in order to get an ordered product. The barrier for the development of e-market for the consumers apart from the Internet access is becoming lack of transaction safety. While shopping we reveal a great deal about our financial status, preferences, psychological profile. Our data, stored in the database of the internet shops, is incredibly valuable to any kind of advertising agency, competitive shops or it can be used by criminals in order to find potential wealthier victims, make extortions etc. The problem of safety, in any area, is subject to some certain laws. One can distinguish some truisms valid while designing and implementing security. One of such truisms is that there is no absolute safety. We are never able to predict in advance all the possible threats. The rapid development of information technologies implies appearance of still new threats. Nowadays computers realize a great number of activities that up till now have been humans’ domain. They do that more quickly and more accurately. However, the imperfections of technology and security policy configuration pose the danger of underdeveloped in terms of safety and reliability of the IT product or its misuse (Grubicka 2011: 15). Safety is often called the trustworthiness of the computer system, which can be described as trustworthy when it is:

- available- accessible up to date
- reliable- resistant to disorders
- secure- ensuring protection of data
- safe for the surrounding, eco-friendly.

The problem of safety in modern civilization influences versatility of computer technology. There is a number of threats, though the weakest link in the information safety is a human being (Grubicka 2011: 15). The easiest attack in cyberspace can be based on direct attacking the software in a given computer preventing its proper functioning; or the computer itself and causing lasting damage of its parts. Attacks for the data being of state or professional secret are aimed at taking the control over protected systems. Strengthening the protection of the system in terms of protecting critical infrastructure is a postulate to build stronger protection barriers in the cyberspace and physical sense. In the first case the most common way is using the passwords. Application and use of disposable passwords is a protection against its capturing and unauthorized usage in the future. Nowadays, in order to authenticate the users, one can take advantage the things which must be shown when being notarized. Those are, for example, magnetic cards, electronic cards or USB tokens. Moreover, in case of the people, one can take advantage of one’s physical features owing to dissimilarity of natural parameters of body elements, biometric authentication, such as, among others: DNA key, palm thermogram, palmprint, hand signature, voice (Grubicka 2011: 12). Other possible ways are firewalls and proxy servers. Physical barriers can be used in a number of ways: starting with protecting devices against electronic impulses and finishing with mere cutting the wires. Another possible precaution is internal fragmentation aimed at limiting possible damages and getting the possibility of quicker repair after a potential attack (Goodman 2008: 12). Creating backup copies of different versions of information in case of

damaging the information enables quick restoration of functioning the system. A potential cybercriminal gets the access to the network forcing acceptance of his/her IP address as the network address, pretending to be a user of the real main computer. Using the program of sniffers type, which after being installed in the network that has been hacked, they get the information moving within this area, and the chosen pieces of it are copied on the attacker's disc. Thanks to programs of sniffers type one can get a lot of valuable information such as personal data, password access and much more. Another threat called Spoofing- forging IP addresses, is aimed at pretending to be the server in the existing network connection, that multiplies its damages even those apparently less dangerous threats (Tadeusiewicz 2008: 27). The technique is to avoid securities which are installed in a given server the administrators of the intranet as well as "impersonating" the network user, which enables the attacker to capture all the data that was supposed to get to the real computer. In accordance with the claim of one of the leading specialists in the area of IT safety, Bruce Schneier, *Safety is the process, not a product....* Providing safety is not safety. Providing safety is not an easy task and requires constant work, planning and educating the users, which is not doable in each and every environment. Most of all, with no understanding of the scale and consequences of the potential threat one cannot talk about elaborating on an efficient strategy of fighting illegal cybercrime. An effective tool of control and improvement of the precautions implemented in the company is safety audit. Safety information audit is an independent and reliable assessment of the security status of all the areas of company activities, and more specifically it is the assessment of its accordance with normative documents. Thus, managing information safety requires compiling effective methods of preventing and fighting cybercrime and it should be an indispensable, incessant and systematic process of creating the policy of information safety and current updating the protection policy. It is a field bordering IT, law, marketing and organization, dealing with defining aspects of safety for institutions and their ICT systems, its achievements maintenance (Białas 2001: 2). Inefficient, invalid or inadequate principles, rules and mechanisms of protection are the meaningful threat as they give an illusionary sense of safety.

The basic document describing the safety policy is the ISO/IEC Technical Report 13335 norm. In Poland Polish norm PN-I-13335-1 is valid¹. In this norm there are, among others, all the possible definitions of safety as well as the aims of computer systems safety policy. The norm is a multi-part document which encompasses the following concepts:

TR 13335-1 terminology and models

TR 13335-2 methodology of planning and conducting the risk analysis, specification of requirements of workplaces connected with ICT safety systems

TR 13335-3 techniques of managing safety

- managing the information protection
- managing IT systems configuration
- managing the changes

TR 13335-4 methodology of security selection

WD 13335-5 security of connection with external networks. The basics of system solutions in terms of information safety in the world scale is the British BS 7799 norm. The norm was filed by BSI ² to International Norm Organization as the basics to establish an international standard of managing information safety. It was given the ISO/IEC17799 number, adapted as well as the Polish norm PN ISO/IEC 17799. When implementing this system of information safety in the company or administrative unit two norms are used most often:

-PN ISO/IEC 17799:2007 – Information Techniques- Safety Techniques. Practical rules of managing information safety;

-PN ISO/IEC 27001:2007- Information Techniques - Safety Techniques- Systems of managing information safety
- Requirements

According to the standard imposed by norm PN-ISO/IEC 17799, the basic attributes of safety of the information are confidentiality defined as the possibility to restrict the access to the information to only authorized people.

¹ Act 28.01.1999 r.; Title: „Technika informatyczna – Wytyczne do zarządzania bezpieczeństwem systemów informatycznych – Pojęcia i modele bezpieczeństwa systemów informatycznych IDT ISO/IEC Tr13335”

² British standards Institute – the oldest in the world unit considered to be a leading institution in terms of normalization and certification

Integrity is defined as the providing the completeness and accuracy of the information and the methods of its processing in order to prevent such modification of the data which could lead to its change or damage by unauthorized people. Availability is the possibility to guarantee that authorized people always have the access to suitable information whenever it is necessary (Białas 2006: 2). Standard ISO/IEC 17799 includes also descriptions of securities which should be applied in order to reduce the risk of losing the information. It is, among others, safety policy, safety organization, personal safety, management of systems and networks. Norm PN ISO/IEC 27001 is the basics to certify systems of management safety information. The norm in a complex way comprises all the concepts connected with managing information safety in a company, and within that physical, ITC and legal safety. Norm PN ISO/IEC 27001 is the component of the series of norms 27000. Their aim is to unify previous developments and standards devoted to safety of information. Strengthening the protection system in the area of critical infrastructure protection is a postulate to build stronger protection barriers in the cybernetic and physical sense. In the first case the most common is applying the system of passwords. Other possible ways are firewalls and proxy servers. Physical barriers can be used in a number of ways: starting with protecting the devices against electronic impulses and finishing with mere cutting off the wires. Another possible precaution is integral fragmentation that is aimed at reducing any possible damages and getting the possibility of quicker restoring after a possible attack (Goodman *et al.* 2007: 12). Making backup copies of the information versions in case of damage will enable the quick restoration of the functioning of the system.

Creating the Safety Policy should include the following stages:

- assessment of the information processed in the information system,
- classifying the value of gathered and processed information
- defining the appropriate directions of the information flow in the area of an administrative unit
- development of the information protection adapted to the peculiar information system
- development of the safety norms
- implementing Safety Policy
- development and protection of the Safety Policy.

The appropriate management of resources, including information resources, especially in the aspect of information safety requires the right identification of those resources as well as defining the place and way of its storing. The choice of the appropriate for the specific resources methods of management of its protection and distribution depends on the applied information carriers, type of applied devices, computer equipment and its software (Grubicka 2012b: 114). One can distinguish two leading strategies of information systems protection. The first, traditional one is based on risk analysis. Risk analysis identifies the areas of information system where it is required to introduce precautions. The precautions should be used first of all to protect the resources of the greatest value, which most often are the data and such resources that are at great risk and that are risk-prone. Conducting the risk analysis, alongside with allocating the appropriate priorities to a number of threats that could possibly influence the information system one should also carry out the suitable documentation in the form of risk analysis form. The risk analysis form should include such pieces of information as risk description, its potential consequence, assessed cost of eliminating the consequence, probability of its occurrence, description of precaution activities and the cost of securities. Another strategy is of more practical character. It derives from the assumption that abuse of safety in the information systems are inevitable (for example viruses attacks, hacking) and one must be prepared to handle it (Grubicka and Motyka 2011: 15). It is recommended to use security packets that include both antivirus protection as well as additional protection modules: anti-spam, antispysware/anti-adware, anti-phishing, heuristic and behavioral analysis as well as firewall and Web Filtering (limiting access to undesired WWW websites). Firewall, software system and device protection of the computer linked to the network make remote logging impossible and give information about its users and the resources of the whole station. Apart from that there are also the functions of automatic critical backups of data or blocking the access of a user to some designated resources, for example applications, files and services. The used precautions should be chosen while keeping in mind the profile of a unit, its competences and the position of the user, as well as the fact whether the computer is a desktop or a laptop. Each working station should have an antivirus application installed that would comprise the modules protecting both against the known viruses, Trojans, worms or threats of spyware type as well as heuristic and behavioral analysis that can provide safety against unknown threats. The gate scanning the Internet movement does not protect particular working stations against a mean code brought on a CD or another mobile information carrier. As burglary protection one can also use different kinds of security software. There are many programs and software

techniques of protecting the equipment. One of such software is Open Source program Prey, which not only protects the data but also a mobile computer against theft. Such an application, available for Windows, MacOS, Linux or Android platforms, send a report to a given e-mail address. In a prepared by the application report there is the following information: IP number at which a thief was logged on, the number of wireless networks in the vicinity, recently browsed Internet pages and a photo of a thief taken by an installed Webcam. All this information can help retrieve the stolen equipment. Thus, the development of legal infrastructure related to electronic transactions is a must. The popularizing of the Internet and directly connected with that electronic trade resulted in recent appearance of a number of legal issues previously unknown to the traditional legal system. While looking for causes of such a situation one can point out for example lack of general understanding in terms formal-legal definition of crime activity and types of behaviors supposed to be of crime character; different responsibilities of law enforcement and judiciary system to undertake trial activities connected with the access to computer systems and securing computer data as the evidence; maladjustment in particular countries procedure regulations connected with prosecution of computer crimes. Since that time there have appeared new technological and legal solutions, the level of revealing law violation committed by the usage of the computer or in ITC network has increased significantly, yet there is still visible lack of cooperation and heterogeneous state of regulations related to this type of crime in different countries, and the criminals avoid responsibility.

Unifying the law is indispensable everywhere where one deals with global network. Many countries introduce into the valid legal system regulations defining responsibilities for unauthorized access to computer data, where computer data is a wide expression encompassing digital data stored or processed by the means of either only one computer or a number of devices connected in one network or sent by the means of ITC network. Nowadays legal regulations related to the Internet are the most dynamically developing legal field and should be created at the national and international level. Global computer network enables exchange of data in the process of communication and making trade deals with clients (Dolińska 2010: 10). However, closing contracts in the Internet is connected with a number of threats for the interests of both parties of the deal, though especially for the consumer. Contracts made by the means of the Internet websites, internet shops, e-mail or other means of electronic communication belong to so called- distance sale contracts. As a result, the Internet caused the introduction of new legal regulations providing network users, especially e-consumers, with safety. A number of crimes that are particularly connected with illegal business in the Internet have been recognized. Those are for example:

- on-line financial services: share purchase, offers to gamble virtually or invitations to virtual casinos, money laundering in the form of cyberlaundering, frauds on auction portals, stocks and shares manipulation, documents forging, extortion and money theft, inaccurate documentation,
- wiretapping and surveillance, taking over electronic mail or blocking the account, hacking, phishing- getting PIN and credit card number captiously, which means confidential data by impersonating a trustworthy person or institution;
- cash-machine skimming- illegal card copying and withdrawing money by unauthorized people
- theft identity- by taking over the access to the account the criminal knows all the client's personal data, takes over his/her passwords, can look into financial operations, credit cards data, pension schemes, investments, insurances etc.
- dishonest competition and economic spying
- purchase over-the-counter medicines from the foreign countries in the country where it is illegal or where the procedure of admission the medicine to a given market is not over yet or mere fakes, etc. (Filipkowski 2007: 11).

The key condition of development and increase of e-services popularity is maintaining the social safety audit among potential consumers. These issues should be based on the user's sense of security (Dąbrowska *et al.* 2009: 8), which means lack of fear of illegal usage of personal data. Technical and organizational means indispensable to provide the processed data with confidentiality and integrity at the same time secure accountability of the number of activities causing the processing of personal data. The applied technical and organizational means indispensable to provide the processed data with confidentiality and integrity of the processed data must be adequate to the threats resulting from the ways as well the category of processed personal data (Grubicka and Motyka 2011: 15). These means should provide accountability of any activities, both in case of people and the systems undertaken in order to process the personal data. The evolution of threats is connected with the race of the attackers and defenders. Another significant reason of impossibility of reaching 100% security is human weakness,

in particularly fallibility of designers, programmers, information system users which result in mistakes in system and application software and inappropriate and irresponsible usage. For e-consumers only those companies are trustworthy which on their sites put a complete regulations of purchases and with which one can contact by the means of phone. The reliability of the shop increases if it allows various forms of paying, it has esthetic and functional design and allows a personal pick-up of the ordered goods. In the light of the above reflections it is important to create the climate of trust of the consumer to e-shopping.

Conclusions

Convergence is not something spontaneous, it is the effect of human activities, decisions, goal setting, and evaluation of the effects. The phenomenon of convergence means a serious challenge for traditional business models, but it is also a threat to companies which will not manage to use convergence and will stay behind in the competitive race. Only educated and able to absorb the knowledge societies can efficiently build modern, competitive economy and at the same time participate in the effects, improvements of the conditions of functioning European market raising its competitiveness in comparison to other regions in the world. Antoine de Saint-Exupery words can serve as the motto here “*Those who are threatened by the technology development cannot distinguish between objectives and measures. Those who fight hoping to gain only materialistic goods will gain nothing worth living for*”. Nevertheless, there is still a need for a number of activities- popularizing and arranging the knowledge on ITC safety, analyzing the importance of different aspects of the issue for the national safety, developing a unified model of activities with a view to increasing all the key systems for the countries, increasing cooperation with the private sector and also establishing and practicing schemes of activities that clearly define the competences of institutions and national services in crisis situations. It is in the interest of the country, as well as within its duties, to care about meeting the highest standards of protection. The cooperation between national and private subjects should be of subsidiary character, and in case of attack it is only a coordinated action that can prevent or significantly reduce the losses (Goodman *et al.* 2007: 12). Yet, it shouldn't be forgotten that progressive convergence imposes the revision of legal regulations, which creates indispensable aspect of trust to the institution offering the service motivated by the possibility of legal execution of the responsibility for potential damages connected with using a specific service.

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PECULIARITIES OF YOUNG SPECIALISTS ON LABOUR MARKET: CASE OF LATVIA

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Abstract. The youth unemployment issue is topical for European countries. The authors would like to outline what kind of risks Latvia can meet in different sectors of economy focusing on the public sector. Authors summaries published experts reflections on the situation on Latvian labour market, analyse statistical data, use Latvian economically active youth (high schools students and young specialist with higher education aged from 18 until 24). The hypothesis is Latvian young specialists are mostly attracted by service private sector organisations as employers rather than the public sector organisations.

Keywords: Youth Unemployment, Public Sector, Generation Y

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1. Introduction

European young specialists are under the examination in various fields of science. Physiologists, anthropologists, psychologists, sociologists, economists and other scientists try to define peculiarities of the generations. From the economy and management point of view, it is important to examine and evaluate young specialists as employers and job seekers. Definition of the young specialists' behaviour on the labour market and in organisations, their interaction with their potential and actual employers is a significant activity to make any decision on youth employment.

The youth unemployment issue is topical for European countries. The authors would like to outline what kind of risks Latvia can meet in different sectors of economy. The authors observe challenges in different sectors of economy focusing particularly on the public sector. Previous the authors' analysis showed that there are public sector organisations that employees' average age is above 45-50 years. Public sector organisations are weak in attracting young specialists (Voronchuk, Starineca 2014); therefore, it is reasonable to provide help to these organisations to reduce a risk of local specialists' lack. For instance German 'graduates with better networks are more likely to find a job and less likely to migrate' (Krabelab, Flöthera 2012; Fratesi 2014). This conclusion shows the perspective on the further action of public organisations, where communication with young employees has a

key role. One of the risks also outlined in the quote is migration. If the local employers do not attract young specialists, they can find a job abroad, as the majority of them are skilled and educated enough (Viņķele 2013) for the modern international or at least European labour market requirements.

The objective of this article is to define possible risks on Latvian labour market connected to the Latvian young specialists' peculiarities. Authors summaries published experts reflections on the situation on Latvian labour market, analyse statistic data, use Latvian economically active youth. The hypothesis set by the authors is Latvian young specialists are mostly attracted by service private sector organisations as employers rather than the public sector organisations. The authors also describe the difficulties that appeared trying to test the defined hypothesis.

2. Previous research

Many researchers are devoted to the youth unemployment issues around the world. "The problem seems fierce not only because jobless youth is expensive for the society – EUR 153 billion or 1.2% of the GDP in the EU in 2011 – but also because it affects the future of it" (Artner 2013; Bilevičienė, Bilevičiūtė 2015). The youngest generation should be motivated and respect the country that provides them job in terms of being fear further on paying taxes that is an important part of the economy. For instance on the South Asia the industrial structure whether public or private is in shambles thereby failing to absorb a big chunk of educated youth of the state. Due to weak or no private sector, the educated unemployed youth of the state have cloned themselves only towards government sector which is already disguised and seems to have reached a point of saturation in terms of absorption of educated manpower (Khan 2014). In Europe, there is another problem. The majority of the young people are professionally educated or getting the higher education (Central Statistical Bureau of Latvia 2014 a,b,c,d).

In some cases, the educational system where main focus is given on theory rather than on practical knowledge (Sofi, Yasmin 2011; Išoraitė 2013; Tarabkova 2014) can cause the young specialists with higher education incompetence on the labour market. One more important aspect that needs to be outlined is generation Y specialists' lack of job experience (Vargas 2013; Dzemyda, Raudeliūnienė 2014; Tarabkova 2014). Often organisations need a competent and experienced specialist right now, they are not ready, they do not want and they do not have time to mentor new young and inexperienced employee.

