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EDITORIAL

“Journal of Management“ is periodically published applied sciences journal by Lithuanian Business University of Applied Sciences. Journal is periodically published since 2002 and has gained a lot of experience and international recognition. It has been positively evaluated by foreign scientists and number of international scholars publishing is constantly increasing. Articles in the journal can only be published in English. Currently, 36th number of the journal is released to readers. Only those articles that meet thorough requirements set by the Editorial Board are being published. Authors of these articles represent various Lithuanian and foreign countries science. From Lithuania the following institutes are represented: Lithuania Business University of Applied Sciences, Lithuanian Maritime Academy, Vilnius Gediminas Technical University, Siauliai State College, Strategic Self-Management Institute. The following institutes from foreign countries: Szent István University (Hungary), DTI University (Slovakia), University of Western Macedonia (Greece), Giresun University (Turkey), Baltic International Academy (Latvia), Baltic International Academy (Latvia) and Sumy State University (Ukraine).

The journal provides opportunity for academics and professionals to interact and communicate in international forum. Applied research journal „Journal of Management“ Editorial Board seeks that all published articles would include foreign countries economical, business and technological environment analysis, which would benefit international audience. Articles are evaluated according to these criterion before publishing. Thus, we expect that readers will benefit from material published in the Journal and will improve their knowledge about specific areas under analysis.

Multiple articles in the journal are presented by foreign scientists. It is worth mentioning several articles, which could be interested for a broader audience. For instance, Kateřina Bočková, Gabriela Gabrhelová, Daniel Lajčín analysed life cycle specifics of educational projects financed by the European Union Structural Funds, which provides relative insights to improve management of projects. Yuri Kochetkov, Elena Sventitskaya applied a cognitive map methodology and determined the influence of the main socio-economic factors on the work of small and micro businesses. The applied methodology is based on graph theory, which provides a different approach to competitions and economy analysis. Ilona Skačkauskienė and Margarita Prokopovič analysed green technologies and their application. The researchers applied an expert interview to define the most important features of Green Technology. One of the key insights was stated as „the market situation plays a more significant role in the development of Green Technology than regional policies related to supporting such initiatives“, which provides interesting insights for researchers specializing in sustainability.

Other group of articles provided an industry analysis. Gyorgy Gonda and Maria Fekete Farkas provided fashion sector analysis from industrial and competitiveness perspective by focusing on Central and Eastern European and providing a case example of Budapest, Hungary. Saulius Lileikis and Greta Staniūtė provided an analysis from competitiveness perspective of customs brokerage company based in Lithuania, which is specializing in maritime industry. Simeon Karafolas, Konstantinos Tsioras, Maria Papadopoulou and Antonia Farmouzi analyzed the evolution of brewing during the financial crisis. Deimena Kiyak and Daiva Labanauskaite provided customer relationship management analysis of tourism sector. The listed articles shows interesting insights for particular industry management and analysis.

Other group of articles focused on analysis from human resource perspective. For instance, Rasa Grigolienė and Raimonda Tamoševičienė analysed factors influencing student choice in higher education. Samanta Štraupaitė analysed the causes of student mobility under Erasmus+ program. Ayman Alshaabani and Ildikó Rudnák analyzed diversity management and organizational climate by surveying Egyptian employees. The results indicated that diversity management practices can predict trust climate and distributive justice at the organization, especially, when it is associated with age and work experience since its impact became stronger. In practice, the results suggest for managers to give more attention toward diversity management in their companies. Kurtuluş Yılmaz Genç analysed traits of entrepreneurs.

It is worthy to note that this issue of the journal provided reviews of two monographs "Macroeconomic stability of the national economy" and "Marketing and Management of Green Investment: Theoretical Foundations, Current Challenges and Development Prospects", which are published in Ukraine, and doctoral dissertation review titled „Influence of Innovation Process on the Competitiveness of the Latvian Shipbuilding Industry“.

We encourage familiarizing with them in the Journal, which currently is under the indexing process with Scopus and WoS.

We invite scientists to actively publish in the Journal, share their research results and methodological insights. We expect for close cooperation.

Dr. Valentas Gružas



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IMPACT OF DIVERSITY MANAGEMENT PRACTICES ON ORGANIZATIONAL CLIMATE – AN EGYPTIAN STUDY

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Abstract

This study aimed to find out which practices of diversity management can predict organizational climate, furthermore, to determine whether any demographic variable can influence the relationship between diversity management practices and organizational climate. The research questionnaire was designed and distributed to Egyptian employees working in big multinational organizations using snowball and convincing sampling methods. The results showed that not all diversity management practices (recruitment, awareness, and diversity policy) could predict trust climate or distributive justice; on the other hand, age and work experience could predict the relationship between the studied variables. Although gender had an impact on this relationship, it was not significant. These results provided a spotlight on the effects of a few diversity management practices on two of the organizational climate elements, also showing which of the demographic variables can have an impact on this relationship. This thing will be necessary for researchers who wish to focus on Egyptian literature on this topic or for managers who seek to apply diversity management practices at their companies.

KEYWORDS: diversity management practices; trust, distributive justice; age; gender; diversity policy; diversity recruitment.

Introduction

Employees are becoming diverse due to a variety of traits, which include but not limited to their cultural background, race, ethnicity, religion, sexual orientation, or any attributes that one person can have (Grobler & Wörnich, 2002). The organizations' workforce is becoming more and more diverse as a result of; the fast-changing in the demographic characteristics of the labor market, the world shrunk and grew as a global village which leads to accelerated competency, the increased interest by the government for putting more legislations toward diversity and minorities, finally, the continues seeking from organizations for attaining and retaining talented employees regardless any unique characteristics like ethnicity or race (DeNisi & Griffin, 2007).

This diversity created a 'double-edged sword' for organizations since it can yield both positive and negative outcomes (Milliken & Martins, 1996). Diversity at any organization creates a competitive advantage by improving creativity and decision making (Foster & Harris, 2005) and innovation (Agu & Fekete-Farkas, 2016). Organizations are seeking diversity for adding more positive and business-oriented approaches that enhance and improve business results in their workplace (Stuber, 2007). Thus, there are significant advantages to having a diverse workplace environment.

The friendly workplace environment encourages the employee for working efficiently, when the conditions of work are provided optimally for the employees, and they do not feel discriminated at the workplace, that help them to adjust well and enhance their retention, More loyal and attached employees to their companies mean

saving the costs of training that their companies expenses (AlShubaily, 2016). It was found that a diverse workplace can improve employees' performance, turnover, decision making, and productivity (Lumby et al., 2005) creates different alternatives in decision making and creative ideas (Gajjar & Okumus, 2018). However, a diverse workplace, on the other hand, can make an adverse workplace climate; it can lead to evil communications, low levels of social integration, turnover, conflicts, and segmentation (D. W. Pitts, 2006).