Youth in the labour market is quite vulnerable category; the issues of providing effective employment that are matters of public policy. Of course, the decision of this problem is impeded in the social, economic, legal and political spheres of our live, so the appropriate measures should be adopted correspondingly (Grigoryeva 2012). To evaluate youth unemployment from the economy and economics point of view the statistical data and economic indexes are the main sources of information. Sometimes statistical data providers can neglect or have unexplainable range of data. 'In almost all instances, the unemployment rate for teenagers (aged 15 or 16 years to 19 years) is consistently higher than that for 20- to 24-year-old' (Grigoryeva 2012). Some scientists use an age range of 18-34 years to study youth unemployment. However, they split unemployment data to two groups: people under 25 and over 25 (Cinalli, Giugni 2013). Sometimes there are simply not the most suitable, relevant and correct data for the appropriate analysis of the youth unemployment.

Collecting necessary data scientists may use surveys. To survey educated unemployed youth usually scientists (Sofi, Yasmin 2011) implemented random sampling method or secondary analyses of quantitative data that is obtained from the WEB pages of the organisations (Grigoryeva 2012). The respondents on the survey by Sofi and Yasmin (2011) were contacted in their respective homes. Youth unemployment has been evaluated also from the policies point of view. 'Youth unemployment has been taken into account by EU institutions since the last decade, and different initiative have been adopted to tackle this serious societal problem.' One of the conclusions of this research is "because of the incremental dynamics of policymaking and the differing preferences of European institutions, member states, social partners and social NGOs, there is still no well-defined youth unemployment policy model at EU level" (Lahusen *et al.* 2013).

Some countries such as Latvia are active on entrepreneurship culture creation to stimulate young people establish work places either for themselves, and to create new job places for other unemployed people.

Entrepreneurship gives youth a sense of ownership and participation in economic (Ali 2014). However, not all new established enterprises provide jobs according to the demand. The by Investment and Development Agency of Latvia studied the many organisations from the foreign investors' perspective. They found out that in terms of Latvian aging society, the cluster of some specialist are also aging. Already now, there is a lack of specialists in Latvia in such areas as (Studente 2014):

- Green technologies
- Health care
- IT global business
- Life Sciences
- Metalworking, mechanical engineering and electronics
- Transport and logistics
- Treatment of foods and some other.

Some areas are under the risk that on the nearest future there will not be any young specialist, who can replace the retired ones in various fields. Latvia and many other countries are moving to the knowledge economy and we might have employment problems. The labour market offer and demand often do not match. The decision might go from the analysis of the complex factors that may include political, economic, and social and education aspects.

3. Methods / Theoretical Framework

The authors describe the framework and methods used to design their empirical study. The main aspect of the theoretical framework is Generation Y approach. The authors also describe the content and structure of the questionnaire for the survey as well as its implementation limitations.

3.1. Generation Y employees and job seekers

The majority of publications available in English devoted to the generation Y (Millennials) are from the periodicals. Private organisation's and private and public enterprises' managers usually are the target audience of these articles. Their objection is to give tips and suggestion on how to communicate or establish relationship with youngest generation of employees. The idea that 'organizations have a responsibility to help managers understand how workers' expectations have changed and how they can adapt their leadership style to these new conditions' (Bawany 2014) can substantiated this objection. The Generation Y includes in large number of today's youths (Bawany 2014), therefore, it is important being aware of some peculiarities of young specialists as generation Y representatives.

Generation Y or Millennials are usually defined as people born from 1980 till 2000 (Martin 2001; Sheahan 2006; Matthewman 2011; Ārste-Avotiņa, Lieģis 2013; Hills *et al.* 2013) Previous researches on the generation Y as job seekers and employers' stakeholders showed that Latvian young specialists have their requirements to the potential and current employees. They are asking for high their input and work performance evaluation, attractive working environment, attention and recognition as well as professional development opportunities (Starņeca 2014). Sean Conrad (2009) gives the same characteristics of young engineers. He outlines that young specialists are recent graduates therefore they do not have enough experience in a field that requires providing mentoring and feedback activities for them. In addition, they evaluate E-Systems used by their potential employers. The most important common topic that they are interested during the selection interviews are: performance management, professional development, and performance assessment (Conrad 2009).

The most frequently outlined topics crucial for generation Y employees and job seekers in the observed by the authors' articles are (Conrad 2009; Ware 2014; Duff 2009; Ferri-Reed 2013; Hills *et al.* 2013):

- Adaptation to their interests and values
- Automating of operational and management processes
- Career path
- Challenging working environment
- Information Technologies (IT) usage
- Mentoring for new employees

- Performance assessment system
- Professional development opportunities, etc.

Meaning of the generation y young employees is essential. They are striving for professional development and fast career growth. They are open for new knowledge and experience, it is important for them to be evaluated and awarded as well as quite, if the employer does not meet their values and requirements. In addition, they like to use IT for each working and learning process to ensure its fast fulfilment. Learning process of the young generation becomes easier because of the helpful developed of technologies. They are also fast learners and curious people. They are striving for getting educated informally or formally entering higher education institutions. Not only technological approaches influence this generation Y representatives, but also other factors. They are accustomed to e-communication. Generation Y employees easily use e-learning opportunities and like rather interactive training than formal lectures (Tyler 2008). They love freedom and responsibility, expect consistent and positive feedback, and use technology transparently. This means instant, constant communication using “flat” hierarchies (Alexander 2014). They like to be a centre of an event, receive attention from employers’, managers’, and colleagues’ side.

The authors concluded that it could be easy to attract young specialists as any survey respondents, if the survey connected with them and issues that they care about. As this is the first generation to grow up completely within the age of the internet and have come to be known as digital natives (Camp 2014), it will be easier to reach them using e-communication tools or other Internet environment approaches. Recalling that they expect external recognition and approval (Camp 2014) as the survey respondents they would expect to receive any kind of benefit or at least recognition.

3.2. Knowledge economy concept

The knowledge economy as a term appeared about 1970. Peter Drucker (1992) wrote that the next society will be a knowledge society. Knowledge will be its key resource, and knowledge workers will be the dominant group in its workforce (Lingenfelter 2012). There is a tendency of number of people with higher education increase in Latvia. For the last seven years, the level of economic activity of the Latvian economically active inhabitants is around 82% (Central Statistical Bureau of Latvia 2014a). The authors outlines that knowledge-based economy includes several basic spheres. By White *et al.* (2012) knowledge-based economy is based on Open Innovation, Education, Knowledge Management, and Creativity. These components are set on information and communications technology infrastructure (Voronchuk, Starineca 2014a). The World Bank has a little bit different defined components of knowledge economy. Measuring knowledge of the countries, the World Bank presumes that knowledge economy is built on four pillars: Economic Incentive and Institutional Regime (EIR), Innovation and Technological Adoption, Education and Training, and Information and Communications Technologies (ICT) Infrastructure. The main variables groups (functional cuts) that the World Bank uses assessing knowledge are: Overall Performance of the Economy, Economic Incentive and Institutional regime (Economic Regime, Governance), The Innovation System, Education and Human resources (Education, Labour), ICT (The World Bank 2012).

The common criterion that counts considering knowledge economy by both practitioner and schoolers is education. Employment in the knowledge based economy is characterised by increasing demand for more highly-skilled workers (OECD 1996). Therefore, the having a higher education is a necessity nowadays in developed and developing countries that are on the way of transition to the knowledge-based economy. The authors use this approach to have an evidence of the study population correct definition. The authors examine not every Latvian young person rather only those that are striving for the higher education (students) or already have it (higher educational institutions’ graduates).

3.3. Empirical study’s difficulties

Population definition is based on the knowledge economy aspects, defined object of the study and international statistical norms as well as Latvian laws. The population of the research is defined as higher education institutions’

students and young specialist with higher education (1st and 2nd level professional higher education, bachelors, masters, doctors) in age from 18 until 24 years. Knowledge economy concept influenced a choice of young people in the population. Knowledge economy presumes the tendency of society to the knowledge including formal education. In Latvia at the beginning of the academic year 2013/2014 there were 89 671 students that is 4.43% of all Latvian inhabitants (Central Statistical Bureau of Latvia 2014b). 62.93% (56 430) of that students were young people in age from 18 till 24 years (Central Statistical Bureau of Latvia 2014a). From 1998 till 2013 344 236 students got qualification or degree. Despite of demographic and economic issues since 2002 the number of higher education institutions' graduates is about 20 thousands each year (Central Statistical Bureau of Latvia 2014d). It was important to include into the research population students and people with higher education assuming that some of them can be both students and higher education institutions' graduates.

The age framework of the population was defined according to some considerations (Fig. 1). According to the education system in Latvia young people can enter higher educational institution from the age 18 not 19 as the Cabinet of Ministers (2013) defines it, if a children went to school at age of six not seven as it is assumed. It is possible to enter school at age of six.

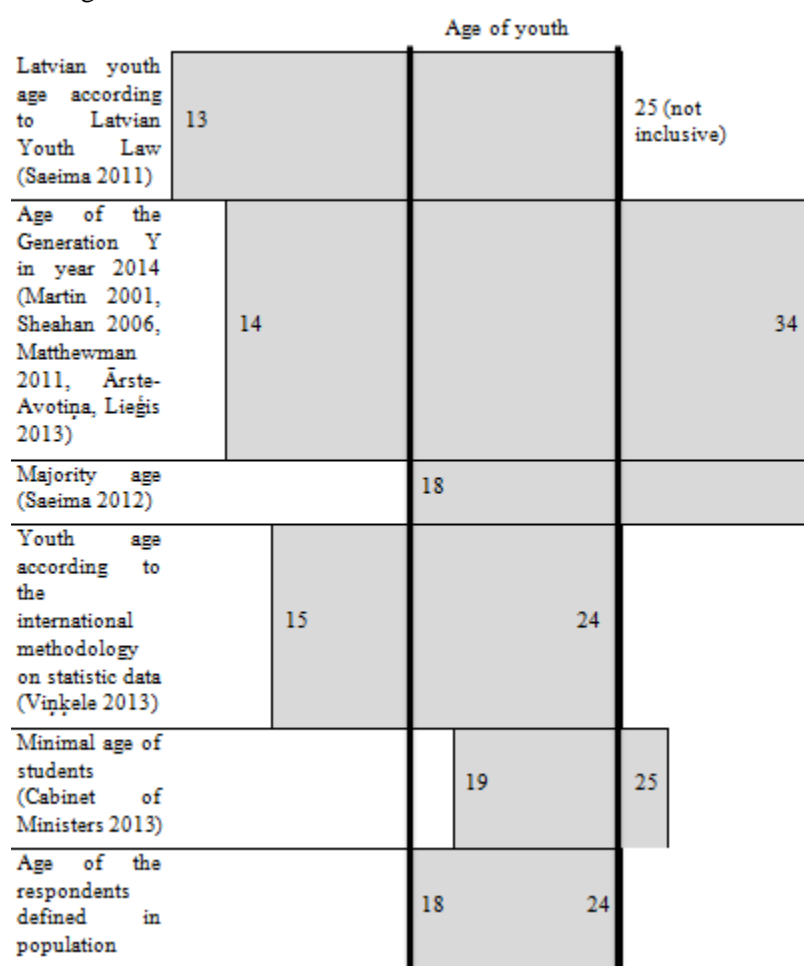


Fig.1. The research population's age framework

Source: Authors' created

According to the education system in Latvia young people can enter higher educational institution from the age 18 not 19 as the Cabinet of Ministers (2013) defines it, if a children went to school at age of six not seven as it is assumed. It is possible to enter school at age of six. International methodology of statistics presumes that young people are at the age from 15 until 24 years (Viņķele 2013). The authors highlight that this defined group do not represent the relevant and real situation, when presenting data about the youth employment. In addition, the Central

Statistical Bureau of Latvia (2014a) presents at their informative overview that young people under 18 are unemployed, because they are studying, that proves the Latvian society transition to the knowledge economy. Therefore, it is pointless to include youth younger than 18 years as they are not fully engaged into the labour market processes. The objective of the study also supports this consideration as the authors focus on students of higher education institutions and their graduates only. The youngest higher education institutions' students at the each educational level in Latvia can be at the age from 19 until 25.

Summing up all factors taken into consideration the authors defined the population by the age framework. The respondents of the survey should be at the age from 18 until 24 years. There are some challenges that the authors met. Wishing to reach the defined population the authors choose to calculate the sample of the research. The method of the sample is random. However, before the sample needs to be divided to the strata proportionally by gender, region and age. The first challenge is a lack of information. There are no data on the population by each criterion. It makes impossible even to calculate the sample. The next challenge is connected to the difficulty of reaching the defined population. Organisations that are dealing with data collection could not propose any methodologically correct approach to survey people from the defined population. They outlined that it can be possible only in long run, i.e., it can take several years to collect data. Otherwise, they can propose to use a local social network that does not cover justified sample from the defined population.

The most realistic approach to reach higher educational institutions' students is to approach them directly during the studies; however, it makes difficulty to reach the appropriate sample of the higher educational institutions' recent graduates. The next approach, which can be used to spread questionnaires among the Internet users as the probability that Latvian young people from the defined population are the Internet users are high. Besides, Latvian youth from the defined population represent the most technically savvy generation ever, millennials are already transforming the workplace through their extensive use of the Internet and social media for communication (Ferri-Reed 2013). The organisations that collect data have a possibility to spread questionnaires as pop-ups on several popular among Latvian inhabitants Internet sites. This process, however, is also time-consuming. Besides these challenges, of course there is one more aspect – financial one that triggers the process of data collection.

3.4. Questionnaire content and structure

The questions that the authors have formulated depend on the authors survey objectives. Further, the authors explain a role of each question from the questionnaire developed. The authors mainly would like to check the background of the respondents from the population to find out what kind of specialists are on the labour market. It will help to understand the risk of some industries that need to 'refresh' their staffs. The questionnaire begins the introduction that includes information on the reason to participate into the survey and the survey purpose, survey results further usage plans and terms, as well as clear instruction on the questionnaire filling in.

The first block of questions is about the respondents habits on searching for a job. This section helps to collect data that characterises Latvian youth from the set population as job seekers, inquiring some there as job seekers peculiarities. One of the first questions is about the aspects that are important for young Latvian job seekers with higher education choosing an employer from the three main aspects that have been already studied by the authors: Employer Brand, Social Responsibility, and Employers' Ratings (Voronchuk, Starineca 2014a,b,c; Starineca, Voronchuk 2014). All these three issues are interconnected. The respondent needs to assess each aspect using 10 points scale, where one is not absolutely important and 10 is important very much. A 10 points scale is used along the entire questionnaire, where the respondent needs to evaluate something by the importance.

The next question is on the regular (usual) sources that the respondents use searching for a job. The authors use check boxes to let the respondents select one or more options. The options are:

- Advertisements at university (e.g. on information desks, on WEB page)
- Job /career fairs/ job days (employers' exhibitions)
- Friends/relatives

- Job search engines on advertisements' portals (like cv.lv, cvmarket.lv, ss.lv, etc.)
- Organisations' doors open days
- Particular organisations' WEB pages
- State Employment Agency WEB page
- If other, the respondents are asked to specify.

The authors also ask the respondents additionally to point out, what kind of job search engines they use, if they checked that they use any, answering on the previous question. The next question is based on the previous the authors' studies results that highlight some aspects that usually are lacking in the Latvian public administrative organisations' job advertisements (Starineca 2014; Voronchuk, Starineca 2014a). The respondents need to assess, how different kind of information is important for them to consider applying for an offered position using 10 points scale. The answers on this question will help the authors to identify disadvantages of administrative public organisations' job advertisements, if they lack of any information that is highly important for the respondents. The last question in this section inquires, do the Latvian youth from the set population like to work for a private sector organisation or rather for one from the public sector. This is a multiple-choice question. This question's answers will reflect the Latvian youth orientation to the employers from the one particular sector currently.

The block of the personal information on the gender, age, place of living, occupation, and education background finish the questionnaire. The authors also clarify the field of study of the students from the sample and field of work of the employed students and graduates. This is a multiple-choice question. The answer's options are collected according the authors previous researches and or are based on the researchers and study results of other researchers or organisations mentioned before in this article. There are few questions for the currently employed respondents splitting them into two groups – who work on the position according to their professional background and who are working in the other sphere. One question requires answering, if the respondent would like to change his/her current working place. The scale proposed for the answering on this question is from undoubtable no, rather no, I have never thought about it before until rather yes, and undoubtable yes. It will help to check the Latvian generation Y employees' characteristics. It states in the scientific and popular-scientific literature that generation Y representatives are not loyal to their employees and easily change working places, if they are not satisfied with the current one. Therefore, the next question clarifies how the respondents are satisfied with the current employer. Answering on the question the respondents may use the assessment scale from undoubtable unsatisfied until satisfied very much.

There are also additional question for those, who are working with a public organisation. Here the authors inquire the motivation of the public sector organisations young employees to work for their employers (it is an open question that asks to mention at least two impetuses or reasons of the choice). The authors also check, if the respondents know about professional development and learning activities proposed by their employers and what kind of them are proposed, if any (e.g., external or internal seminars, workshops, training, etc.). It is a checkbox question. The authors also clarify, if this group of respondents have specific education on Public administration or any other. The questionnaire consist of fourteen sets of questions. The questionnaire is quite detailed and long for those, who are either a students, employees, and work for public organisation. Not all respondents need to answer all questions.

4. Results, discussion and limitations

The authors did not manage to carry out the survey planned. The challenges described before disturbed to reach the set objective of the study fully. The authors only summarised the overall studies results to define some possible risks on Latvian labour market that connected to the Latvian young specialists' peculiarities. The focus of the authors was a public sector. The authors mostly evaluated the challenges that public administrative organisations can have.

The authors could not check what kind of requirements Latvian young people from the defined population have to

their potential employers; evaluate their motivation to work for public organisations in Latvia; and inquire the main aspects that they pay attention on and that are important for them considering on application for a vacant position in an organisation. However the authors expect to have some form the list that was defined out of previous researches, (they are also included as a checkbox answers in the developed questionnaire):

- A room for creativity on the working place
- Benefits
- Career/Professional growth possibilities
- Challenging tasks
- Covered business trips
- Distant work possibilities
- Fast Career/Professional growth possibilities
- Flexible working hours
- Insurance
- Learning opportunities
- Personal working equipment with possibility to use them outside working hours (e.g. a smartphone, laptop, car, etc.)
- Professional development possibilities
- Salary
- Salary that partly depends on the working results
- Social and medical benefits
- Work in a multicultural environment.

The main risks that authors can already define are migration of the local educated workforce, a necessity to outsource some specialists from different areas. Lack of specialists in some areas causes a need of employees outsourcing or liaising (it is questionable, if Latvian organisations will be ready to attract specialists from abroad). There could be a risk that young specialists can manipulate some areas organisations. It arises a questions ‘Could they force it, won’t it arise a new macroeconomic challenges?’ Organisations could need to raise some costs on their employees that can influence many macroeconomical issues and cause the economy and economic instability again.

Conclusions

Sometimes data on youth unemployment is exaggerated or not proper enough to make the adequate conclusions. To solve the issue the separate researches should be carries out. Not always even state is interested in the detailed issues analysis. The essence of one problem could be a hidden and unexpected chain of other challenges caused by the negligent attitude or wrong activity towards the issue.

The authors have examined several previous studies on the topic from the methodological and contextual point of view. The authors also developed and adapted the questionnaire based on some previous considerations and researches results on the topic. Nevertheless, the authors did not manage to find financial support and implement the survey because of challenges on the proper survey implementation possibilities. The survey fulfilment requires many financial and time resources to ensure high quality of it.

The main conclusions that can make the authors are connected to the examined problem connection to the education system and traditions. Most probably in the nearest future higher education of young specialists needs to be more practical, e.g. devoting more time for learning on the working place. It can become more popular because of the employers requirements and youth peculiarities. Education required by the labour market most probably could become even broader not specific, so graduates from the one study program could work not only by their direct specialisation.

Generation Y employers can be characterised as not loyal to their employers, perceptive and greedy to new knowledge and experience, technologies driven, active and fast. The authors have a hypothesis that also Latvian generation Y young specialists have the same characteristics as other young specialists - generation Y

representatives described in the observed publications. Therefore, Latvian administrative public organisations most probably are not that attractive for the young specialists from the defined population that creates additional risk for them to have a lack of specialists in the nearest future.

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**LEADERSHIP AND SUSTAINABLE ENTREPRENEURSHIP: CLASSICAL APPROACHES AND
 CONTEMPORARY CONTEXTS**

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Abstract. The purpose of this research paper is to develop a theoretical framework of leadership behaviours and attributes which are unanimously endorsed. The model investigates a set of independent variables encompassing leadership behaviours. Leadership behaviours examined in this research include task oriented, charismatic, visionary, team oriented, servant leadership and authentic. The literature review examines prior research studies on various aspects of leadership dimensions. A theoretical model clarifying the significance and establishing justification of selection of the abovementioned leadership behaviours and prior support for universal endorsement for some of these dimensions e.g. Charismatic and Transformational leadership. Planned Methodology, measurement, empirical testing and application of the theoretical model is investigated where qualitative and quantitative approaches could be applied. A quantitative approach is employed to design a survey questionnaire to identify the appropriate conceptualisation of integrated leadership attributes and behaviour items. Higher Education, Banking, Insurance and telecommunication industries are potential industries that could be targeted and investigated in this research study. The competitive advantage of the theoretical model is characterised by the combination and integration of various characteristics and attributes of leadership which have elements of contradiction and consistency. The model argues that in spite of the divergence between different leadership attributes, they transcend national and organisational borders and maintain their importance in rather different contemporary contexts.

Keywords: Authentic leadership, service, influence, charisma, team dynamics, sustainable entrepreneurship

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1. Introduction

To succeed in today's global economy, multinational and transnational organisations need strong leadership that can transcend time, place, geography, race and all factors that belong to the global environment. The need for leadership has become inevitable in a world of globalisation and technology. The imperative to globalise is accelerating, and as businesses rely more and more on global strategies, there is requirement for a greater number of global leadership (Morrison 2000). Globalisation at industry, business, or individual level is concerned with

overcoming national differences and embracing the best practices around the world (Morrison 2000). Need for sustainable development raises need for leadership oriented to sustainable entrepreneurship, which in its turn is conditioned by many intertwined factors characteristic emerging in different contexts (Bhati, Manimala 2011; Laužikas, Mokšėckienė 2013; Wahl, Prause 2013; Litvaj, Poniščiaková 2014; Figurska 2014; Hoffmann, Prause 2015; Giessen 2015; Šimberová *et al.* 2015; Ignatavičius *et al.* 2015; Goyal, Sergi 2015; Endrijaitis, Alonderis 2015; Bilevičienė, Bilevičiūtė 2015; Smaliukienė 2014; Tvaronavičienė *et al.* 2014; Raudeliūnienė *et al.* 2014; Vasiliūnaitė 2014; Baikovs, Zariņš 2014; Balkienė 2013; Mačiulis, Tvaronavičienė 2013; Vosylius *et al.* 2013; Laužikas, Dailydaitė 2013; Fuschi and Tvaronavičienė 2014).

Nevertheless, globalisation remains major motivator for the search for universally endorsed leadership behaviours. The need for awareness and knowledge of effective managerial leadership behaviours which enhances visions and missions for the organisation, effective communication and team building for managers, has become an increasingly important discipline in organisational pure as well as practical research. Challenges associated with stressful work environment, information overload, technological advancement and connectivity, battle for analytical and managerial talent and increasing ethical dilemmas have been among important factors stimulating the need for effective managers, who acquire effective leadership qualities and behaviours that could transcend cultural, geographical, political, racial and national aspects. The purpose of this research paper is to develop a model of leadership behaviours and attributes which can be effective across cultures and organisations. The research suggests a theoretical framework investigating the effect of leadership behaviours and attributes on leader acceptance and leader effectiveness. The second section provides an overview on the prior literature on leadership behaviours, contingencies models, influence and relationships approaches to leadership, servant leadership and authentic leadership. The third section presents research conceptual framework of developed model of leadership effectiveness. The fourth section presents a set of research independent and dependent variables. The fifth section illustrates methodology design, questionnaire theoretical development, measurement scale, pilot test and reliability test constructed in the study. The sixth section presents research limitation and the seventh section presents research future recommendation.

2. Prior Research on Leadership

The Literature review is organised in two parts which are exploration of various contingency models of leadership behaviours, meaning and conceptualisation of a set leadership attributes.

Early studies explored leaders' behaviours at the purpose of learning the significant differences between traits and behaviours and means of understanding behavioural leadership styles and how they can be applied in different situations (Hersey and Blanchard 1982). A major study on leadership behaviours was constructed in Ohio State University by Stogdill and Coons (1957). The study identified two leadership behaviours under examination, which are initiating structure and consideration. Initiating structure describes the extent to which a leader is task oriented, and direct subordinates activities towards goal accomplishment. Consideration describes the extent to which a leader cares about subordinates and their emotional needs, exercises listening and establishes good relation and trust. University of Michigan also examined two leadership behavioural dimensions which corresponded to the Ohio State university study. A study constructed by Taylor and Bowers (1972) identified Job centred and employee centred dimensions of leadership. Also a study conducted by Blake and Mouton (1985) identified two behavioural dimensions which are concern for production and concern for people. The above-mentioned theories gave bases for task and relationship oriented leadership behaviours. Contingency theories of leadership also built on Behaviour leadership theories. In addition contingent factors including followers and situation were integrated in the study (Hersey and Blanchard 1982; Fiedler 1967)

Influence leadership theories can be characterised by the immergence and significance of charismatic, transformational and coalitional leadership (Daft 2011). This current research examines the nature and significance charismatic and transformational leaderships as dimensions of leadership. The development of leadership research realised by the evolution from behavioural theories which examined the behavioural aspects of the leader, to contingency theories which examined factors related to the organisational environment as the followers, task structure or formal position of the leader, then evolved to influence theories which investigated the personal

qualities of the leader, ability to influence and establish relationship rather than relying on contingency factors as formal position.

There is considerable literature on leadership in organisations which investigated the significance of visionary, charismatic and transformational leadership for organisational success and effectiveness (Tichy and Divanna 1986; Bennis and Nanus 1985; Cogan and Kanungo 1998; Yammarino *et al.* 1993; Kouses and Posner 1995; Cogan 1999).

According to Cogan and Kanungo (1998) vision in organisations is examined as second component which comprise charismatic leadership in organisations. Vision communicates an image of the future which is attractive and reliable and emphasise better situation than the present (Tichy and Divanna, 1986; Nanus 1992). Vision is defined as a set of idealized future goals developed by the leader which represent purpose and values shared by followers who embrace ideology of the leader (Strange and Mumford 2005; House 1999; Boal and Brynson 1988; Collins and Porras 1997; Ergeneli *et al.* 2007). Strange and Mumford (2002) distinguishes two styles of visionary leadership: ideological which emphasizes personal values and standards to be maintained; and charismatic which stresses social needs and change requirements. According to Zaccaro and Banks (2004) vision in organisations is predictor of business competitive advantage and strategic flexibility.

Kotter (1996) emphasizes the importance of developing vision and strategy and answers the question why vision is essential in organizations. Communicating vision, however, requires clarity, and simplicity of the message. According to Kelly (2000) organizational communication is defined as “the process by which information is exchanged and understood by two or more people, usually with the intent to motivate or influence behaviour” (p.92). According to Cogan and Kanungo (1998) a charismatic leader must engage in extraordinary acts that are perceived by followers as engaging in great personal risk, cost and energy. Also charismatic leaders are perceived to be knowledgeable and experts in their areas of influence.

According to Bass (1997) transformational leadership is universally effective across cultures. Global managers need universally valid leadership theories that could transcend cultures. Transformational leaders build a connection with their followers which motivates both followers and leaders through four dimensions of transformational leadership. They are idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Maslin-Wicks 2007; Bass 1985).

Bass (1998) distinguishes between authentic and pseudo-transformational leaders. Pseudo-transformational leaders utilize transformational methods but they lack the moral authority of authentic transformational leadership. Authentic transformational leaders advance progress through a common good and they achieve this aim through morally defensible means.

According to Yammarino *et al.* (1993) transformational leaders are more charismatic and inspiring in the eyes of their subordinates. Charismatic leaders have influence and inspire loyalty to the organization. According to Cogan and Kanungo (1998) a charismatic leader must engage in extraordinary acts that are perceived by followers as engaging in great personal risk, cost and energy. Also charismatic leaders are perceived to be knowledgeable and experts in their areas of influence. There is a distinction between influence leadership theories and team leadership. Team oriented leadership is dimension that is explored in the literature of leadership (Zaccaro *et al.* 2001; Salas *et al.* (1992, 2005) defines the concept of team as a distinguishable set of two or more people who interact, dynamically, interdependently and adaptively toward a common and valued goal, mission, specific roles and functions, who have limited life span of membership. A team is composed of some number of relatively independent individuals who are connected together in a work activity and each have their own needs, goals and expected outcomes that motivate their behaviour (Day *et al.* 2004; Tolle 1988; Salas *et al.* 1992, 2004; Cannon-Bowers *et al.* 1993). House *et al.* (2004) defines team-oriented leadership behaviour as a variable which emphasizes effective teambuilding and accomplishment of common goals among team members.

Whereas charismatic and transformational leadership theories emphasize relationships and personal qualities of leader, team leadership stress on building collective behaviour and identity and team effectiveness. The earlier

definitions and manifestations on transformational, visionary and charismatic leadership lead to the argument that these dimensions and attributes are not the same. According to Daft (2011) whereas transformational leadership seeks to increase follower engagement and empowerment, charismatic leadership typically demand both awe and submission of followers.

According to Greenleaf (1970) servant leadership is a human feeling with a tendency to serve, then a conscious choice that brings one to aspire to lead. Servant leaders put the needs of their subordinates before their needs and emphasise their efforts on helping subordinates to grow and reach their maximum potential achieving organisational and career success (Greenleaf 1977). Graham (1991) pointed out significant characteristics of servant leadership including humility, relational power, autonomy and relational development of followers. Spears (1995) identified ten traits of servant leadership which are listening, empathy, healing, awareness, persuasion, conceptualisation, foresight, stewardship, commitment to growth of people, and community building. Farling *et al.* (1999) designed a model of servant leadership where a process comprising of vision, service, credibility and influence are constructs under examination. Liden *et al.* (2008) examined the conceptualisation of operational definition of servant leadership as a construct identifying nine dimensions including emotional healing, creating value for the community, having conceptual skills, empowering others, helping subordinates to succeed, putting subordinates first, behaving ethically, relationship orientation and servant-hood. Mittal and Dorfman (2012) identified six dimensions of servant leadership including egalitarianism, moral integrity, empowering and developing others, empathy, humility and creating value for the community.

Avolio and Gardner (2005) presented a framework of authentic leadership where the research argues that through increased self-awareness, self-regulation and positive modelling authentic leaders create an impact on followers' authenticity. Authentic leaders are described as those individual who are deeply aware of their attitudes and are perceived by others as conscious of their own and others strengths, weakness, knowledge and values (Avolio *et al.* 2004).

Another distinction could be clarified between authentic leaders and visionary leaders, in the sense that whereas visionary leadership emphasise leader's ability of inspiring an ideal prediction of a future which is better than the current present, authentic leadership reflects on leader's self- awareness, integrity, truth with themselves and congruence between declared and actual attitude (Trilling 1972).

Whereas authentic leadership emphasises self-awareness in one's feelings understanding one's unique talents, strengths and values, charismatic leadership emphasise having an image of knowledge and expertise to achieve influence. However the question that could be posed here is how could a charismatic leader inspire fire that ignites followers' energy, inspire and motivate people to do more than they would normally do, despite obstacles and personal sacrifice, speak emotionally about putting themselves on the line, without having self-awareness, an internal moral perspective and authenticity? If the answer to this question implies that charismatic leader should possess all the latter characteristics one could then question what the significance of authentic leadership is. Avolio and Gardner (2005) answer such an argument by emphasizing that authentic leadership as an approach developing fully functioned and self-actualized individual.

3. Research Conceptual framework

The purpose of the research is to develop a theoretical model examining the effect of universal leadership behaviors and dimensions and social culture on leader acceptance and effectiveness. The model investigates an integrated theoretical framework of leadership behaviors that could be applied at a universal paradigm. The first stage of the theoretical model examines a set of outstanding leadership behaviors and dimensions. The model functions in a mechanism where the fulfilment of the previous level introduces to the importance of the next level. The model functions in a sequential mechanism where the first basic needs and components of leadership effectiveness is based on role perception and task orientation. Ability to demonstrate excellent role perception and clarify and task structure is the first component of leader ability and effectiveness. The satisfaction and fulfilment of task orientation will lead to need for effective communication to be exercised by the leader. Effective communication is the second level of the universal leadership effectiveness. It represents individual leader ability of creating a

common ground with followers and exercise advocating and persuasive behavior. The third level of leadership effectiveness model represents the significance of charismatic, visionary and transformational behavior. Charismatic leadership inspires the hearts of followers resulting in motivation and influence. Transformational leadership is also an influence component which has an impact on followers including inspiration, motivation, individual consideration and transformation. The influence component of leadership effectiveness emphasizes personal qualities of leader and relationship with followers. The fourth level of represents the importance of teambuilding, team collective identity for leadership effectiveness. Team oriented leadership behavior is an approach which stimulates a collective identity and behavior of the team. The fifth level of the theoretical model is service. Servant leadership as a component of the model stresses leader's modesty, humility and self-sacrifice. The final and top tier in this theoretical model is self-actualization (Figure 1). Authentic leadership addresses the minds of followers developing self-awareness and self-actualization. The theoretical model investigates creating balance between self enhancement and self-transcendence, internal as well as external approaches to leaders.

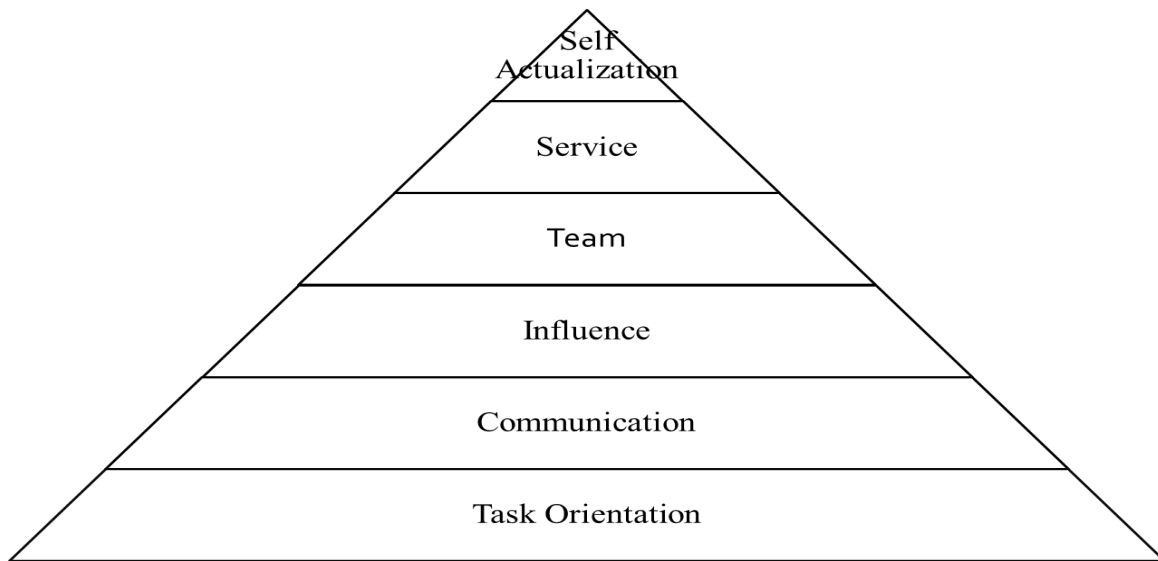


Fig.1. Developed Theoretical model of Universal Leadership Effectiveness Hierarchy

Source: author

The second stage of the theoretical framework inspect the outcome of the model which represented by leader acceptance and leader effectiveness. Development of leadership acceptance and effectiveness scales are needed in for the completion of the theoretical model.

Task oriented leadership reflects a leaders' ability to direct subordinate's work activities for the accomplishment of goals, ability to direct tasks, provide schedules and ability to achieve efficiency. Task oriented behaviour comprises subscales including (a) organising , (b) achievement oriented, (c) planning, (d) scheduling , (e) efficiency oriented, (f) monitoring.