Hence, these advantages and disadvantages of diversity influenced organizations and researchers alike to draw more attention toward the importance of diversity management. Managing diversity can lead to different outcomes related to workplace climates such as trust climate (Downey, van der Werff, Thomas, & Plaut, 2015). Organizational justice (Aldaibat et al., 2019), innovation and creativity (Bassett-Jones, 2005) and individual attachment (Gonzalez & DeNisi, 2009) these outcomes, in turn, will affect the organization positively from a wide range of aspects, such as improved organizational productivity, job satisfaction and employees engagement (Alshaabani & Benedek, 2018; Downey et al., 2015; Gonzalez & DeNisi, 2009; Kim & Park, 2017).

Therefore, managers need to understand the importance of managing diversity at the workplace in order to achieve these outcomes. It was noticed in literature that the topic of diversity management and its impacts on organizational climate had been studied widely, however, the literature which focuses on the

middle eastern context in general and the Egyptian context especially is shallow, although Egypt has turned out to be a significant location for many international companies.

In this regard, the study is trying to answer the main question: “how can diversity management practices affect the workplace’s organizational climate in the Egyptian context.”

The study tries to achieve two goals:

- (i) Determine which diversity management practice has impacted more on trust climate and distributive justice?
- (ii) Find out whether demographical variables can predict the relationship between diversity management practices and organizational climate.

The labor market in Egypt has significant diverse characteristics between its employees; according to (CAPMAS - Central Agency for Public Mobilization and Statistics) report, the number of foreigner employees working in the Egyptian private sector reached 14.045 in 2016 (most of them are Asians) with growth 1.1% compared to 2015. The same report indicated that the majority of the Egyptian employees working in Egypt are males (nearly four doubles of females), in addition to significant differences in generations between these employees. The leading age group of employees in Egypt is between 20 to 25 (Bruni & CAPMAS, 2017). It can be noticed that diversity exists in Egyptian companies and on different levels; therefore, diversity management practices are very important for these companies if they want to overcome the problems that they might face and to achieve the positive outcomes of diversity. So, this study tries to focus more on the Egyptian employees and the impact of diversity management practices on the organizational climate in the Egyptian companies. The thing which will fill the gap in the literature related to managing diversity practices in the Egyptian context and to managers who might be interested in understanding the importance of diversity management and its outcomes.

Literature review

Diversity management practices

There are many definitions of diversity management. However, for the purpose of this study, we will use the definition of (Cox, 1994, p. 15) who defined “managing diversity” as “planning and implementing organizational systems and practices to manage people so that the potential advantages of diversity are maximized while its potential disadvantages are minimized,” from this definition it can be noticed that diversity management help the human resources management of organizations in achieving positive outcomes and reducing the negative effects of diversity at workplace.

Human Resources managers have understood the importance of having an effective diversity management practices for overcoming the difficulties related to diversity and reaping the rewards of a diverse workforce. The scholars have found that diversity management practices can help in achieving positive

performance outcomes, addressing inequality in (recruitment, appraisal, advancement, and rewards) (D’Netto, Shen, Chelliah, & Monga, 2014). It was also found, a positive relationship between diversity management practices and the employees’ behaviour Such as; employees’ engagement (Alshaabani & Benedek, 2018), citizenship behaviours (Shen, D’Netto, & Tang, 2010), employees’ loyalty (Hemang & Shailendra, 2013).

However, These effects of diversity management practices are not only related to the behaviours of the employees but also to the workplace climate such as trust climate (Downey et al., 2015) Organizational justice (Aldaibat et al., 2019), innovation and creativity (Bassett-Jones, 2005) organizational structure

Organizational climate

The concept of the workplace or organizational climate as a concept has gained the attention of many scholars since the 1980s (Dawson, González-Romá, Davis, & West, 2008). It is related to the employee perceptions about supervisors’ or leaders’ behaviours inside a specific organization. The employees’ attitudes toward their leaders’ or supervisors’ abilities for managing and retaining an organization’s productive workforce are the key element for the continued growth of the organization (Abraham, 2019). Organizational climate is based on an idea that considers that employees’ perceptions about their organization’s work environment are the measure for considering an organization as good (Kanten & Ülker, 2013). According to Bowen and Ostroff (2004, p. 205) “Organizational climate is a shared perception of what the organization is like in terms of practices, policies, procedures, routines, and rewards- what is important and what behaviours are expected and rewarded- and is based on shared perceptions among employees within formal organizational units.”

Organizational workplace climate has different effects on employees’ behaviours; for instance, positive workplace climate directly affects positively the training transfer which it may help to increase the organization’s return on its investment (Martin, 2010), a strong relationship was found between positive organizational climate and the employees’ work passion and their commitment in their organization (Permarupan, Mamun, Saufi, Noor, & Zainol, 2013), it also leads to improve the employees’ engagement (Ancarani, Mauro, & Giammanco, 2019; Chaudhary, Rangnekar, & Barua, 2014). Organizational climate mediates the relationship positively between leadership outcomes and organizational strategic planning (Abraham, 2019).

Burton and Obel (1998) mentioned that organizational climate has seven different dimensions; trust climate, employee morale, conflict management, rewards fairness, the levels of scapegoating, leader credibility, and resistance to change.

Organizational justice

Organizational justice refers to the degree that employees compare their situation with their peers’

situation at a workplace, or a person's perceptions and reactions toward fairness in an organization, which in turn affects their attitudes and behaviours at work (Masterson, 2001). The exchanged theory is the basis of organizational justice, and it is seen as linked with motivation (Jang, Lee, & Kwon, 2019). The literature of organizational justice specifies three dimensions of justice: distributive justice, procedural justice, and interactional justice (Cugueró-Escofet & Fortin, 2014). Procedural justice concerns with the perceived fairness of the process that lead to outcomes (i.e., the perceived feeling by employees toward the fairness of decision-making procedures at the workplace); distributive justice, which refers to the fairness of distributing resources and outcomes of decisions; finally, interactional justice, which can be divided into informational and interpersonal justice, focuses on the social aspects (i.e., quality of treatment) (Berthelsen, Conway, & Clausen, 2018; Girish, 2015).

As it was mentioned previously, distributive justice is dealing with rewards and the degree of fairness in its distribution; thus, we thought that this dimension of organizational justice would be the best to explain the effects of diversity management on workplace fairness' climate-related to rewards.

Trust climate

Trust is considered a crucial part of organizational climate that employees perceive, based on personal understanding for the internal workplace climate's trustworthiness (Costigan, Iiter, & Berman, 1998), it is considered as an important tool for a positive exchange relationship (Gould-Williams & Davies, 2005). It was defined as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer, Davis, & Schoorman, 1995, p. 712); while (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395) described it as "psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another."

Trust can be distinguished into three levels: (I) trust with supervisor (II) trust with the organization; (III) trust with colleagues (Fulmer & Gelfand, 2012). This distinction is important since there are many differences between these levels.

The impact of trust climate on the organization and employees have been widely studied in different aspects (Renzl, 2008) found that trust in management improves knowledge sharing by reducing the fear of losing one's unique value and from enhancing the person's willingness to document knowledge. Trust climate has been found as an essential effector for a variety of organizational employee's behaviors and attitudes, such as; organizational commitment, stress, job satisfaction, productivity, and turnover intentions (Dirks & Ferrin, 2002; RM, 1999). Moreover, it was shown that trust climate associated negatively with counterproductive behaviors and positively with organizational citizenship behaviors, job performance, and employees'

engagement (Alshaabani & Benedek, 2018; Wang, Wang, & Li, 2019). These positive impacts require proper organizational management that applies practices to build trust between the organization and its employees since the management of an organization directly affects trust at the workplace (Davis, Schoorman, Mayer, & TAN, 2000). Therefore, the scholars in organizational theory have recognized the need for extending the current knowledge about trust climate and the circumstances under which trust can be created and improved because trust creates benefits for both organizations and employees alike.