Visionary leadership reflects leader's ability to inspire and motivate followers, establishing clear image of the task and what could be done better in the future of the organization. Visionary behaviour comprises subscales including (a) visionary, (b) future oriented, (c) performance oriented, (d) risk taker, (e) industry knowledgeable and (f) agent of change. Communicative leadership reflects the leader's ability to convey the message effectively, ability of being persuasive, clear about goals and objectives, and ability of being open and influential. Communicative leadership reflects subscales including (a) careful listener, (b) advocating, (c) clear, (d) persuasive, (e) stimulating and (f) open. Team-oriented leadership reflects ability and knowledge of teambuilding, establishing common purpose for team members and social collective identity for followers. Team oriented leadership behaviour comprises subscales including (a) team builder (b) collective (c) sensitive to team needs (d) gender egalitarian (e) role model (f) culturally aware of team background.

Charismatic leadership reflects leader ability to inspire follower and built a motivated workforce. Charismatic leaders speak emotionally and create an atmosphere of change. Charismatic leadership behaviors comprises subscales including (a) ideal, (b) creative, (c) influential, (d) inspirational, (e) challenging and (f) motivating. Servant Leadership reflects ability of building trust by selflessly serving others; stressing personal integrity and, sensitivity to the needs of stakeholders including larger society. Servant leadership behaviour comprises subscales including (a) just (b) sincere (c) humble (d) dependable (e) self-sacrificial.

Authentic leadership reflects leader's awareness of how they think and behave and are perceived by others as being aware of their own values, moral perspective, knowledge and strength as well as other people. Authentic leadership comprises subscales including (a) self-aware, (b) self-efficacy (c) confident (d) optimistic (e) ethical and (f) genuine.

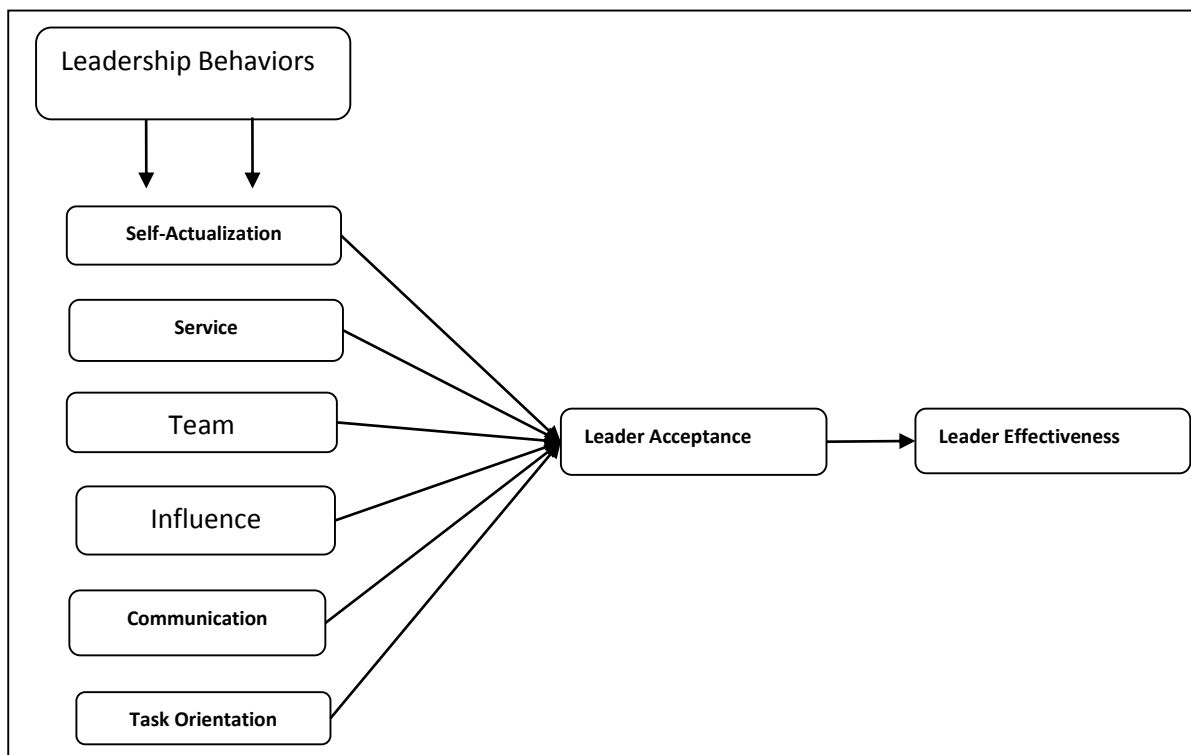


Fig.2. Developed Model of Universal Leadership Effectiveness

Source: author

Leader acceptance reflects recognition of the leader by followers. Leaders who are accepted by their followers will exercise better influence and recognition. Leader acceptance will be employed as an intervening variable which has an effect on leader effectiveness. Leader effectiveness reflects an interaction between organization and leader behaviors and attributes. There is also a relationship between leader acceptance and effectiveness. Increased acceptance will result in increased effectiveness of the leader (Figure 2).

5. Methodology Design

The planned Research methodology for empirical implication and testing of the model could employ both qualitative and quantitative approaches. A qualitative approach could also be applied through conducting individual in-depth Interviews, expert interviews, expert panels, focus groups and one-on-one Behavioural event interviews (Gutierrez *et al.* 2012).

The Universal Leadership behaviors plan is to apply a quantitative approach collecting primary data through self administered questionnaire. The methodology of research is developed through the design of a self administered questionnaire which is to be distributed through post mail. The measurement scale employed in the questionnaire design is Likert scale. The target industry and unit of analysis are significant questions to be investigated. Higher education, Banking, Insurance, and telecommunication, as well as private, public and family owned business form equivalent ranges of industries could be very interesting sectors to investigate at a cross cultural approach.

Leadership behaviours and Social Culture Questionnaire is based and originated from prior leadership and social culture research (Cogner and Kanungo 1998; Kouzes and Posner 1995; Strange and Mumford 2002; Kotter 1996; Munter 2000; House *et al.* 2004; Mittal and Dorfman 2012). The leadership section of the questionnaire comprises a set of 46 items measuring perception of leadership behaviours that could be applied at a universal approach.

According to Cooper and Schindler (2011) constructing a measurement scale requires several factors which influence reliability, validity and practicality of the scale. These factors include response type, data properties, number of dimensions, balanced or unbalanced, forced or unforced, number of scale points and rater error. The rating scale is employed through the application of five points likert scale, which was selected to measure respondents' attitude and degree of agreement or disagreement with the statements constructed in the questionnaire. According to Cooper and Schindler (2011) the advantages of the likert scale include simplicity and reliability. The scale produces interval data. Back Translation was constructed as the scale was originally constructed in English. According to Brislin (1970), it is advisable to conduct back translation in cross cultural research, where the scale designed and distributed in more than one language.

A pilot test study was constricted to test the reliability, validity, practicality of the scale and to detect any weaknesses in the instrument. According to Cooper and Schindler (2011) a pilot test is conducted to detect any weakness in design and instrumentation and to provide proxy Data for selection of a probability sample. A convenience sample was selected from Higher Education industry in Syria. The questionnaire survey was distributed to one private and one public Higher Education institutions. The total number of collected questionnaires is 68 responses. Only 56 of the questionnaires were employable due to lack of reliability in responses.

Reliability, validity and practicality test will be conducted to identify the number of factors that can be used to represent relationships among the research variables of the study. According to Cooper and Schindler (2011) a factor analysis is a general term for several specific computational techniques, which have the objective of reducing to a manageable number may variables that belong together and have overlapping measurement characteristics. Cronbach alpha test will be conducted to provide a measure of the internal consistency of the scales. Internal consistency describes the extent to which all the items in attest measures the same construct and are connected to the interrelatedness of the items within the scale (Tavakol and Dennick 2011). Cronbach alpha Reliability test shows optimal reliability ranging from 0.80 to 0.93 which is to be considered an excellent indication. Future research should consider is the examination of a probability sample and larger sample size. Factor analysis should be constructed to test the validity of the scale (Table 1).

Table 1. Cronbach alpha reliability test (n=56)

Variable Components	Number of Items	Alpha (α) without deleting any item
Charismatic	6	0.87
Visionary	8	0.91
Communicative	5	0.80
Team oriented	11	0.87
Servant	14	0.93

Source: author

Limitations. The first limitation of the research study, is the lack of empirical testing of the model. Empirical testing of the theoretical framework should be constructed selecting a sample which preferably represent different business sectors and industries in one cultural context and in a cross cultural contexts, investigating samples from

different nations and borders. The question of culture measurement is also a critical question to be investigated in this aspect. If current leadership model is to be examined in a cross cultural context, consequently measurement of culture and its different dimensions is needed in this context.

The second limitation of the research study is related to lack of qualitative approaches in testing the leadership effectiveness model. Qualitative approach including individual depth interviews, focus groups and observation could employed in future studies to test the model and support results obtained from quantitative approaches. A methodological approach that would combine qualitative and quantitative methods is very advisable in this context to test the theoretical model.

Future research of the Universal Leadership Effectiveness could employ the application and empirical testing of the model at a cross cultural approach. An empirical testing could include samples selected from different regions representing Western, Middle Eastern, European and Ocean Pacific regions. Future research could also investigate a contingency model of leadership and culture examining leadership behaviors that could be applied in specific cultures. A cross cultural sample could be selected from different regions taking in consideration harmonizing the target industry and unit of analysis of the research. It would be advisable to employ qualitative and quantitative approaches in future research studies.

Conclusions

The research paper examines a theoretical framework of leadership behaviours and effectiveness at a universal context. It investigates the relationship between leadership and effectiveness. The model scrutinizes a culture universal approach. The research suggests a quantitative approach for empirical testing. The importance of the research is in the potential proposition of the investigated leadership behaviours and their application across different cultures' as well as industries and businesses. Servant and authentic leadership can suggest further investigation, development and contribution to leadership research across culture.

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**SUSTAINABLE ENTREPRENEURSHIP AND WOMEN IN SCIENCE AND EDUCATION: GENDER
 EQUALITY, GENDER INEQUALITY**

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Abstract. Sustainable development of societies, businesses, and, ultimately, countries among other factors, is affected by such important driving force, as gender equality. The paper is dedicated to study of gender situation in science and education. It is demonstrated the process of feminization in these spheres and the tendency towards gender balance. At the same time gender inequality persists, first of all it concerns science. Issues of low salaries and poor working conditions are acute for women. As demonstrated in the paper the inequality affects women's everyday lives and social well-being.

Keywords: Sustainable entrepreneurship, gender equality, gender inequality, social well-being, women's poverty, women in science, women in education

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JEL Classification: A130, D630, E6, J160

1. Introduction

Sustainable economic development in big extent is dependent on sustainability of entrepreneurial processes (Tvaronavičienė, Lankauskienė 2011; Ercsey 2012; Laužikas, Dailydaitė 2013; Lankauskienė, Tvaronavičienė 2012; Mačiulis, Tvaronavičienė 2013; Balkienė 2013; Tunčikienė, Drejeris 2015; Giessen 2015; Lankauskienė 2014; Tarabkova 2014; Peker *et al.* 2014; Prause 2014; Caurkubule, Rubanovskis 2014; Litvaj, Poniščiaková 2014; Figurska 2014; Išoraitė *et al.* 2014; Tvaronavičienė 2014; Bileišis 2014; Wahl, Prause 2013; De Alencar, Almeida 2013; Raišienė, Jonušauskas 2013; Išoraitė 2013; Laužikas, Mokšėckienė 2013; Dzemyda *et al.* 2015; Mostenska, Bilan 2015; Bilevičienė, Bilevičiūtė 2015; Goyal, Sergi 2015; Tvaronavičienė *et al.* 2014; Vasiliūnaitė 2014). Those processes in their turn are directly affected by women role in science and education (Mačiulis, Tvaronavičienė 2013; Balkienė 2013; Tunčikienė, Drejeris 2015; Giessen 2015; Lankauskienė 2014; Tarabkova 2014; Peker *et al.* 2014; Prause 2014; Caurkubule, Rubanovskis 2014; Litvaj, Poniščiaková 2014; Figurska 2014; Išoraitė *et al.* 2014; Tvaronavičienė 2014; Bileišis 2014; Vasiliūnaitė 2014).

In Russia the fields of science and education are widely regarded as the most developed in terms of gender equality. Indeed, from the early years of Soviet power women had access to formal education, including higher education. The fact that education in the USSR was free facilitated a massive flow of women into higher educational establishments. In the early 1970s about 7% of GDP went to support education (Voronina 1998). The state of affairs in education was significantly better than in other parts of the national economy. The difference was primarily in the ratio of men to women working in education. For example, in 1985, the percentage of women in education was 78%, and in manufacturing only half as much 42% (Narodnoe khoziaistvo SSSR 1988, 1989). Also we argue that the difference was in the ratio of the men's to women's salaries, though we cannot give exact figures as in Soviet times there were no gender statistics of this kind. Even in the special statistical digest of 1995 "Women of Russia," there was no data on women's salaries (Zhenshchiny Rossii 1995). In the post-Soviet period the percentage of women in education changed insignificantly (81% in education, and 41% in manufacturing). The ratio of female to male salaries in education was 86%, whereas in manufacturing it was less than 70%. So it is a continuing trend (Zhenshchiny i muzhchiny Rossii 2010). There was steady progress in expanding the proportion of women involved in science. In fact the data shows a steady increase in the percentage of women in science during the entire history of the development of the national science base, and in some periods the rate of growth of women in science was actually at the expense of male scientists (Agamova, Allathverd'an 2001). Thus, during the Soviet era, the gender equality situation in science and education in Russia was better than in many European countries in those days (Stolte-Heiskanen 1991).

Science and education became, as it were, a showcase for Soviet achievements in the area of equal rights and opportunities for men and women. The myth of total equality between men and women working in the field of science and education collapsed in the post-Soviet era. Much has been written about discrimination against women (Voronina 1998; Antonova 2010; Beljaeva *et al.* 2000; Haritonova 2013 and others). From the first years of perestroika in Russia, the women's movement started to develop rapidly, and research into gender issues was launched at universities. Researchers got access to gender statistics. In general, society became more democratic. One might expect that equality between men and women was at last to become reality. Yet, even to this day, in the fields of science and education one can observe gender processes developing in different directions.

This study posits a paradoxical (or contradictory) situation in the sphere of science and higher education at the moment—a clear tendency towards gender equality on the one hand, but also a significant gender disparity on the other. My research is based on official national statistics on gender and on the results of the quantitative sociological investigation of men and women working across disciplines in the sciences, in the Russian Academy of Sciences or in universities. The figures speak for themselves.

2. Feminization of the realms of “science” and “education”: the quantitative aspect

Russia is a country of highly educated women. They account for approximately 57% (Table 1) of the student body.

Table 1. Percentage of women students in institutions of higher education

Years	1985/86	1990/91	1994/95	1999/2000	2007/08	2008/2009
%	56	51	53	55	57	57,2

Source: Zhenshchiny i muzhchiny Rossii 2000; 2004; 2008; 2010

The percentage of women students somewhat declined in the most economically severe 1990s, but by 2008 had already exceeded the pre-perestroika level. In state universities in the academic year 2008-2009, women comprised 56.9% of the students, and in private institutions—62.2% (Obrazovanie v Rossii 2003, 2010). In 2007, of those with a higher level of education employed in the national economy, 53.7% were women. Women professionals possessing the highest level of qualification in the national economy constituted 61%, while among experts with an average qualification level, women constituted about 68% (Zhenshchiny i muzhchiny Rossii

2008).³ The representation of women in the sphere of science education in Russia is satisfactory enough. In fact, these sectors are experiencing feminization. Education is especially feminized due, primarily, to the great number of female teachers in high schools. But even in colleges and universities, women make up more than half of the science faculty—55% (Table 2) (Zhenshchiny i muzhchiny Rossii 2008; 2010). At private universities, the percentage of women professors and lecturers is higher than in the state institutions (Table 3).

Table 2. Teachers of the state and municipal educational institutions by types of establishments (percentage of women)

	Academic year 2007-2008	Academic year 2009-2010
Total	79	79
Teachers in high schools (obscheobrazovatel'naia shkola)	86	87
Teachers in educational institutions for primary vocational training (PTU)	73	67
Teachers of secondary specialized educational institutions (tekhnikum)	76	79
Teachers of higher educational institutions (faculty)	54	55

Source: Nauka Rossii v tsifrakh 2011

Table 3. Increase in the number of women on the teaching staff of higher educational institutions; % at the beginning of the year

	State educational institutions						Private educational institutions				
Years	1995	2000	2001	2002	2006	2009	2000	2001	2002	2006	2009
Percentage of female employees (full-time)	44.4	49.1	50.3	51.0	53.3	54.7	56.9	56.7	58.5	54.0	57.6
Percentage of female employees (part-time)	27.6	34.8	36.3	38.4	-----	-----	52.5	54.5	54.8	52.6	52.6

Source: Calculations of author based on Obrazovanie v Rossijskoj Federatsii 2010

The state higher educational institutions, especially large prestigious universities and institutes, are more conservative on gender issues in comparison with private universities. This is confirmed not only by the data cited, but also by the results of other studies (Agamova, Allathverd'an 2001; Eflova, Fursova 2007). In the sphere “science and scientific service,” women number more than half as well. And they dominate in small business that is related to science and education. According to the experts, up to 56% of private enterprises in this sphere belong to women (Oreshenkova 2007).

3. Feminization of the realms of “science” and “education”: the qualitative aspect

The process of the feminization of science and education is characterized not only by quantitative, but also qualitative, changes. The number of female post-graduate students (*aspirantki*) and candidates for the higher doctorate (*doktorantki*) (Table 4) is increasing. Do note that there are two scientific degrees in Russia: Candidate of science (*Kandidat*) and a higher level of doctorate—Doctor of Sciences (*Doktor nauk*). Both are considered roughly equivalent to the Ph.D, but it is much more difficult to get the degree of Doctor of Science.

³ These data concern occupational groups. The group with the highest level of qualification includes, for instance, engineers, doctors, architects, and scientists. The group with an average qualification level includes, for example, hospital nurses, teachers in preschool institutions or in primary schools, and technicians.