After reviewing the literature, we could notice that the trust climate was not widely studied in the Middle Eastern context, so we preferred to focus only on it in this study because of the resource's limitation. Consequently, the focus of this study will be on only two dimensions, which are distributive justice and trust climate.

Research framework and hypotheses

Diversity management practices and organizational justice

Understanding the variations among the employees is the main focus of diversity management, also, understanding how to manage these differences in more effective and efficient ways (Deepak & Perwez, 2019) since the actions that are done by the organization are the main influences for building the perception of justice inside the organization, it is important for any human resources management to adopt a strategy to manage the workforce diversity and bring the best out of it (Barrett, 2012). Adopting a decision making process that achieves the basic principles of organizational justice can be considered as a cause for having effective diversity management (Fujimoto, Hartel, & Azmat, 2013).

Choi and Rainey (2013) have mentioned that organizational fairness can help in enhancing the outcomes of diversity management; when organizational fairness perceived at higher levels, the diversity's efforts for achieving higher levels of job satisfaction were more effective. Kim and Park (2017) have indicated that diversity management is influencing the perception of organizational fairness within the organization positively.

Moreover, diversity management leads to improved organizational justice at the workplace (D. Pitts, 2009). The policies of diversity management, like diversity awareness training, pay and rewards systems, performance appraisal, and career development has a positive impact on organizational justice, in the three dimensions, in the Jordanian organizations (Aldaibat et al., 2019). Organizations that promote effective diversity management practices in their process of recruitment and selection are more likely to attract prospective applicants, especially by minorities group and women (Avery & Mckay, 2006; D'Netto et al., 2014).

In the same context, scholars suggested that promoting policies related to equal opportunity in the

procedures of selection reduces the feeling of discrimination and perceived unfairness, increases the perception of justice, and generates a positive climate for diversity (Subhash, Archana, Jahanvi, & Sandeep, 2019).

Therefore, we assume that:

H1: There is a statistically significant relationship between perceived diversity recruitment policy and distributive justice at level ($\alpha \leq 0.05$).

H2: There is a statistically significant relationship between perceived diversity awareness and distributive justice at level ($\alpha \leq 0.05$).

H3: There is a statistically significant relationship between diversity policy on distributive justice at level ($\alpha \leq 0.05$).

Diversity management practices and trust climate

Whitener (1997) has mentioned that positive human resources activities can find a situation where a group of employees or even individuals have the feeling of obligation toward reciprocating with positive attitudes, including trust. In particular, these activities aim to enhance communication and to empower employees to develop their skills and building supportive relationships. Human resource practices can enhance many organizational climate traits such as reward equity, organizational morale, trust climate (Gould-Williams, 2007), trust climate mediates the relationship between human resource practices and organizational outcomes (Collins & Smith, 2006). Literature reveals a clear link between trust climate, employee well-being, and their organizational performance since the employee's performance basically depends on different aspects such as performance appraisals, payments, trust climate, job satisfaction, training and development, organizational structure, and motivations (Tzafirir, Baruch, & Dolan, 2014).

In a diverse workplace, where differences within the workforce members can be salient, the high level of uncertainty and vulnerability that comes with the interpersonal cooperation makes trust an important element for cooperation and employee well-being (Downey et al., 2015).

Trust mediated the relationship positively between diversity management practices and employee engagement (Alshaabani & Benedek, 2018; Downey et al., 2015). It also mediates the relationship between perceived diversity climate and team members and between perceived diversity climate and work teams (Hofhuis, van der Rijt, & Vlug, 2016) managing diversity climate can significantly be related to trust in communications (Singh, Winkel, & Selvarajan, 2013). Another research suggested that trust feelings and comfort at the workplace are related to the ability of and organization to manage diversity (Purdie-Vaughns, Steele, Davies, Dittmann, & Crosby, 2008).

Diversity management practices, such as training programs or recruitment policies, can have an important role in improving the trust climate at the workplace (Alshaabani & Benedek, 2018). Also, it was found that

having an equitable career development influence the trust between the employees toward their organization (Crawshaw & Brodbeck, 2011). On the other hand, opening for diversity, which is an attitude of diversity awareness (Sawyer, Strauss, & Yan, 2005), is associated positively with trust and negatively with conflict within teams (Lauring & Selmer, 2015). Therefore, we assume that:

H4: There is a statistically significant relationship between perceived diversity recruitment policy and trust climate at level ($\alpha \leq 0.05$) in the Egyptian companies.

H5: There is a statistically significant impact of perceived diversity awareness and trust climate at level ($\alpha \leq 0.05$) in the Egyptian companies.

H6: There is a statistically significant relationship between perceived diversity policy on trust climate at level ($\alpha \leq 0.05$) in the Egyptian companies.

In the Egyptian context, the literature showed a shallow amount of studies regarding diversity management in the Egyptian context. (Elsaid, 2012) has tried to study the relationship between some diversity dimensions from surface level (such as gender, age, educational background) and the variance in employee's performance, the findings have shown that the educational background of the employee can determine his job performance whereas the age was not affecting this relationship. Mousa and Alas (2016) have studied the relationship between cultural diversity and organizational commitment, and they found that not all challenges of cultural diversity have a positive effect on the organizational commitment approaches. Badran and Khalifa (2013) have applied their study in the Egyptian hotel industry, and they have found that diversity culture, Human resources practices and the outcomes of diversity have a significant positive impact on the employees' satisfaction. Alshaabani (2019) has found that implementing diversity management practices in Egypt has a relationship with the leadership style of human resource managers.

H7: gender, age, and work experience predict the relationship between diversity management practices and distributive justice significantly.

H8: gender, age, and work experience predict the relationship between diversity management practices and trust climate significantly.

Research method

Data and measurement

A questionnaire was designed and distributed to 373 Egyptian employees working in big multinational companies in different industrial sectors in Egypt. The number of returned questionnaires was 237 suitable for statistical analysis, with a response rate of 63.6%. The sample of this study was collected with snowball methods and a convenience method of collecting samples. The data was collected between the end of 2018 to April 2019.

The questionnaire was sent online as an electronic form consisting of 25 items to study the three variables through 3 sections (diversity management practices, trust climate, and distributive justice).

The first section was about diversity management practices, and it was developed from (Downey et al., 2015) and from the researcher. It contained ten items, and the respondent could choose from a scale from 1 to 5 (1= strongly disagree, 5=strongly agree), a sample from the questions, includes " Recruitment of diverse job candidate is a priority at the company" " Diversity is a priority for the leadership." The last section was about distributive justice, which was adopted (Al-Zu'bi, 2010) and consisted of 5 items. The respondent could choose from a scale from 1 to 5 (1= strongly disagree,

5=strongly agree). Sample from the items includes: "My work schedule is fair," "Overall, the rewards I receive are quite fair."