Table 4. Increase in the number of female graduate students and candidates for the doctorate

Years	1998	1999	2000	2008	2009
Female graduate students (<i>aspirantki</i>)	41.7	43.2	44.0	44.6	45.9
Candidates for the doctorate (<i>doktorantki</i>)	33.9	35.9	37.8	47.1	47.1

Source: Zhenshchiny i muzhchiny Rossii 2000; 2004; 2008; 2010

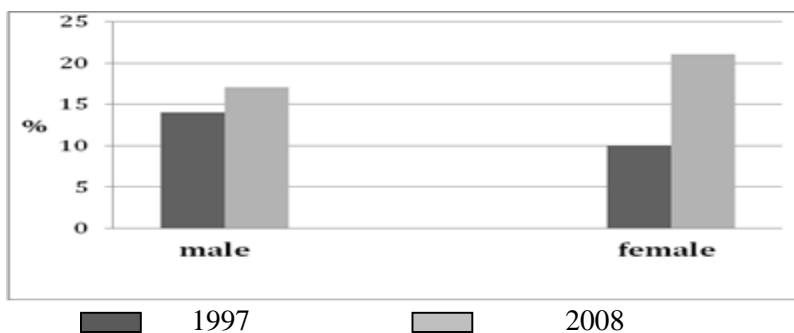
The difficult late nineties of the last century in Russia witnessed a massive reduction of personnel in science. Women were affected more than men. The proportion of women among researchers has fallen, but the percentage of women who get advanced scientific degrees has been rising constantly (Table 5).

Table 5. Percentage of female researchers

Years	Total %	Among Doctors of Sciences (<i>Doktor nauk</i>) %	Among Candidates of Sciences (<i>Kandidat nauk</i>) %
1994	48.7	16.9	31.9
1998	45.2	18.5	33.5
2000	44.1	18.8	33.9
2008	41.8	22.0	37.9
2009	41.9	22.4	38.2

Source: Nauka Rossii 2003

The largest percentage of female researchers is in the humanities. In 2010, women made up 63.4% of the total number of researchers in the humanities, “doctors of sciences”: 42.4% and “candidates of sciences”: 63.5% (Nauka Rossii v tsifrakh 2011). Since 2000, the number of female researchers in technical sciences has declined steadily. Our research conducted in 1997 and 2008 confirmed the increase of women's interest in scientific work and an academic career (Figure 1). We see that in 2008, the proportion of female students and post-graduate students participating in scientific conferences was significantly more than it was in 1997, although the total number of female graduates students in these years was less than that of male graduate students. Thus, in 2007, women made up 42.9% of the total number of postgraduates, but of those less than 25 years of age, women made up only 34.6% (Indikatory nauki 2009). Many of the young men entered postgraduate course to avoid Army service.

**Fig.1.** Post-graduate and undergraduate students participating in scientific conferences in 1997 and 2008 (Results of our surveys in 1997 and 2008)

Source: Prepared by author

The percentage of female thesis and dissertation advisors is increasing (Table 6). Also, the number of female administrators in higher education is growing. In the academic year 1999-2000, 22% of the deans of faculties were women. By 2009-2010, that figure grew to 37% (Table 7).

Table 6. Percentage of female thesis and dissertation advisors for scientific degrees

Years	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Candidates of sciences	30	31	32	33	35	36	37	38	38	39
Doctors of sciences	17	18	19	19	20	21	22	24	25	26

Source: Zhenshchiny i muzhchiny Rossii 2000; 2004; 2008; 2010

4. Gender inequality in science education and its consequences

Science and education are characterized by the same gender inequality that we find throughout the labor market. First, the feminization of science and education is directly related to low wages in these disciplines. The average salary in education in 2007 was 30% below the average wage in Russia. By 2011, the wages in education were 1.5 times less than the average (Rossiia v tsifrakh 2012). By comparison, wages in finance were 2.62 times higher than the average. The worst situation is in Moscow, where there are many universities and institutes of the Russian Academy of Sciences (Varshavskii 2009). The prestige of science began to fall in the 1990s. Young men left jobs in science to work in other, more prestigious and highly paid, fields. This explains why women today prevail among researchers in the age group of 30-50.

Second, women in science and education are still concentrated at the lower levels of the hierarchy. They have very good educational capital, but they are lacking both the capital of academic and scientific power and the capital of scientific prestige. This is well illustrated by the representation of women among the teaching staff of Russian universities (Table 7).

Table 7. The percentage of women on the staff of state and municipal higher educational institutions for academic years 2005-2006, 2007-2008 and 2009-2010

Faculty and Administrators	Women (%)		
	2005-2006	2007-2008	2009-2010
Total	53	54	55
Including:			
vice-chancellors	8	8	9
deputy vice-chancellors	26	26	29
Deans	34	36	37
chairs (heads of departments)	33	35	37
Professors	24	26	28
assistant professors, senior lectures	49	52	54
Lecturers	70	70	71
Assistants	69	69	68

Source: Zhenshchiny i muzhchiny Rossii 2004; 2008; 2010

We see that women comprise only 9% of the vice-chancellors of higher educational institutions, and of deputy vice-chancellors, only 29%. It is impossible to ignore the fact that women are more likely to achieve higher status as an administrator than as a member of the faculty. While the percentage of women among deans is 37%, women comprise only 28% of the cadre of (full) professors. From the example of the University of Kazan we can see the usual gender composition of administration and faculty: the rector and vice-rector are men; among 60 members of the Academic Council, only 6 are women; among 29 distinguished professors, only 4 are women (Eflova and Fursova 2007).

A woman's path toward career and scientific achievements is longer in comparison to a man's. Women take more time to complete their doctoral dissertations. In data from 1999, women took from 17 to 35 years to complete the dissertation for Doctor of Science (*Doktor nauk*), whereas half of the men took under 20 years to complete the requirement (Vinokurova 1999). Also, women usually begin their scientific career later than men do. In 2007,

among those completing doctorates under the age of 35, 42.3% were women, but of those 35-49 years of age, 52.8% were women. However, among those receiving the doctorate at an even older age, men again prevail (calculations of the author according to Indikatory nauki 2009).

Our study reveals that traditional stereotypes of gender roles are particularly strong in science. According to our respondents, the most routine and unattractive research is traditionally assigned to women. Women's rights are in fringed upon in the publication of papers made in cooperation with men—they might be cited as a subordinate co-author, or not cited at all. Moreover, women-administrators are more often assigned routine jobs and cannot make important decisions—this prerogative more likely goes to male chairs or professors. All the researchers write about such discrimination against women working in science and education (Agamova and Allathverd'an 2001; Bogdanova 2004; Eflova, Fursova 2007; Koshkina 2005; Mirskaja, Martynova 1993; Zhenshchiny i muzhchiny Rossii 2010).

Women working in education earned approximately 25% less than their male colleagues earned in 2000, and 27% less in 2002 (Obrazovanie v Rossii 2003).⁴ In 2011, the salaries of female teachers in universities were 18% lower than those of male teachers. The gap in earnings is even higher in scientific institutions (according to the most recent available data, for 1999, women earned 32% less (Bogdanova 2004). In other fields of the national economy, the difference between men's and women's earnings is even greater. For example, in 2007, in the field of information technology, wages of women lagged 60% behind those of men (Zhenshchiny i muzhchiny Rossii 2008). Nonetheless, it is evident that as a result of the loss of prestige in the sciences, the poor material provisions for scientists and university professors, low wages, and, finally, gender discrimination, women in science and education have become highly disadvantaged.

Our results confirm that the living standards of men and women in education and science vary. They are based on a questionnaire survey of research scientists that was conducted in 2008. The sample consisted of representatives of thirteen fields of science, mostly mathematicians, economists, and biologists. We investigated both women and men. The survey covered twenty- two population centers. The participants' main field of activity was either scientific research, as a rule combined with teaching, or teaching in institutions of higher learning, in addition to science work. Half the respondents held doctor or candidate degrees. In addition, 25% were administrators of varying ranks (heads of departments, laboratories, divisions). One fifth were graduate and undergraduate students. So the group under review represents the most active stratum of the academics engaged in research. A similar survey was conducted in 1997; the results were published in the Russian Academy of Sciences journal *Sociologicheskie issledovaniya* (Vinokurova 1999). The differences between women and men participating in the survey are quite large according to several parameters. Women administrators comprise only 13%; men—nearly half. Women “doctors of sciences” comprise 7%; men—more than 40%. However, 35% of the women hold the degree of “candidate of sciences” as opposed to 17% of the men.

A striking observation of the 2008 questionnaire is that 68% of women researchers believe that their wages are below average in the region of their residence, while only 45% of the men surveyed share these feelings (Figure 2).

⁴Private institutions are not included.

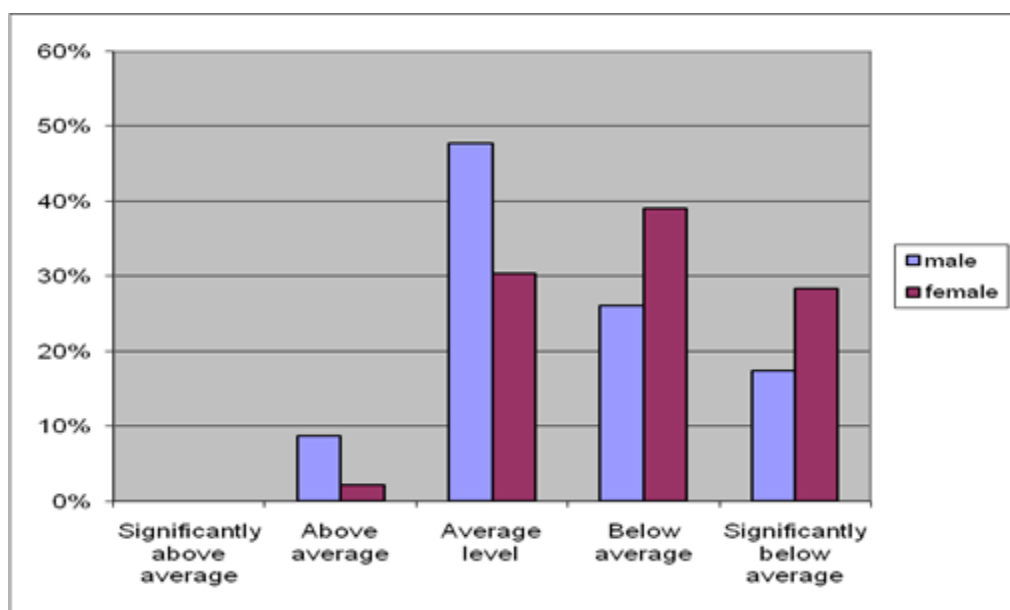


Fig. 2. The respondents' perception of their level of wages compared to the average wage in the region of their residence

Source: Prepared by author

Both men and women have to look for a second job. But 67.4% of the women believe that they could refuse a second job only if their salaries increased by at least 200%. In Soviet times, representatives of science and education considered themselves middle-class. Today more than half the men in these fields (52.2%) continue to believe that they belong to the middle class; no one considers himself to be very poor. But 50% of women consider themselves to be poor, and 4.4% to be very poor. Indeed, women cannot pay for services commonly available to the middle class. Thus, women are less likely to be able to pay for medical services. This is a major problem, because it is almost impossible at present to get free medical services of good quality (Figure 3). We see that the disparity between men's and women's ability to pay for medical care is significant. Only in rare situations can women pay for the services of a dentist. Compared to men, only half of the women can pay for medical consultation and so on.

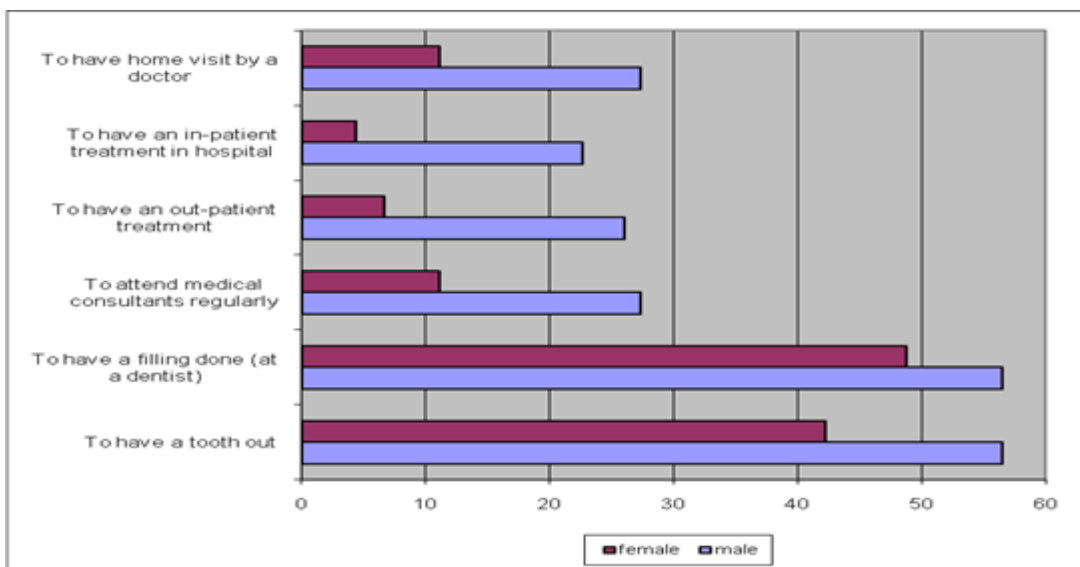


Fig. 3. Ability of scientists and academics to pay for medical services (percentage)

Source: Prepared by author

66.7% of the female scientists and academics, compared to 40.9% of the males, think that it is necessary to increase their salaries more than 200% in order to get medical services of good quality. However, only 2.2% of the women could pay for medical services if their salary were merely doubled. Nobody among the women could pay for medical services if their salary were increased by only 50%.

26% of the men, but only 17% of the women, have the opportunity to spend their vacation at a resort (in a sanatorium or “*dom otdykha*”). Almost a third of the women think that it is necessary to increase their salary by 200% in order to purchase good food. Thus the recovering and preservation (maintenance) of women’s health is a great problem for female researchers and academics.

Scientists and academics give great importance to the education of their children. They want their children to get an education at least not worse than their own. They believe that only a good education and a prestigious profession will enable their children to get good jobs. But women generally find it impossible to pay for the education of their children at good universities. In this sense, men are in a better position (Figure 4). We see that less than a third of the women can pay an annual tuition fee of \$2,000. The tuition at prestigious, well-known universities is a great deal higher. For example, a year’s tuition, figured in dollars in 2008, was as follows: Moscow State Institute of International Relations, \$9,976; Higher School of Economics State University, \$9,392; Southern University, \$6,000; Far Eastern State Medical University, \$3,160. (Varshavskii 2009). In contrast to wages, the tuition fee is constantly increasing.

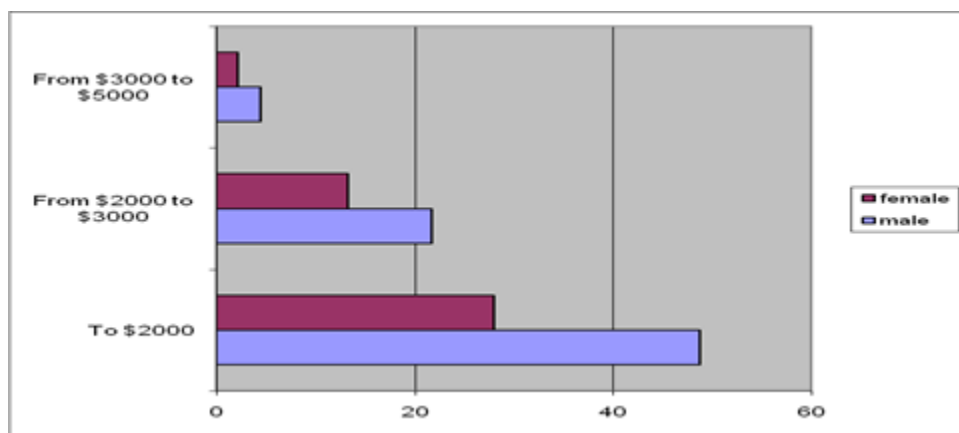


Fig 4. Ability to pay for the higher education of children (percentage)

Source: Prepared by author

The poor financial position of women in science and academia affects not only their everyday life. Women have fewer opportunities to upgrade their qualifications, to keep up with new scientific achievements in their field. For example, they find it difficult to afford the necessary scientific literature or to subscribe to necessary journals (Figure 5). In addition, 72.7% the women, compared to 62.5% of the men, cannot afford to buy the scientific books required for their research.

Today it is often argued that all necessary information can be found on the internet. But, for these men and women, it is simply no so—one out of four women does not have access to a computer. The situation with peripheral equipment maintenance is even worse (Figure 6).

36.3% of the women cannot obtain, under any circumstances, the money needed to travel to conferences abroad. The figure for the men—29.2%. Women give great value to upgrading their qualifications, and they are ready to spend their own money for this purpose. For example, 66.6% of the women believe that an increase in their wages would allow them to pay for participation in conferences, to buy necessary books and journals, and to buy a printer, etc. Among the men, only 56.5% are ready to spend their own money for these purposes.

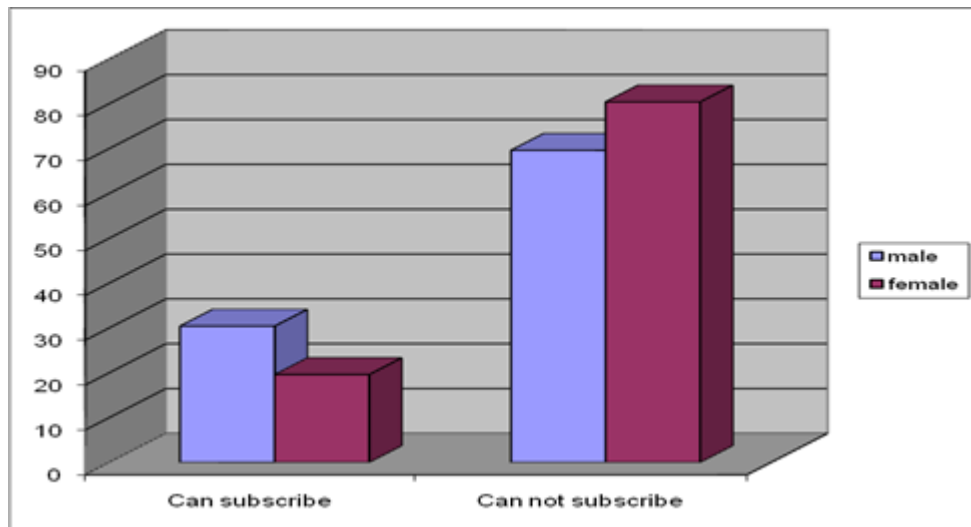


Fig. 5. Ability to subscribe to journals necessary for scientific work (percentage).