After collecting data, the normality test for metric variables was conducted to check their normality, and the alpha Cronbach test was carried out to check the reliability of the hypotheses. The reliability test exceeded 70% for each variable, which is an acceptable percentage. Descriptive analysis (Table 1) was done for the results; correlation analysis and hierarchal multiple regression analysis were used for analyzing the results.

Table 1. Descriptive Statistics, Reliability and Pearson Correlations (N=237)

Variables	M	SD	1	2	3
DMP	3.29	0.70	(.79)		
Trust Climate	3.34	0.71	.263**	(.85)	
Distributive justice	3.17	0.89	.113*	.518**	(.82)

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

* Correlation is significant at the 0.05 level (2-tailed).

The demographic characteristic of the sample

The first part of the questionnaire consisted of collecting data about some demographic variables like, and it was as follows: **Gender**, the employees were asked to fill their gender male or female. The male's

percentages were 57.1%. **Work experience**, most of the participants were having (1 to 3 years) of experience followed with (3 to 5 years). **Age groups**, the majority of the employees who filled the questionnaire were between (20 to 29 years old). Table (2) shows these percentages in a more precise way.

Table 2. Demographic data of the sample study (N=237)

Demographic variables	Item	Count	Percentage %
Gender	Male	137	57.8
	Female	100	42.2
Work experience	less than 1 year	33	13.9
	1-3 years	65	27.4
	between 3 to 5	64	27
	between 5 to 10	56	23.6
	above 10	19	8
Age	Between 20 -29	148	63
	Between 30-39	68	28.9
	Between 40- 49	14	6
	Older than 50	5	2.1

Results

Factor analysis was performed with one as the Eigenvalue to improve the strength of the factors. The analysis extracted a three-factor solution when the

rotation converged in their iteration. The three factors were perceived recruitment policy, perceived awareness training, and career development. Out of 10 items, there were four items for perceived **recruitment**, four items for perceived **diversity awareness**, and two items for perceived **diversity policy** (Table 3).

Table 3. Rotated Component Matrix

No.	Item	Component		
		1	2	3
1	Recruitment of diverse job candidates is a priority at the company.	.090	.789	.029
2	There is organizational support for diversity-related events.	.280	.783	-.016-
3	Diversity is a priority for the leadership.	.059	.662	.351
4	Diverse job candidates are actively recruited when an opening exists at the organization.	.396	.519	.114
5	The organization welcomes and accommodates the different needs of all staff.	.697	.191	.161
6	I am aware of the organization's procedures to follow it when I'm harassed or believed that I have been discriminated against.	.523	.013	.446
7	Top management is giving the same interest for the opinion of all employees in the organizations.	.823	.081	.138
8	Performance appraisal is based on equality in evaluation for all employees in the organization.	.782	.132	.032
9	Having a career development path for all employees at this company affects my future.	.047	.071	.799
10	I am interested to know more about the best methods for dealing with the diverse workplace.	.232	.140	.711

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 5 iterations.

The analysis extracted a three-factor solution, each with Eigenvalues above one, which explains 59.06%. This indicates that there could be more factors influencing diversity management practices when more items are generated using expert opinion and previous literature. The KMO (Table 4) was 0.79 indicating an acceptable level (Kaiser & Rice, 1974) according to Bartlett's test for sphericity was significant ($\chi^2 =$

581.391, $p < 0.001$), so, based on what was mentioned before, we could say that **the three factors are accepted as a variable for diversity management practices**. The Cronbach alpha for the three factors of diversity was (0.70 for the first factor, 0.79 for the second and 0.68 for the third one) which are acceptable percentages according to (Sekaran & Bougie, 2016).

Table 4. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.789
Bartlett's Test of Sphericity	Approx. Chi-Square	578.088
	df	45
	Sig.	.000

For examining the relationship between diversity management practices, demographic variables, and trust climate, correlation and hierarchical regression analysis were employed and the same methods for this relationship with distributive justice.

Before applying a hierarchical multiple regression, the relevant assumptions related to this statistical analysis were tested, firstly, the sample size was 237 was deemed adequate given six independent variables to be included in the analysis, it is recommended 98 participants as a suitable number via the formula: $N > 50 + 6m$ (where m is the number of variables) (Green, 1991). intercorrelations (see table 5) showed no variables are highly correlated to each other. The

collinearity tests indicate that the data met the assumption of no multicollinearity (Coakes, 2011; Hair, Sarstedt, Kuppelwieser, & Hopkins, 2014) (Gender; Tolerance=.842, VIF=1.18) (Age; Tolerance=.79, VIF= 1.26) (Work experience; Tolerance= .69, VIF=1.44) (Recruitment; Tolerance= .758, VIF= 1.32) (Awareness; Tolerance=.721, VIF= 1.38) (Policy; Tolerance= .82, VIF= 1.21) as it can be noticed, all were in the accepted limits. Moreover, an examination of Mahalanobis distance scores indicates two multivariate outliers (>22.46 for six variables), so they were eliminated. Furthermore, the data met the assumptions of independent errors (Durbin-Watson =1.97) Residual and scatter plots indicated the assumptions of normality,

linearity, and homoscedasticity were all satisfied (Hair et al., 2014).

The three variables of diversity management practices were used as independent variables. In addition to age, gender, and work experience as controlling variables, to predict the relationship with distributive justice and trust climate as dependent

variables. A two steps hierarchical multiple regression was conducted with trust and distributive justice separately as dependent variables. Age, gender, and work experience were entered as step one. Perceived recruitment, perceived diversity awareness, and diversity policy were entered in the second step.

Table 5. Intercorrelations Between Scales and Subscales (N=235)

	Gender	Age	Work experience	Recruitment	Diversity awareness	Diversity policy	Trust climate	Distributive justice
Gender	1							
Age	-.046	1						
Work experience	-.368**	.425**	1					
Recruitment	-.003	.150*	.081	1				
Diversity awareness	.038	.095	-.003	.459**	1			
Diversity policy	.121	.036	-.066	.297**	.383**	1		
Trust climate	.088	.116	-.137*	.090	.246**	.367**	1	
Distributive justice	.180**	.184**	-.092	-.019	.139**	.207**	.508**	1

N=235, ** p<0.01, * p<0.05

Diversity management practices and distributive justice

A hierarchical regression analysis was done to analyze the effects of perceived diversity management practices (recruitment, awareness, and policy) on distributive justice. As can be seen in (Table 6) the first step of regressions was consisting of age, gender, and work experience, in the second step, three variables were added which were (perceived recruitment, perceived awareness, and perceived diversity policy). The overall regression model predicted approximately 13.4% of the variance in distributive justice (R²=.134, F

(6,228) = 5.88, p<0.001). Age and work experience only were significant, and they predicted nearly 10% of the variation in distributive justice. After controlling for age, gender, and work experience, step two predicted nearly 4.9% of the variance in distributive justice. Perceived recruitment policy is significantly predicting distributive justice negatively. On the contrary, perceived diversity policy was a significant positive predictor of distributive justice. Although it was found that perceived awareness is not significantly predicting the perceived distributive justice, with higher perceived diversity awareness, better perceived distributive justice can be gained.

Table 6. Regression analysis showing age, gender, work experience, perceived recruitment, diversity awareness, and perceived policy as predictors of distributive justice

Variables	Cumulative		Simultaneous	
	R ² change	F change	β	P
Step 1				
Age	0,085	F (3,231) = 7.16*	.251	0.001
Gender			.120	0.084
Work experience			-.132	0.05
Step 2				
Recruitment	0,049	F (3.228) =4.287**	-.144	0.04
Awareness			.110	0.132
policy			.178	0.010

* $p < 0.001$, ** $p < 0.01$

Diversity management practices and trust climate

Table (7) provides the hierarchical regression analysis results for perceived diversity management

Table 7. Regression analysis showing age, gender, work experience, perceived recruitment, diversity awareness, and perceived policy as predictors of trust climate

Variables	Cumulative		Simultaneous	
	R^2 change	F change	β	P
Step 1				
Age	0,056	F (3,231) = 4.552*	.185	0.006
Gender			-.299	0.765
Work experience			-.194	0.007
Step 2				
Recruitment	0,135	F (3.228) = 12.72**	-.083	0.225
Awareness			.144	0.042
policy			.320	0.001

* $p < 0.005$, ** $p < 0.001$

The same previously mentioned steps in distributive justice were applied. The overall regression model predicted approximately 19.1% of variance in trust climate ($R^2 = .191$, $F(6, 228) = 8.983$, $p < 0.001$). Age, gender and work experience predicted nearly 5.6% of the variation in trust climate. After controlling for age, gender and work experience step two predicted nearly 13.5% of the variance in trust climate. Perceived diversity policy and diversity awareness were significantly predicting the trust climate positively. Even though it was found that perceived recruitment is not significantly predicting the trust climate, more perceived recruitments policies were found associated with a lower level of trust.

Discussion

This study examined the relationship between diversity management practices and trust climate and distributive justice. The results indicated that not all the studied diversity management variables could predict distributive justice; both perceived recruitment policy and perceived diversity policy predicted it however, perceived diversity awareness was not predicting distributive justice. Despite that, the study also found that diversity management practices as a model predicted the perceived distributive justice significantly especially when considering the controlling variables such as age and work experience. These findings align with the findings of (Aldaibat et al., 2019 ; Kim & Park, 2017) the consistency may suggest that when employees perceived diversity management practices (recruitment and policy) this will be reflected in their perceptions toward distributive justice.

the same way, the results showed that diversity management practices model was significantly predicting trust climate precisely perceived diversity policy and perceived diversity awareness can predict trust climate. Like distributive justice not all diversity management practices could predict the trust climate namely, diversity awareness and diversity policy. These

practices (recruitment, awareness, and policy) and trust climate in addition to the controlling variables.

finding line up with (Alshaabani & Benedek, 2018; Downey et al., 2015; Purdie-Vaughns et al., 2008). The imperial results may suggest that when employees perceived diversity management practices (awareness and policy) this will be reflected in their perceptions toward trust climate.

On the other hand, demographic variables were used as controlling variables predicting the distributive justice and trust climate, the result showed that both age and work experience can predict the distributive justice and trust climate; the more employees get older the more they are going to perceive trust climate and distributive justice, however, the more experience at work the employees have the less trust climate and distributive justice they perceive. Therefore, all hypotheses of the study were proved except the second the fourth ones, while hypotheses seven and eight were partially proved since gender didn't have any significant impact on the relationship between diversity management practices and both trust climate and distributive justice.

Conclusions

There has been a growing recognition of the importance of diversity management practices on workplace climate which in turn has different effects on the organization's performance. Therefore, this study aimed to investigate the relationship between diversity management practices. The study hypothesized that diversity management practices predict employees' perceptions toward trust climate and distributive justice. The results indicated that diversity management practices can predict trust climate and distributive justice at the organization, especially, when it is associated with age and work experience since its impact became stronger. Moreover, age and work experience were predicting the trust climate and distributive justice.

This finding of the study has both theoretical and practical implications, the scientific contribution of the paper is a filled literature gap in the relationship between

diversity management practices and trust climate and distributive justice. Although these topics are common in the international context, however, for Middle Eastern and Egyptian context it can be considered a new study that may be interesting for both academicians and managers in Egypt who would like to initiate diversity management practices at their organizations and would like to create a positive workplace climate. In practical, the results suggest for managers to give more attention toward diversity management in their companies. Diversity training, recruitment, and policies each one has a special relationship with the trust climate and distributive justice the good manager employ these practices to achieve the desired results, with considering the age and work experience of their employees.

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TRENDS IN FASHION RETAIL - GLOBAL EXPANSION AND CENTRALIZATION OF THE MOST COMPETITIVE PLAYERS

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Abstract

This paper focuses on the situation of fashion retail sector in the Central and Eastern European countries and examines the changes in the sector after the transition from central plan to market economic system. In addition to providing an overview of the strong concentration processes in Western European fashion trade, our results show that in the Central and Eastern European countries these processes have been completed much faster. The domestic fashion retail companies have been facing strong competition arising from both the Western and Asian countries which has brought a structural change in the sector in the past two decades. In this paper we show a snapshot of the current situation of the brands' occupation in the Hungarian premium retail locations. We find that the majority of the leading, top 20 global fashion networks are present and dominate the market in Hungary. We have identified the integration of the whole supply chain, the rapid reaction to customer demand changes and innovation as major competitive factors. The conclusion drawn from the study is that in this highly competitive area where the new international comers are dominated only those retail stores can survive, which have long experience in this business area, has own production background and are open to innovative solutions.

KEY WORDS. fashion retail, shopping streets, concentration, globalization.

Introduction

The modern fashion industry acknowledged by brands and names of the creators, started in the 19th century when designers sew his/her label into the garments for the first time. Due to the industrial revolution, the manufacturing of confectionary began in the 19th century already and from that time the clothing was not necessary tailored for the clients made-to-measure.

From the mid of this century, the Haute Couture came alive in Paris. The famous fashion designers created their art works for the Western consumers and inspired other designers' works in the other parts of the world (Steele, 1988; Ochkovskaya, 2018).

After the world wars, the great designers showed up in the West; Dior, Yves Saint Laurent, Balenciaga, Givency and Chanel drove the demand in the luxury fashion among other great names. While economies started booming in the West, communism arrived to the East. (Simonics, 2015). In the socialist block, the communist ideology expressed equality and collectivization, and fashion had no role apart from creating cheap, and accessible wear for everyone. The 70's brought some changes, the socialist system allowed the fashion to function in order to increase the satisfaction level of the people. From this time, the Eastern-European designers began to come up with their collections which were mostly inspired by the Western designers works. The garments were made in the socialist countries and manufactured in state companies and sold in the state stores.