Source: Prepared by author

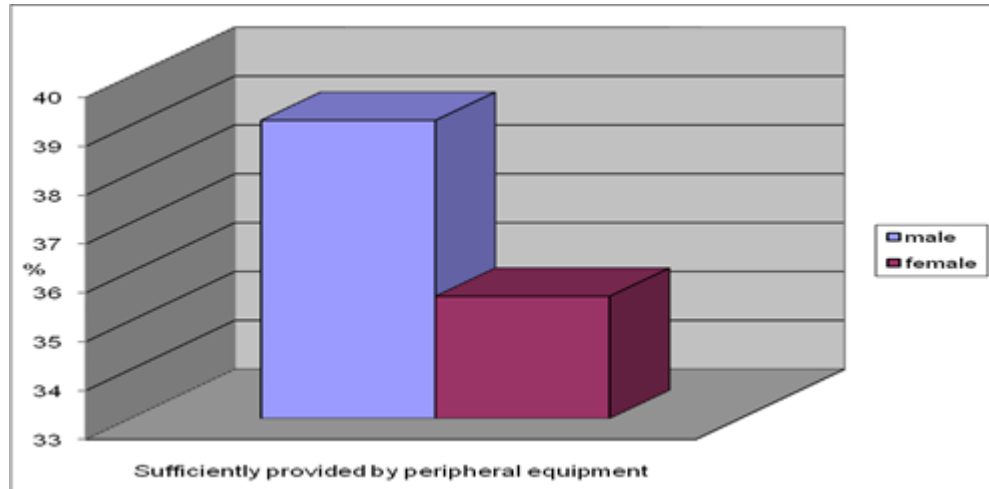


Fig. 6. The availability of computers and peripheral equipment (percentage)

Source: Prepared by author

Poverty, poor working conditions, and the lack of technical support could not but affect the mood of women (Figure 7). The women's general satisfaction with life is lower than that of the men. Also, the women feel that they are less in control (Figure 8). Only about 10% of the women believe that they have a certain degree of power. Taking into account that 13% of the female respondents in our sample were managers, we can argue that even female heads of departments, laboratories, etc. feel that they have less power and fewer rights.

The women in our study are highly aware of the issues of inequality and injustice, whether it concerns the situation in Russia as a whole or their personal situation. And they have to deal with inequality and injustice in their lives more often than men do. Thus, 59% of the women have experienced inequality in pay. Among the men, this figure was only 48%. 50% of the women, in their opinion, have faced inequality and injustice in career opportunities. Only 35% of the men had had this experience.

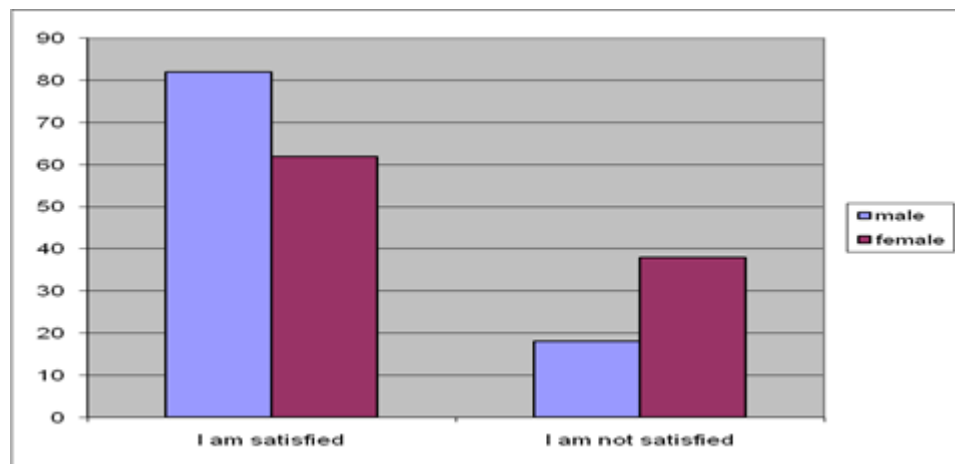


Fig. 7. Sense of satisfaction with life (percentage)

Source: Prepared by author

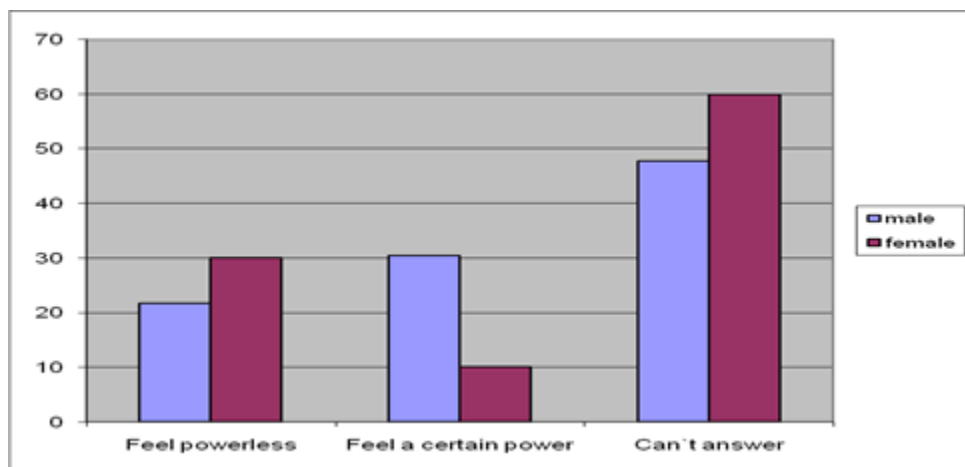


Fig. 8. Sense of powerlessness /not being in control (percentage)

Source: Prepared by author

Finally, women are more likely than their male counterparts to rely on nongovernmental organizations. Thus, 93% of the women, but only 61% of the men, believe that such organizations should draw attention to the problems of inequality in our society. Women hope that the activity of NGOs might improve the situation. As for other issues unrelated to gender, the views of the men and women are virtually identical. For example, both men and women are equally convinced that science is no longer respected in Russian society (70% of the male and 71% the female respondents). Also, both women (100%) and men (99%) are sure that inequality is a challenging problem for Russia. This evidence supports the view that women in science and academia recognize gender equality as a specific problem, negatively affecting the position of women in these fields.

Conclusions

Our study demonstrates that the gender situation in the fields of science and education has changed little in comparison with Soviet times. In spite of many achievements, most women hold lower positions in comparison with men. Women in science and education are in a bad situation. As for women in science, they suffer from the significant post-Soviet reduction of funding for science. Also, the ratio of women's to men's salaries in science has changed for the worse. It was 73% in 2009 but only 71% in 2011. Most scientists are concentrated in big cities where the level of pay in science is lower than the average pay in the city's economy. In education the ratio of

salaries became better. But the salaries are much lower than average for the national economy. So the combination of low salaries in education and science and the consequences of gender inequality manifest themselves most in terms of the material well-being of women who are lecturers and researchers in higher education. Their real situation and their formal status do not correspond to each other. There is a tendency now of their turning into the “new poor”, to use the terminology of Professor Rimashevskaja (2003).

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PECULIARITIES OF EXPORT STRUCTURE IN LITHUANIA: SYNTHESIS AND ANALYSIS

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Abstract. The research paper discusses the concept of export competitiveness and analyzes export structural change as an indicator of it. The analysis is started by the historical review of integrated system for export classification. Furthermore, the paper presents peculiarities of export structure in Lithuania based on three different types of classification: by goods' nature, by factor-input aspect and by sectorial composition. This study examines structural changes in Lithuanian export supply and demand functions, which can be used as a good reference in understanding the determinants of trade performance of small open economy countries. The recommendations for future investigations are developed at the end of research paper's parts.

Keywords: Lithuanian international trade, export competitiveness, export structural change

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JEL Classifications: L16, P45, P51

1. Introduction

The relationships between export competitiveness and export structural change are complex to analyze. Since the late 1990s debates on these relationships have been strongly influenced by the Krugman hypothesis, which states that “national economic welfare is determined primarily by *productivity* in both traded and non-traded sectors of the economy”. There is a significant strand of literature devoted to discussion on productivity factors (Travkina, Tvaronavičienė 2010, 2011; Lankauskienė 2014; Tvaronavičienė 2014; Raudeliūnienė *et al.* 2014; Dezellus *et al.* 2015; Jefremov, Rubanovskis 2015; Mostenska, Bilan 2015; Ignatavičius *et al.* 2015; Baublys *et al.* 2015).

We adopt an approach, where emphasis is put on domestic structure of an economy and of (Travkina, Tvaronavičienė 2010, 2011). In the article it is assumed that export competitiveness is a derivative from export structural change by three different methods; therefore, properly presented and juxtaposed data on labour, capital and energy productivity/intensity would provide new insights on a character of relations between export competitiveness and change of export structure.

2. Integrated Systems of Export Classifications

It is noticeable, that the average share of Lithuanian export for the total period of 1995-2013 in the GDP structure accounted for 57% of GDP (Fig. 1), and it is 54 per cent higher than EU-28 average share. Such high average is a typical indicator for small open economy countries, whose economic activities are mostly export-oriented, like in Lithuania or the other Baltic States. The export is one of the main driving forces for such economic structures.

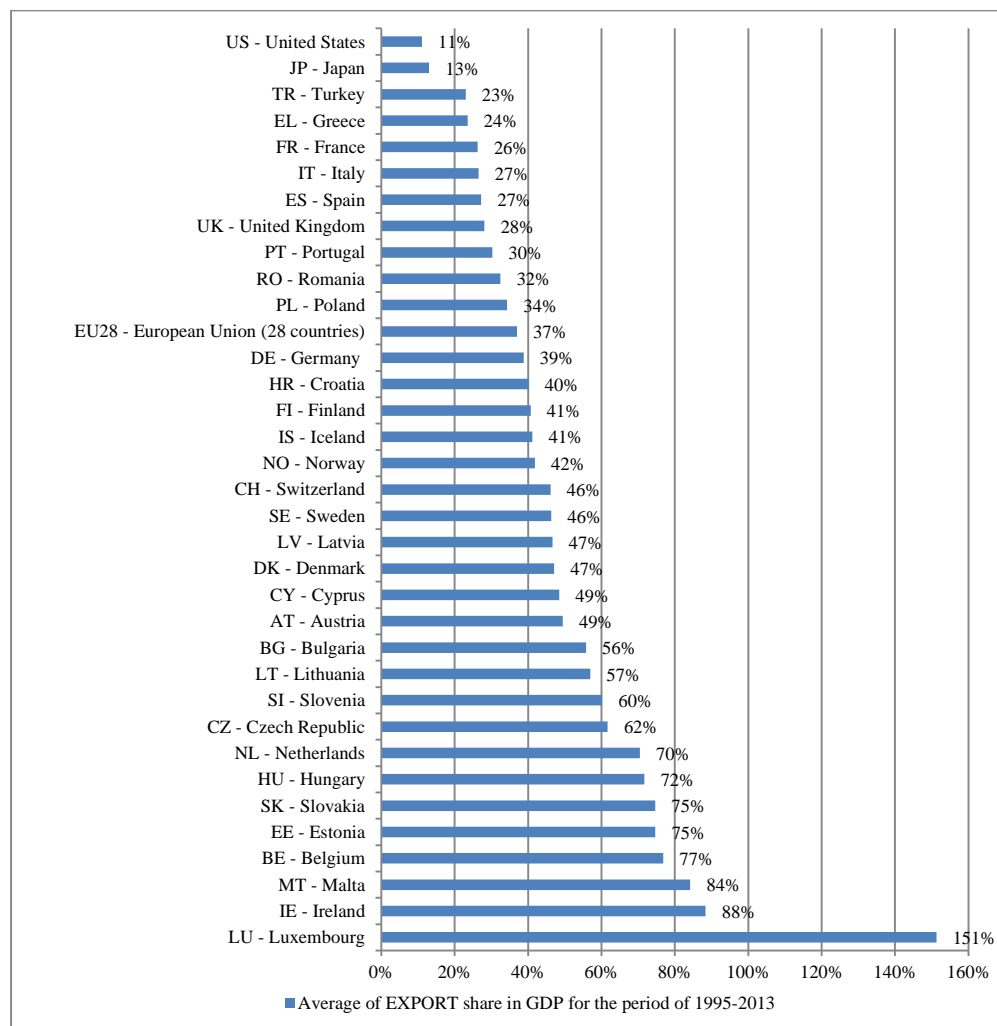


Fig.1. Average of export share in GDP for the period of 1995-2013, in percentage

Source: Absolute values are provided by EUROSTAT, and the percentage expression of export structure is computed by the authors

In this article the export structure' classification systems and their trends in Lithuania during 1996-2013 year period are discussed. Before doing the trend analysis, classification's types of exporting goods will be introduced and explained. Secondly, the authors strives to provide a picture of how particular group of goods were exported during a particular time span; to trace tendencies by identifying which goods expanded their exports, and which otherwise - shrank.

As indicated above, in the scientific literature we can find a variety of types determining export structure. In this Section the authors focuses on the following criteria:

- The statistics downloaded from EUROSTAT or Statistics Lithuania official web-sites;
- The change of the currency into Euro;
- The statistical information used for this research is based on "data adjusted for working day and seasonal effects" only. Seasonally adjusted Euro zone and EU series are calculated by aggregating the seasonally adjusted national data (EUROSTAT).

- d) The period under examination is 18-year period of 1996-2013.
- e) Only quarterly information was used for this article's research.

The authors designed to determine the relationship between export and different types of export structure; and examine if distinguished types of structure demonstrate similar effect on trend analyse. The survey of global academic literature indicated various determinants for the classification of export structure:

- a) Nature of exported goods;
- b) Factor-input aspect of exported goods;
- c) Type of industries which export goods (or sectorial aspect);
- d) The Lithuanian-origin aspect of exported goods.

3. Integrated Systems of Export Classifications

Classifications serve as a basis for data collection and dissemination in any area of statistics. They provide standardized concepts applicable for description of phenomena, such as economic activity, products, expenditures, occupation or health. They are necessary to consistently measure these phenomena within and across countries and geographical regions (Eurostat 2015). The authors dedicate the introduction to statistical classifications. This sub-section includes the introduction to the typology of classifications based on the degree of integration between different systems of classifications. This kind of an integrated system allows completing the comparability of statistics produced in different statistical domains. As a consequence, for instance, statistics on the production of goods (reported in the EU according to Prodcom surveys) could be compared with statistics on trade (in the EU produced according to CN). It is noticeable that the beginning of the compilation of an international integrated system of classifications of activities and products related to the resolutions adopted by the 17th meeting of the United Nations Statistical Commission (1972) and the 21st meeting of the Conference of European Statisticians (1973) (Eurostat, 2015). However, today, the key European economic classifications are fully harmonized with the global ones. Under the relevant European regulations, this also applies to the national classifications of the Member States of the European Union and, under the EEA Treaty, to the EFTA-EEA countries. In Europe the requirement for harmonization between the central economic classifications and any special survey classifications are also available. The central economic classifications thus form the core for an international, European and national group of classifications. From the European point of view, this system can be represented as follows (Fig.2):

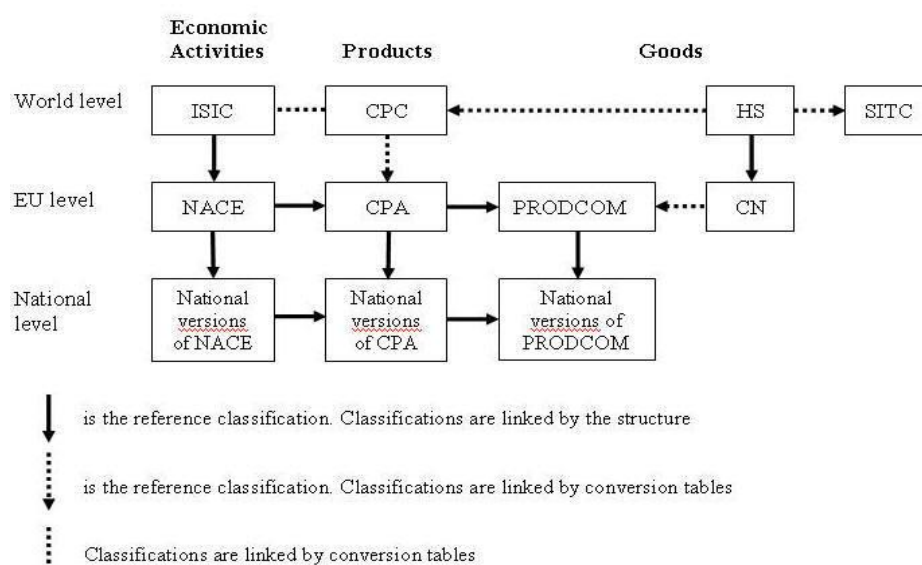


Fig.2. International integrated system of classifications of activities and products, from the European point of view

Source: EUROSTAT, explanation of classification systems presented by the authors (below):

- | | |
|--|--|
| <ol style="list-style-type: none"> 1) ISIC is the United Nations' International Standard Industrial Classification of all Economic Activities; 2) CPC is the United Nations' Central Product Classification; 3) HS is the Harmonized Commodity Description and Coding System, managed by the World Customs Organisation; 4) SITC is the Standard International Trade Classification; 5) NACE is the statistical classification of economic activities in the European Community; a European | <ol style="list-style-type: none"> industry standard classification system consisting of a 6 digit code; 6) CPA is the European Classification of Products by Activity; 7) Prodcom is the classification of goods used for statistics on industrial production in the EU; 8) CN stands for the Combined Nomenclature, a European classification of goods used for foreign trade. |
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Therefore, the authors provide all available types of international trade classifications, prepared by governmental financial statistics divisions, and introduce the purpose of the analysis, for the particular type of classification which is more informative and advisable:

- a) The international Harmonized System (HS) is used mainly to classify physical goods for export to another country. HS has corresponding tables with CN, SITC and BEC.

The Lithuanian international trade data is available at 2-4- and 6-digit HS headings and subheadings, for the period of 1996-2014.

- b) The Combined Nomenclature (CN) is based on the Harmonised System and it is applied at both the tariff classification and the compilation of statistics within the European Community. CN is the common nomenclature of the European Community and it is used as an 8-digit product classification system in export declarations and in statistical declarations for trade in the European Community. All products and goods exported from the European Union or imported into the European Union must be classified for Customs purposes. Every product is assigned to a particular product classification code (EUROSTAT).

The CN code is subdivided into a hierarchical, 8-digit code structure followed by a description. The categories at the highest levels are called Sections, followed by Chapter, Sub-Chapter, Heading, and Subheadings. The first six digits relate to the harmonized system (HS) nomenclature, presented earlier, and the last 2 digits relate to the CN subheadings. CN has correspondence tables with HS and SITC.