After the political and economic transition, the fashion sector was liberated and the young generation who dreamed of the Western lifestyle started to purchase Western branded items which they could afford to pay

for. The foreign, Western-European and American brands' settlement began in the Central and Eastern Europe through importers, agents, retailers and also the manufacturing mother companies, the brand owners opened their first monolabel brand stores. In a decade, significant part of the less competitive local players were pushed out from the premium retail locations by the very prestigious old brands (Smith at al., 2014). While the competition increased and the growth rate of demand for fashion goods decreased in the 1990's in the Western markets, the gates opened to the East and the players started their extension there. The paper analyses these market dynamics in Hungary focusing on the premium fashion retail locations.

In the next chapters, we present the materials and methodology used in this research and examine to what extent the world's strongest brands and fashion multinational conglomerates could conquer the best retail locations through the examples of the high streets of Budapest, Hungary.

Methodology

Data was collected from all major fashion retailer firms in the Váci, Deák Ferenc and Andrássy high streets of Budapest. The primary data was collected during February-April 2019 via personal visits to the retail stores, including a few semi-structured interviews. The companies' actual and historical financial data, ownership structure and location information was obtained from OPTEN company database system. Other sources of secondary data included data from annual reports, public company databases, and webpages of the companies. For the purpose of evaluation and analysis, the collected data were structured under the name of company, brand(s) of retail unit, type of company, ownership structure of

company, history of company, history of brand and turnover figures of the operator company.

Fashion industry globally and in Hungary

The biggest players in the global Fashion industry

The fashion industry market share was 4% and its value reached 385.7 billion US dollars globally in 2017. The luxury goods market generated a major share of around 339.4 billion dollars. The fashion industry has

been witnessing a strong concentration of the major players in the last 50 years and in 2010, the top 20 companies accounted for 70 percent in the global economic profit according to McKinsey & Company.

In 2018, the top 20 companies dominate world's fashion industry and these companies account for 97% of global economic profit in the sector (McKinsey, 2019). The list and position of the top 20 companies is shown in Figure 1. As it can be seen, most of them are being in the global leader position constantly in the past decade.

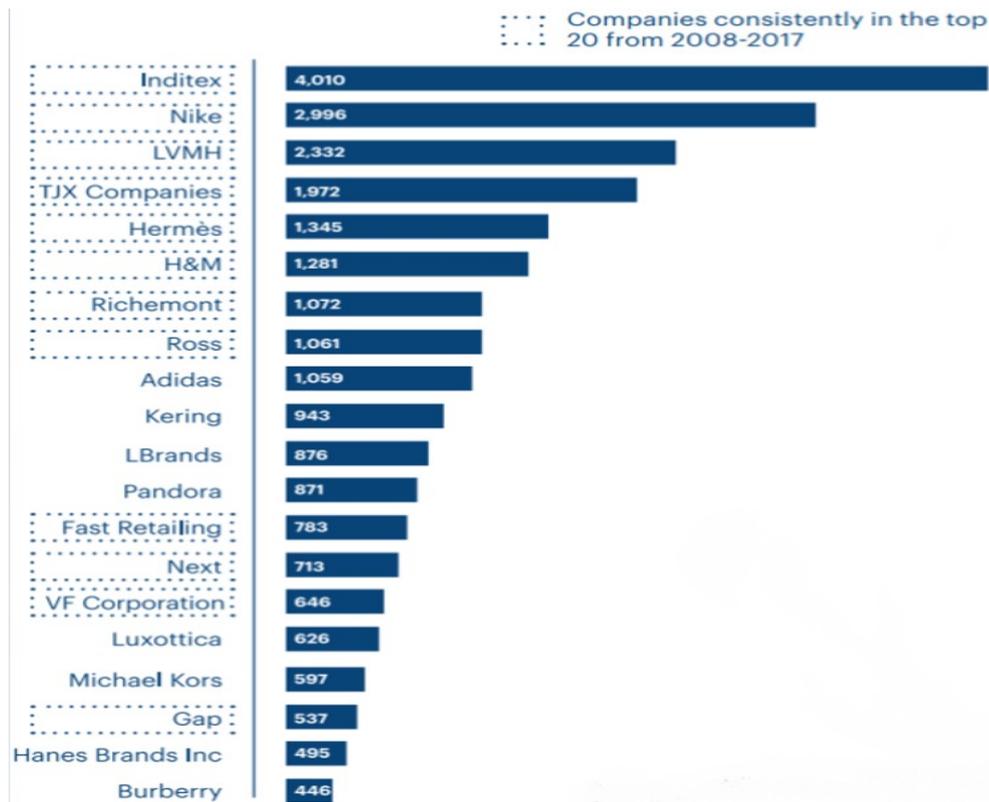


Fig. 1. The top 20 major players in fashion industry by economic profit in \$ US
source: McKinsey Global Fashion Index (MKGFI), 2018

The biggest players operate with several brands. Some of them grew their own portfolio like Inditex Group, which not only has Zara, but also sell Stradivarius, Bershka, Massimo Dutti and Oysho although many customers don't connect with them. Some of the most successful traditional brands' owners have been acquiring many other successful brands. It is worth to list the acquisitions of the LVMH Group as an example to see the level of concentration in the global fashion industry:

1987: Louis Vuitton. 1988: Givenchy. 1993: Berluti. 1993: Kenzo. 1994: Guerlain. 1996: Céline. 1996: Loewe. 1997: Marc Jacobs. 1997: Sephora. 1999: Thomas Pink. 1999: Tag Heuer. 2000: Emilio Pucci. 2000: Rossimoda. 2001: Fendi. 2001: DKNY. 2009: EDUN. 2010: Moynat. 2011: Bulgari. 2013: Loro Piana. 2013: Nicholas Kirkwood. 2013: J.W. Anderson. 2015:

Repossi. 2016: Rimowa. 2017: Christian Dior (LVMH, 2019).

The Kering group has Gucci, Yves Saint Laurent, Balenciaga and several other famous brands. All these companies have a long history in this business with great networking and experience, owning brands which have great value built up over decades. These strong fashion companies entered the Eastern European markets after the change and immediately created a highly competitive arena for the smaller, younger and inexperienced companies which were mostly formed at the end of the socialist times. An interesting fact is that not only fashion brands have built up themselves so strong, but also the department stores which sell other brands products and the store name have become popular and valuable brands, like Neimann Marcus for example, although they could not make it to the top 20.

Hungarian premium retail locations

The premium retail locations can be described with these attributes: the highest rent, the highest footfall and the most important – the highest spending. These factors are in strong correlation with each other, of course where the footfall is higher, there will be more sales, thus there will be more spending – and this sets the rent level in the market.

In Hungary, the top locations can be found in the capital city of Hungary, in the high streets of Budapest, which are the most visited places by the tourists.

According to the latest market research of Cushman and Wakefield (Cushman and Wakefield, 2019), these are

the top premium streets and locations in Budapest, ordered by the average monthly rent for a unit size 100-200 m².

The Váci street is the high street of the capital and the most visited street by the tourists. Right next to Váci street is Deák Ferenc street, named and referred as “Fashion street” – very small in terms of area, but a busy street. There is a third street called Andrásy street, the place traditionally for the most luxurious brands but with much less footfall (number of pedestrians who walk right in front of the store) than that of Váci and Fashion street (Fig. 2.).