The Lithuanian international trade data is available by 2-4- and 8-digit HS headings and subheadings, for the period of 1996-2014. *The data classified by CN and HS could be of interest for the export analysis by nature of goods.*

- c) The Standard international trade classification, abbreviated as SITC, is a product classification of the United Nations (UN) used for external trade statistics (export and import values and volumes of goods), allowing international comparisons of commodities and manufactured goods. The groupings of SITC reflect upon: the production materials, the processing stage, market practices and uses of the products, the importance of the goods in the world trade, and technological changes. The main categories are: food, drinks and tobacco (Sections 0 and 1 - including live animals), raw materials (Sections 2 and 4), energy products (Section 3), chemicals (Section 5), machinery and transport equipment (Section 7) and other manufactured goods (Sections 6 and 8).

SITC has corresponding tables with HS, BEC and ISIC. The Lithuanian international trade data is available by SITC for the period of 1996-2014.

- d) The Classification by Broad Economic Categories (BEC) provides export-data within the categories related to the capital, intermediate and consumption goods. BEC distinguishes the five categories specified by food, industrial supplies, capital equipment, consumer durables and consumer non-durables. BEC was originally designed to be mainly used for the summarization of the data on the international trade by large economic classes of commodities.

BEC has corresponding tables with SITC, CN and HS. The Lithuanian international trade data is available by BEC for the period of 1996-2014. Data classified by BEC and SITC could be applicable for the export analysis by goods used in certain production stages (similar to BEC classification; such as capital, intermediate and consumption goods).

The authors have chosen the CN classification in order:

- a) To explore the nature of exported goods (by CN2);
- b) To analyse the exported goods by LT-origin aspect (only with CN8 classification this analysis is possible). The export structure by CN2 could be split into CN8, *if the research by LT-origin aspect requires*;

- c) To ensure the comparability of the data on the structure of the international trade' and the industry in Lithuania. The corresponding table is researched by Peneder (Peneder 2002), and more information about this correspondence would be an idea for the further research.

4. Analysis of Export Structure by Goods' Nature

The research was based upon analyzing the Lithuanian export structure by the nature of goods, according to CN2 classification for the period of the last 18 years, i.e. for the period of 1996-2013.

Firstly, the authors analyse 2-digit CN classification, reviewing similar research performed by Lithuanian scientists (Rudzkis, Kvedaras 2003), and grouping 97 CN2 sections into 10 categories by the nature of exported goods (Table 1).

Table 1. Main categories of exported goods by their nature

Main groups of exported goods	Group abbreviations
Mineral products (CN 25-27, 68-70)	MINERAL (for fig.), "Mineral" in the text
Machinery, electrical and other related equipment (CN 37, 84-89, 91)	MACHIN (for fig.), "Machin" in the text
Food, beverages and tobacco products (CN 02 ,04, 07-09, 15-24)	FOOD (for fig.), "Food" in the text
Furniture and other miscellaneous articles (CN 49, 71, 90, 92-97)	MISS (for fig.), "Miss" in the text
Chemicals and pharmaceutical products (CN 28-36 ,38, 54-55)	CHEM (for fig.), "Chem" in the text
Rubber and plastic products (CN 39-40)	PLASTIC (for fig.), "Plastic" in the text
Textiles, apparel, leather and related products (CN 41-43, 50-53, 56-59, 60-67)	TEXTILE (for fig.), "Textile" in the text
Agricultural products (CN 01,03,05-06,10-14)	AGRICULTURE (for fig.), "Agriculture" in the text
Wood and products of wood, paper and paper products (CN 44-48)	WOOD (for fig.), "Wood" in the text
Metals (CN 72-76,78-83)	METAL (for fig.), "Metal" in the text

Source: investigated and grouped by the authors

Secondly, the authors examine the annual growth or decline of exported goods for the chosen period, investigates key structural changes and trends in Lithuanian export structure. Due to globalization processes during the years 1996-2013, Lithuanian export competitiveness changed rather significantly, and towards different directions; i.e. some goods gained additional competitiveness, whereas the other goods had losses (Travkina et al. 2009).

The graphical picture of Lithuanian export during the period of 1996-2013 reflected upon the indicated categories of exported goods by their nature (Fig.3), first of all, reveals the growth of overall export during the 18-years period: the nominal value of export increased about 8 times⁵; and the annual average export growth was at about 14 per cent⁶. Secondly, this graphical view stresses the increase in all indicated categories of goods, and, herewith, emphasizes different tendencies of increase: significant growth and positive increase (Fig.4).

⁵ Increase of nominal value about 8 times was calculated as "*the nominal value in 1996 / the nominal value in 2013*"

⁶ *Annual export growth rate* is a measure of the rate of change that the export goes through from one year to the other. *Annual average export' growth* is the average of all calculated export growth rates for the period of 1996-2013.

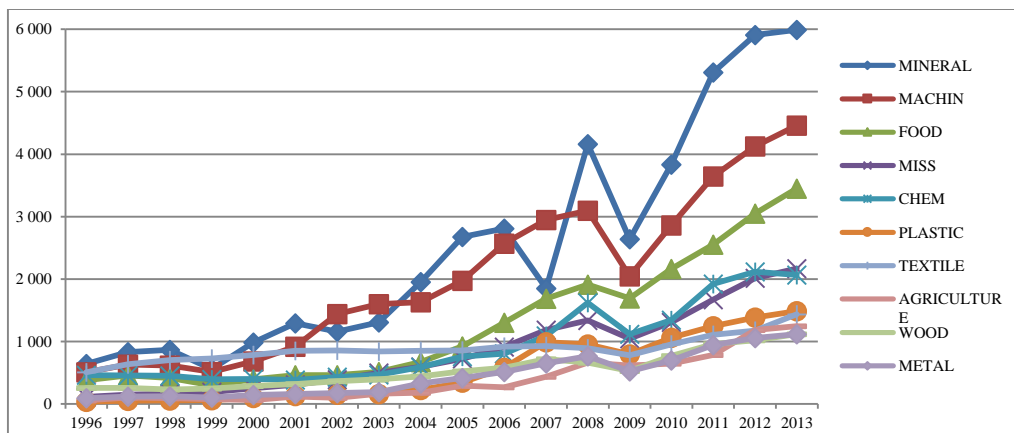


Fig.3. Lithuanian export during the period of 1996-2013 reflected by indicated categories of exported goods by their nature (Table 1), mln. EUR

Source: Absolute values are provided by the Statistics Lithuania (CN2), and conversion of LTL into EUR computed by the authors

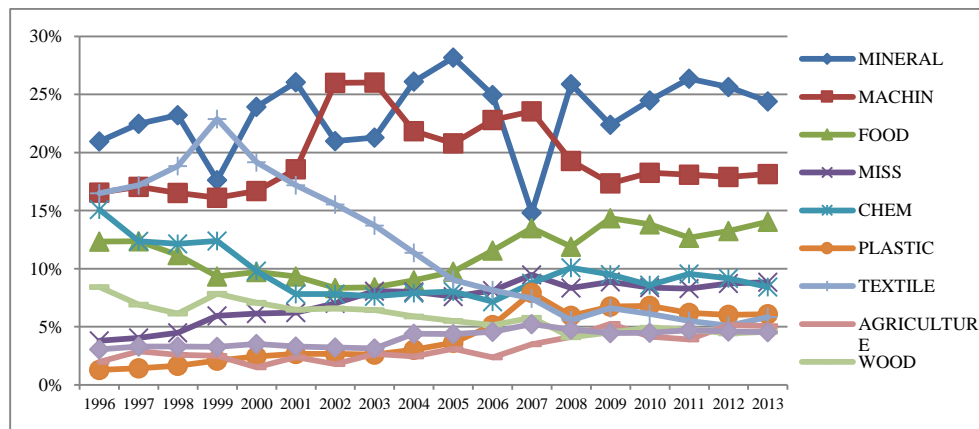


Fig.4. Lithuanian export structure during the 1996-2013 period reflected by share of overall export of indicated categories, by per cent

Source: Absolute values are provided by the Statistics Lithuania (CN2), and percentage expression of export structure and conversion of LTL into EUR computed by the authors

A close look at data presented in Fig.3 and Fig.4 lets the authors group particular goods regarding their performance during the whole period:

- According to the aspect of ‘*significant growth*’, the authors mark two groups: the first “Mach&Food” (consisting of Machin and Food groups; amounting to 1/3 of total export in 2013) and the second “Other” (consisting of Plastic, Miss, Agriculture, Wood, Metal groups; the Miss group includes such goods as furniture and other manufacturing). Fig.5 and Fig.6 present the summarized view on this assumption.
- According to the aspect of ‘*positive growth*’, the authors separate another two groups: “Chem” and “Textile”, as key Lithuanian industries in the late 20th century (details in Fig.5, 6).
- The group of exported mineral products is eliminated from the next graphical view (Fig.5, 6) because of the following assumptions: the manufacturer of mineral goods is not an equivalent player at the competitive international market, as compared to the other Lithuanian companies. The volume of the stock’s import and minerals’ export is determined only by one company “PKN Orlen”, and any structural factors mentioned before (as factor-input et al.) do not affect this volume.

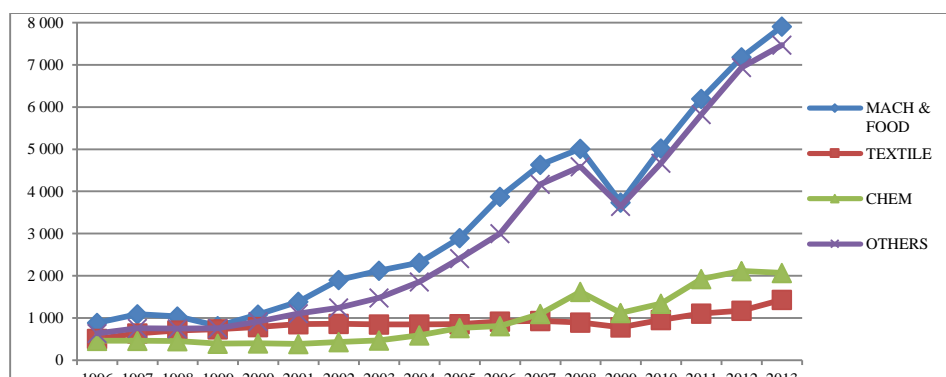


Fig.5. Lithuanian export during the period of 1996-2013 reflected by additionally summed indicated categories of exported goods by their nature, excluding mineral fuels (CN27), mln. EUR

Source: Absolute values are provided by the Statistics Lithuania (CN2), and conversion of LTL into EUR computed by the authors

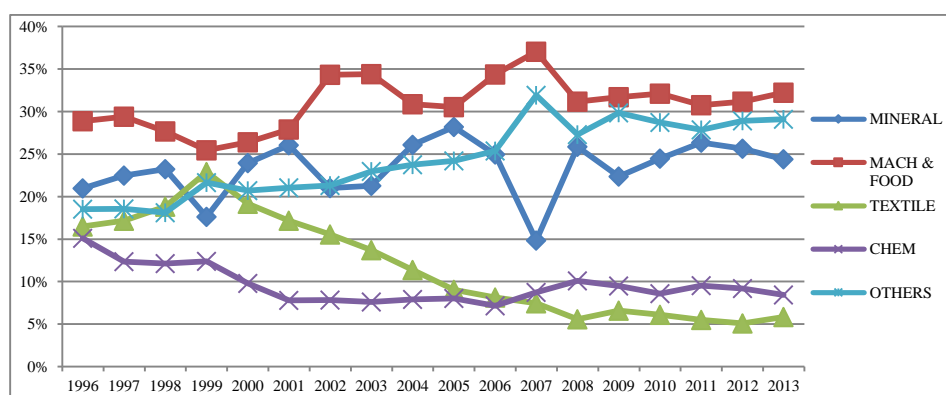


Fig.6. Lithuanian export structure during the 1996-2013 period reflected by share of overall export of additionally summed indicated categories, by per cent

Source: Absolute values are provided by the Statistics Lithuania (CN2), and percentage expression of export structure and conversion of LTL into EUR is computed by the authors

After in-depth analysis of export's structural variation by the nature of exported goods, the results indicate the following aspects:

- in "Mach&Food" group, there is *the significant increase* of their export value which is about 9 times larger during 18 years, with annual average growth rate of 15 per cent, as well as the further growth of their international competitiveness and significant share in Lithuanian export structure (1/3 of overall export in 2013);
- in "Other" group (as plastic, agriculture, wood, metal, furniture and other manufacturing goods), there is *the most significant increase* of its export value which is about 13 times larger during 18 years, with the annual average growth rate of 17 per cent, as well as the strengthening of their international competitiveness and occupation of significant share in Lithuanian export structure (1/3 of overall export in 2013);
- in "Chem" and "Textile" groups, there is *the positive increase* of their export value which is about 3 times larger during 18 years, with annual average growth of 9 per cent, as well as the weakening in their international competitiveness and loss of share in Lithuanian export structure from 1/3 in 1996 to 14 per cent in 2013.

At the first sight, the performance of groups "Mach&Food" and "Other" is mostly significant for the Lithuanian export and its competitiveness, because their share in overall export structure comprises more than 50 per cent during the whole period and presents regular double-digit annual growth with 16 per cent average growth rate, i.e. more than total EU-28 export average growth by 6 per cent for the same period (Fig.7). Facing this, it can be noted

that goods from these groups went through particular transformations concerning their ability to compete in the international markets and strengthened their international competitiveness more than the other goods. However, the demand for these goods is fluctuating: for instance, their volume increases during countries' prosperity period, and decreases during the recession time-span. Taking into consideration the high elasticity of export demand, the analysis of exported goods regarding their LT-origin and re-export aspects cannot be over-estimated.

The performance of the "Chem" and "Textile" groups has been discussed further as well. Noticeable, that its significance for Lithuanian exports becomes increasingly important during certain business cycles in Lithuania, i.e. on the initial stages of recession and during the prosperity period. In addition, the demand for these goods tends to be more constant than elastic.

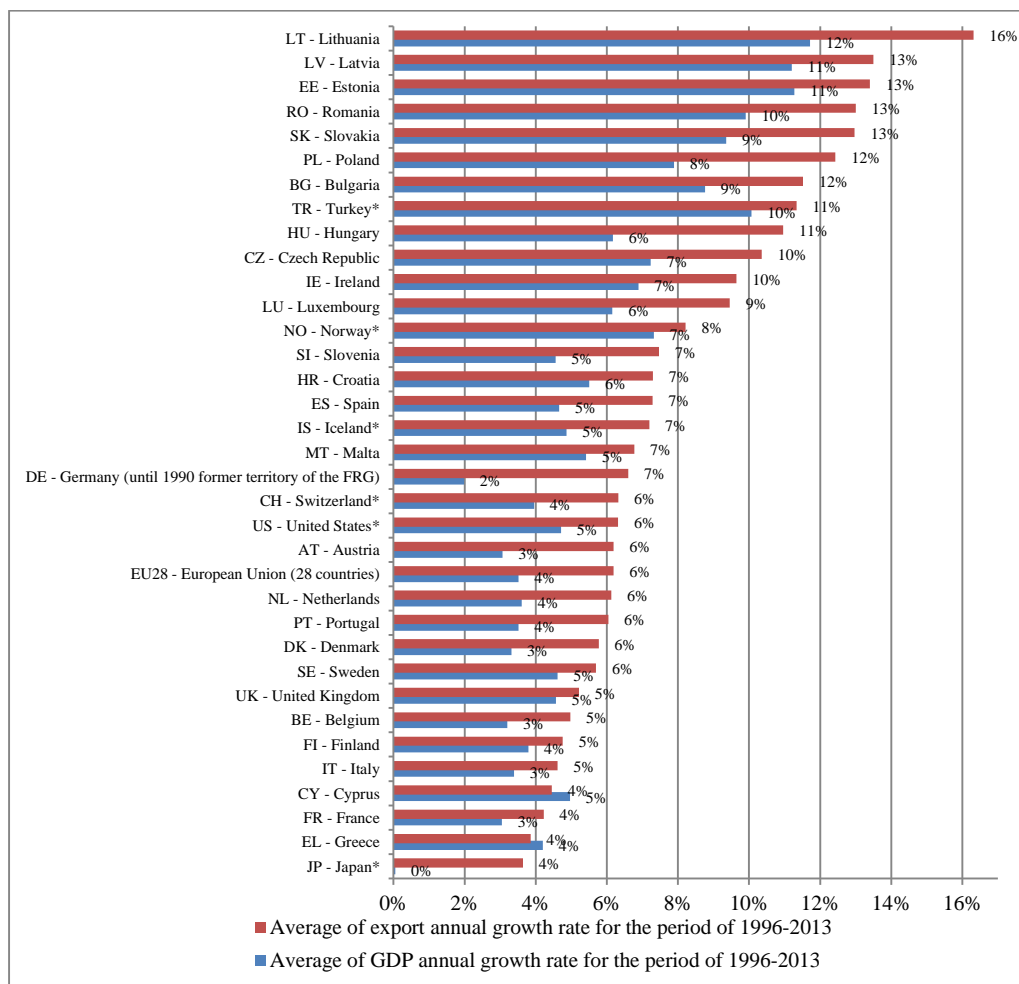


Fig.7. Annual average growth rate of GDP and export for the period of 1996-2013, by per cent

Source: Absolute values are provided by EUROSTAT, and percentage expression is computed by the authors

* - countries are not in the number of EU at the time of development of this dissertation

The conclusion the authors can draw from this review is that:

- Exported goods, which comprise more than 50 per cent of export, are as follows: food, beverages and tobacco products ("Food"); mineral products ("Mineral"), and furniture and other miscellaneous articles ("Miss"), rubber and plastic products ("Plastic"), agricultural products ("Agriculture"), wood and of products of wood, paper and paper products ("Wood"), and metals ("Metal");
- Exported goods, which comprise up to 15 per cent of export, are as follows: chemicals and pharmaceutical products ("Chem"); textiles, apparel, leather and related products ("Textile").

5. Analysis of Export Structure by Factor-Input Aspect

The classification is done based upon the typical combinations of factor inputs, incurred by industries, in order to produce goods. This classification is mainly used by EU researchers in order to gather information about differences across industries with regard to the dominant modes of building competitive advantage in specific marketplaces (Peneder 2002; European Commission, 2007-2014). In particular, the typology is directed towards distinction between:

- Exogenously given competitive advantage based on factor endowments, and
- Endogenously created advantage based on strategic investment in intangible assets such as marketing and innovation.