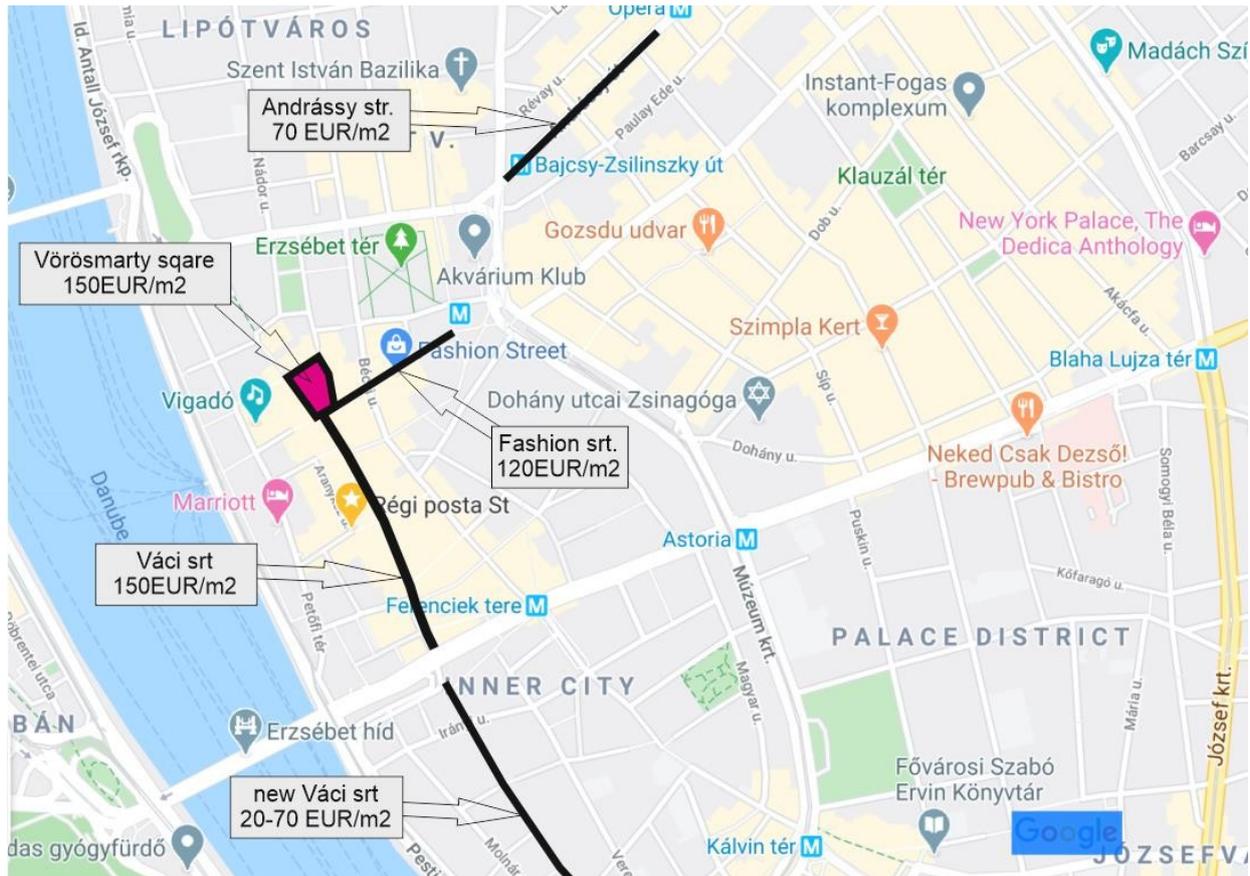


Fig. 2. The shopping streets of Budapest
source: own editing; Google Maps (2020)

Váci street has two different sections, one is the most frequented, premium location, from Kossuth Lajos street to Vörösmarty square. The other section of the street is not considered as a prime location (“New” Váci street). At Andrásy street, we are only taking the prime location into consideration, which lies from Oktogon square to Bajcsy-Zsilinszky street. The actual average rent figures shown in Table 1 are corresponding to these parts of the streets (Cushman and Wakefield, 2019)

Table 1: Average monthly rent in the high streets of Budapest.

Street name	Rent (price/m ² /month)
Váci stree	150 EUR
Fashion Street (Deák Ferenc Street)	120 EUR
Andrásy street	70 EUR

Source: Cushman and Wakefield, 2019

In this study we mainly focus on the highest rent street retail spaces and the most prestigious locations without including the shopping centers despite the presence of many malls whose rents are comparable to that of the shopping streets. In the next chapter we depict the actual snapshot of the brand occupation in these premium locations.

Brands' occupation of the premium retail locations in Budapest

According to our research which was carried out between September and October of 2019, we found 29 fashion clothing retail stores in Váci street, 14 stores in Fashion street and 31 fashion retail stores in Andrásy street. Jewellery stores were excluded in this research.

We examined the retail units' operator firm's company structure, looking for the connection between the operator firm and the brand ownership, investigated the end owners, the parent companies if there were any. We stated if the operator company was the brand owner itself, or a daughter company of a manufacturer brand owner, or a reseller. The results are given in Table 2.

Table 2: fashion retail stores in the high streets of Budapest

Váci Street	Number of shops	Váci + Fashion + Andrásy street	Number of shops
Number of clothing stores in total	29	Number of clothing stores in total	74
Manufacturer unit operated by the brand owners	23	Manufacturer unit operated by the brand owners	47
Foreign owner	22	Foreign owner	42
Domestic owner	1	Domestic owner	5
Reseller trade company (Selling other company's brand)	6	Reseller trade company (Selling other company's brand)	27
Foreign owner	3	Foreign owner	12
Domestic owner	3	Domestic owner	15

Source: own editing based on empirical research

In Váci Street which is the most frequented shopping street with the highest rent figure in Hungary, 79% of the operator of the retail fashion stores were the brand owner's daughter companies itself. There was only one brand owner-manufacturer, which is Hungarian. In other

shopping streets with lower rents, the composition of the stores is different in that there are more reseller companies compared to Váci street.

The difference can be noticed in fig. 1.