This classification known as the Taxonomy I was created by the Austrian Institute of Economic Research (WIFO) in a series of research projects undertaken on behalf of the European Commission in the preparation of its annual reports on European Competitiveness. Firstly this factor of Taxonomy I was applied in 1998 Competitiveness Report (European Commission 2014; Peneder 1995, 2002; Peneder et al. 1999).

The typology divides manufacturing industries at the 3-digit NACE-level in five industry types, according to the traditional factor intensity of labour and capital but also takes into account the inputs spent on research and development as well as advertising. A residual fifth category, labelled as mainstream, uses factor inputs in similar proportions with regards to the total manufacturing volumes. The five types are the following:

- Mainstream manufacturing (MM)
- Labour-intensive industries (LI)
- Capital-intensive industries (CI)
- Marketing driven industries (MDI)
- Technology driven industries (TDI)

As mentioned above, linking manufacturing structure to export structure requires sectoral classifications, which go beyond the official NACE classification. The latter basically establishes manufacturing sectors based on what they produce, while the analysis requires information on how manufacturers incorporate an input perspective into output indicators, in this instance, into exported goods.

The ratio table between international trade indicators as referred to the CN2 classification and manufacturing sectors referred to NACE-2-digit level of disaggregation, was prepared by the authors after completion of the in-depth studies of the Taxonomy I exports and annual reports on European Competitiveness.

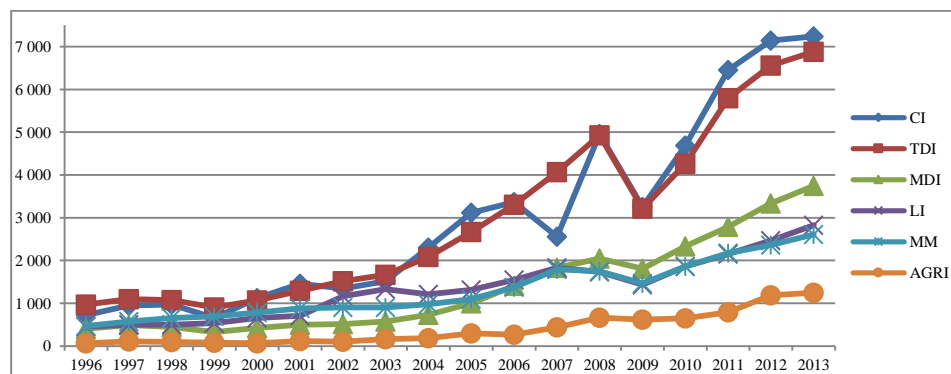


Fig.8. Lithuanian export during the period of 1996-2013 reflected from perspective of factor inputs in exported goods, mln. EUR

Source: Absolute values are provided by Statistics Lithuania (CN2), and the conversion of LTL into EUR is computed by the authors

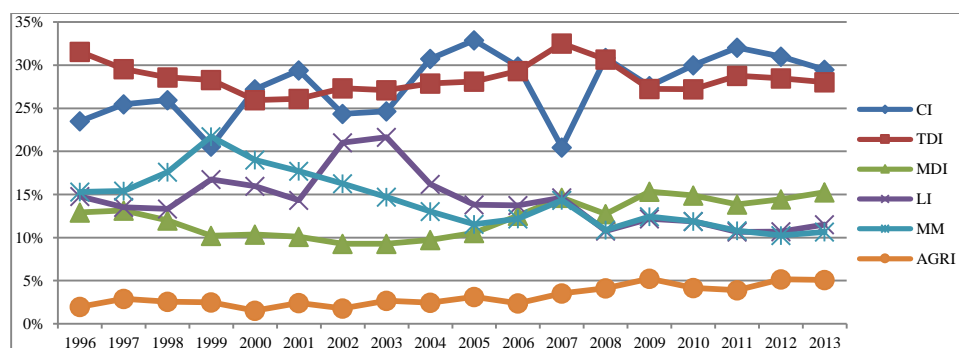


Fig.9. Lithuanian export structure during the period of 1996-2013 reflected from perspective on factor inputs in exported goods by share of overall export, by per cent

Source: Absolute values are provided by the Statistics Lithuania (CN2), and the percentage expression of export structure and conversion of LTL into EUR is computed by the authors

Figures 8 and 9 provide the initial graphical view of export structure regarding factor-input aspect: the significant share in the export structure is covered by goods produced by capital-intensive and technology driven industries. Notable that growing trend in the graph of goods produced by capital-intensive sectors is similar to the graph of mineral products' export ("Mineral") from Fig.3 (80 per cent of capital-intensive goods are mineral products by 2013). Considering the fact, mentioned before, that manufacturing of mineral products seems to be more 'monopolistic' sector, and the next graphical view presents the same export structure without mineral products (Fig.10, 11).

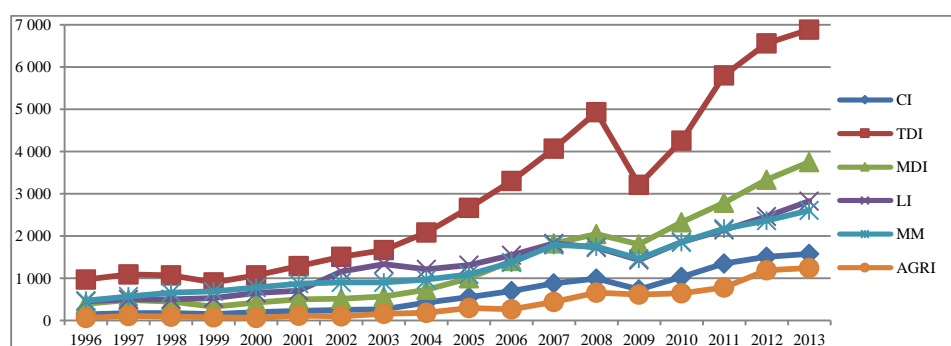


Fig.10. Lithuania's export during the period of 1996-2013 reflected from perspective on factor inputs in exported goods, excluding mineral fuels (CN27), mln. EUR

Source: Absolute values are provided by the Statistics Lithuania (CN2), and conversion of LTL into EUR computed by the authors

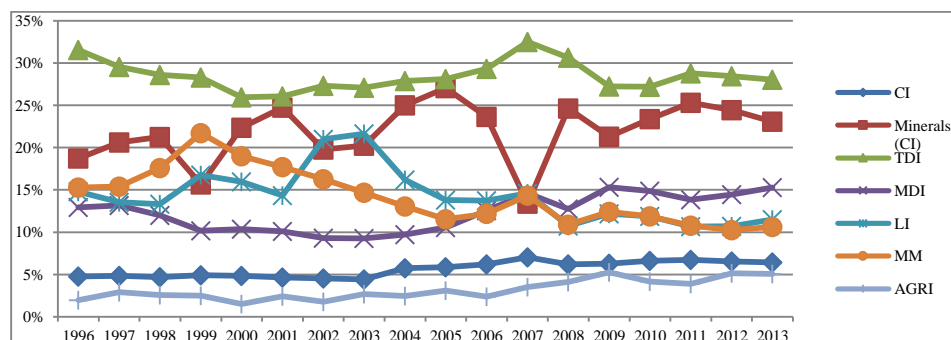


Fig.11. Lithuania's export during the period of 1996-2013 reflected from perspective on factor inputs in exported goods by share of overall export, by per cent

Source: Absolute values are provided by EUROSTAT, percentage expression of export structure and conversion of LTL into EUR computed by the authors

The elimination of mineral products from the export structure by the factor-input principle reveals a different view on the export structure: goods, produced by technology-driven and marketing-driven sectors are ‘favourites’ in export structure. Their growing demand for external markets has positive effect on the competitiveness of export. The technology-driven goods’ graph is rather similar to the “Machin” graph from Fig. 3 and 5: three fourths of the share of this group belongs to machinery, electrical and other equipment goods, and the other share – for chemical products. The group of goods produced by marketing-driven sectors also demonstrates significant growth of demand, particularly based on increase in “Food” and “Furniture” export demand.

Plastic goods, and – partially – textile and mineral goods compose the group of mainstream sectors export; a more vital part of wood, textile and furniture goods structure the group of labour-intensive sectors export. The annual average growth of exported goods produced by mainstream and labour-intensive sectors is similar to EU28 average presented above in Fig.7. The positive annual growth in manufacturing and decrease of their share in the total export structure indicate declining expansion, especially of textile products, to international markets, herewith declining competitive position of export.

The discussion therefore leads to conclusion that:

- a) The first observation, which has identified the importance of *capital-intensive* goods in Lithuanian export structure, was contradicted;
- b) Goods, produced by *technology-driven* and *marketing-driven* manufacturing sectors, i.e. machinery, electrical and other related equipment, also food, beverages and tobacco products represent a significant share in export structure. The elasticity of their export demand is quite high;
- c) The most significant elasticity of export demand is noticed in the dynamics of goods produced by *capital-intensive* sectors;
- d) Interestingly, export of *agricultural* and *labour-intensive goods* has a trend *to be marked as sustainable*, and had been as comparative competitive, supposedly, because of their specialization, which could be additionally proved by calculation and analysis of HHI index.

6. Analysis of Export Structure by Sectorial Composition

This part describes the evolution of the export structure and changes in its sectorial composition, attempting to identify the elements to examine the impacts of macroeconomic changes on the production structure, described above in part 5.

The discussions in the leading literature tend to emphasize the importance of industrial and export analysis, according to the output combinations in parallel with the factor-input perspective. On the other hand, the analysis based on sectorial composition has been used for particular, independent and commercial research, for example, aiming at identification of the HHI index for export, or seeking to determine the level of industrial specialization, etc. In this section, the sectorial composition of the export structure demonstrates to what extent the exported goods are changing: concerning commodities, traditional or technology-intensive character.

The comparative table between international trade indicators, as referred to the CN2 classification, and sectorial composition of manufacturing sectors, as referred to the NACE-2-digit level of disaggregation, was produced by the authors after in-depth scientific studies and Thomson financial security data (Rocha, Kupfer 2002).

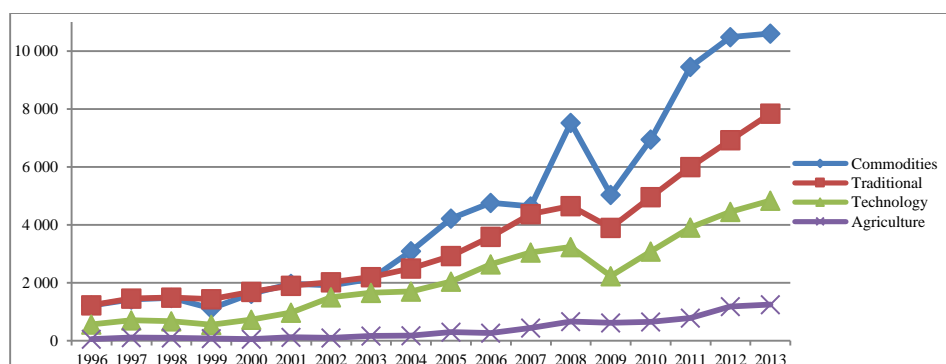


Fig.12. Lithuanian export during the 1996-2013 period reflected by sectorial composition of exported goods, mln. EUR

Source: Absolute values are provided by the Statistics Lithuania (CN2), and conversion of LTL into EUR is computed by the authors

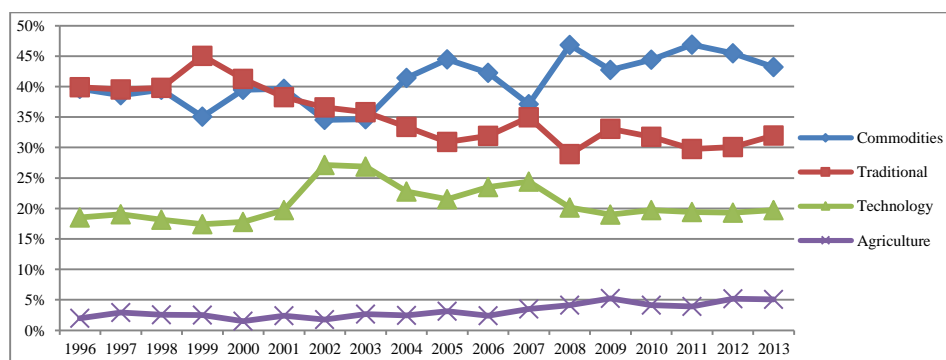


Fig.13. Lithuania's export structure during the period 1996-2013 reflected upon sectorial composition of exported goods in overall export, by per cent

Source: Absolute values are provided by the Statistics Lithuania (CN2), the percentage expression of export structure and conversion of LTL into EUR computed by the authors

A first look at the data presented in Fig. 12 and 13 illustrates the predominance of the commodities export. Its share in the overall export structure is topping during the whole period and accounts for 35-45 per cent of the overall export. The group of commodities consists of chemicals, wood, mineral and metal products. The share of goods presented by the 'traditional' sectors, such as food, textile, furniture and other manufacturing products, shows the decrease in the position by 10 percentage points during the 18-years period. It is noticeable that technology-intensive goods (mostly machinery, electrical and other related equipment) and agriculture products occupy the least, but rather stable share in the overall export.

Taking into consideration the series of research, presented in parts 4 and 5, the authors further present the following graphical view excluding mineral fuels (Fig. 14, 15).

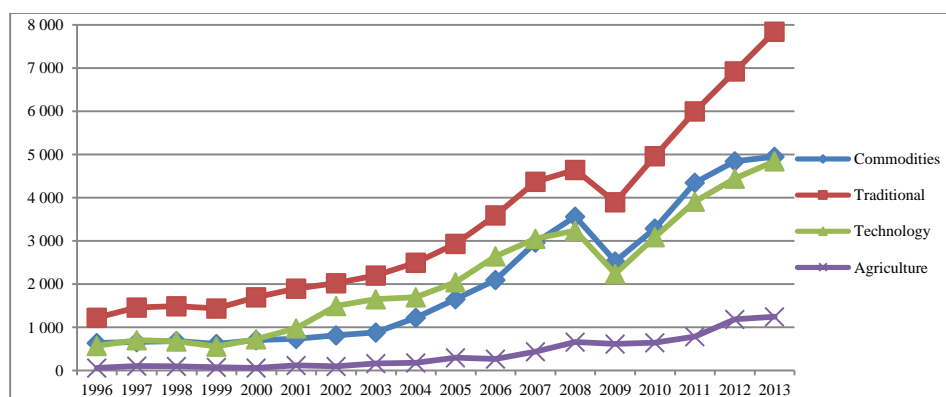


Fig.14. Lithuanian export during the period 1996-2013 reflected by sectorial composition of exported goods, excluding mineral fuels (CN27), mln. EUR

Source: Absolute values are provided by the Statistics Lithuania (CN2), and conversion of LTL into EUR is computed by the authors

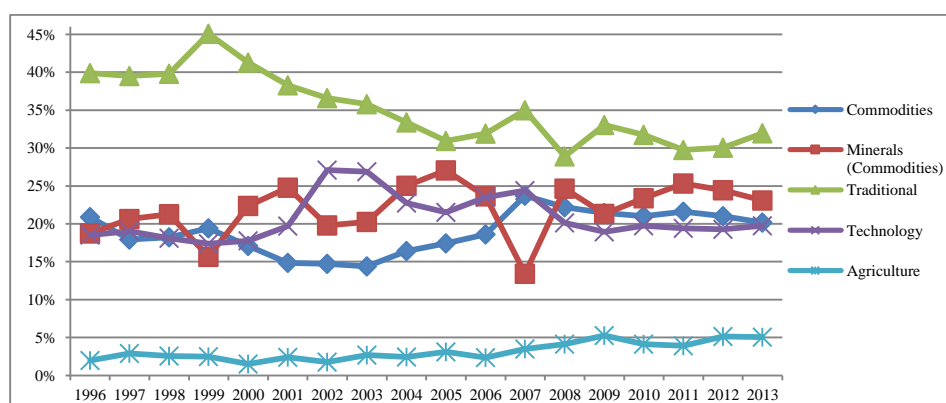


Fig.15. Lithuania's export structure during the period 1996-2013 reflected upon sectorial composition of exported goods in overall export, by per cent

Source: Absolute values are provided by EUROSTAT, percentage expression of export structure and conversion of LTL into EUR computed by the authors

Upon excluding mineral fuels, the evolution of the export structure and trends of changes in its sectorial composition was possible to examine. Notably, the most important for Lithuanian export are traditional industrial goods like food, textile, and furniture. Commodities and technology-intensive goods comprise the second significant group for export.

The performed analysis allows concluding that:

- The export structure is slowly changing from the specialised into the so called traditional industries comprising diversified structure. Today the important role goes to traditional goods, but the position of commodities and technology-intensive goods is growing.
- The classification by sectorial composition shows the high elasticity of the export of industrial goods's. The analysis presented in parts 4 and 5 had predicted this possibility, and the analysis from this part gives the evidence to the main exported goods' dependence on business cycles and the high impact of macroeconomic changes over the output structure. This assumption could be the area for further research.

Conclusions

After in-depth analysis of export's structure, the results indicate the following aspects:

- 1) The structural analysis by the nature of exported goods provided in the part 4 shows, that relation between export structure and export international competitiveness have been revealed.
 - a. The *strongest positive relationship* is between “Other” group of exported goods (as plastic, agriculture, wood, metal, furniture and other manufacturing goods) and its strengthening of international competitiveness.
 - b. The *positive relationship* is between “Mach&Food” group of exported goods and their furtherance growth of international competitiveness.
 - c. The *failing relationship* is between “Chem” and “Textile” groups of exported goods and their weakness in the international competitiveness.
- 2) The structural analysis from the factor-input perspective of exported goods provided in the part 5 shows, the country exports the significant share of goods produced by *technology-driven* and *marketing-driven* manufacturing sectors, i.e. machinery, electrical and other related equipment, and food, beverages and tobacco products. The significance of *capital-intensive* goods characterised as high elastic for export demand, was contradicted. Except, the export of *agricultural* and *labour-intensive* goods has tendency to be marked as sustainable, and has been as comparative competitive, supposedly, regarding their specialization.
- 3) The analysis of export structural evolution and of its changes in sectoral composition of output provided in the part 6 shows, export’ output structure is slowly changing from *specialised into traditional industries to diversified structure*. Today the important role has *traditional goods*. The position of *commodities* and *technology-intensive* goods is slightly growing.

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