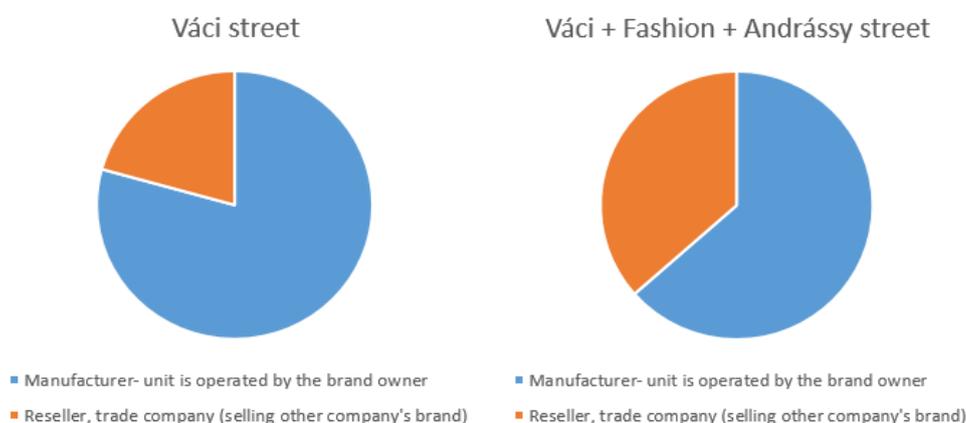


Fig. 3. The Fashion retail stores composition in the high streets of Budapest source: own editing based on empirical research

In the retailing structure, there can be usually three different basic construction in the sales channel. A company can realize the whole value chain in the sales, when the firm itself is the manufacturer of the product and sells them. The profit margin is smaller when the

retailer company is the importer and buys the merchandise from the brand manufacturer directly, because the manufacturer profit is missing from the chain and there is one more player in the value chain. Thirdly, the retailer buys the merchandise through a wholesale

company or agent which stocks the merchandise from the manufacturer and realizes a smaller margin after the sales as there are 2 more players in the value chain. In order to cover the high operating and investment costs in the high streets, the sales and most importantly, the margin realized after the sales must be very high.

Findings and discussion

- 1) According to the results, majority of the retail stores are operated by the daughter company of the manufacturer and the one which is not a daughter company is an importer, franchise partner who buys merchandise directly from the manufacturer. Retailer who buys the merchandise from the wholesaler cannot compete in this environment, we couldn't find even one such retail unit operator firm in Váci street and Fashion Street.
- 2) Another finding of the research is that each of these firms found in the retail units in Váci street; the operator company itself or its parent company, has more than 30 years of experience in all cases.
- 3) A high level of concentration of the leading fashion companies can be noticed in the shopping

streets of Budapest. Not only that many of the top 20 global leading company can be found among the 74 retail units, but also several companies are operating more than one retail stores here. For instance Inditex group operates 5 retail units in these 3 streets, H&M operates 3. Even a smaller Hungarian reseller company operates 3 retail stores here. There are 74 fashion retail units in total, out of which 28 units are operated by 11 owners and the rest 46 units have each different owner.

- 4) If we match the global top 20 fashion companies with the 74 retail fashion units, (table 3), we can see that 10 companies out of the 20 can be found here with monolabel brand stores on these 3 shopping streets, in the unique location of Hungary. And besides the brand monolabel stores, there are many brands which also sell to other retailers, to many other multibrand stores (Adidas, Nike for example can be purchased in many multibrand stores apart from the flagship monolabel stores) and they also have other brand stores in many other retail location of the country.

Table 3: Top 20 global winner companies in the s hopping streets of Budapest

No.	Company Name	Top 20 Company	Present with Monolabel Brand Store	Number of brands in the store
1	Inditex	Yes	5	5
2	Nike	Yes	1	1
3	LVMH	Yes	1	1
4	TJX Companies	No		
5	Hermés	No		
6	H&M	Yes	2	3
7	Ricehmont	No		
8	Ross	No		
9	Adidas	Yes	2	2
10	Kering	Yes	1	1
11	LBrands	No		
12	Pandora	Yes	1	1
13	Fast Retailing	No		
14	Next	No		
15	VF Corporation	Yes	1	1
16	Luxtottica	No		
17	Micheal Kors	Yes	1	1
18	Gap	No		
19	Hanes Brands Inc.	No		
20	Burberry	Yes	1	1

Source: own editing based on empirical research

Conclusion

This study contributed to the current knowledge on trends in the fashion retail sector by providing insights to the concentration and the factors of competition in CEECs, focusing on the structural changes and the drivers behind this process in the main shopping streets of Budapest.

The concentration of the fashion industry has reached enormous level globally, and the Hungarian market also reflects this change. Besides the top 20 global fashion companies, some other multibrand or monobrand stores are also present in the high streets of Budapest. In most cases, only those retailers are able to operate here in this

privileged area and in the highly competitive environment who have great experience in fashion retail and are able to supply their retail units from their own production, integrating the most or the whole value chain in their sales.

These results presented here are a part of an ongoing research, which have lots of limitation. The empirical research is only focusing on only one Central and Eastern European country and on only the best retail locations, the shopping streets of the capital. Further research is needed on the causes of success and failure especially in the case of domestic SME's. Investigation is needed what are the effects and results of the differences of the country specific institutional regulations.

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LIFE CYCLE SPECIFICS OF EDUCATIONAL PROJECTS IN THE CONTEXT OF SLOVAK EDUCATION ENVIRONMENT

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Abstract

Understanding of the project life cycle is one of the key areas of project manager knowledge. The primary reasons are the different requirements of project management in individual phases of the project reflected in the expectations of stakeholders, in project settings in within the activities scheduling, in subsequent execution of activities and in related involvement and workload of project team members, in cost management and time schedule. A frequent problem is therefore that the project itself is often perceived only through its implementation phase and omits the period and activities before and after outputs completion, which also have their specificities requiring attention and management.

In addition to different perceptions of the project life cycle, the question is also its standardization in terms of breakdown into phases with more precise description of their content. Each methodology has its own view and rationale for the breakdown, and from the point of view of the best-known standards and norms we encounter a breakdown from three to six phases. It is important to add that it is not possible to apply individual methodologies across all types of implemented projects, which increases the importance of the role of the project manager in the whole process. He should understand and correctly apply appropriate project management methods in conjunction with the expected inputs and outputs for the relevant project phase. Requirements for inputs and outputs are identically included in standards and norms differently - from basic recommendations to comprehensive definitions of the content of prepared documents and applied procedures.

One of the possible criteria for the classification of educational projects is the type of financing. This is an important determinant of the assumption of life cycle deviations for projects financed by the EU Structural Funds, projects financed by private sources and otherwise financed projects.

The essential of this paper is to evaluate the life cycle of educational projects financed by the European Union Structural Funds and to propose recommendations primarily aimed at improving project management from the perspective of the contractors entering the projects.

The essential will be developed through the following sub - objectives: To identify (from the perspective of the contractor) the life cycle specificities in educational projects financed by the European Union Structural Funds against the chosen methodological basis. To propose recommendations for improving the project management of contractors entering educational projects based on identified similarities and deviations.

In the theoretical part of the paper we will use the content-causal analysis, in which we will concentrate on literary resources dealing with the issues of project life cycle. In the analytical part we pay attention to the identification of the life cycle of educational projects financed from the EU Structural Funds from the perspective of an external contractor participating in various phases of their life cycle. The methodology of the analysis itself is based primarily on the methods of induction and deduction, comparison and synthesis. All obtained results are processed by method of synthesis with detailed description in discussion. The aim is to identify similarities and deviations from the project life cycle specified in the IPMA International Competence Baseline, version 4 (IPMA ICB).

The analysis of educational projects financed by EU Structural Funds allowed us to formulate a set of statements expressing the basic deviations perceived from the perspective of the contractor at selected phases of the project life cycle

We assume that the life cycle of the educational project shows its specificities regarding the type of financing, the implementation of the proposed recommendations can be expected to improve project management in them.

The formulation and verification of the assumption is based on the principle of *ceteris paribus* and we do not expect any other additional effects on the analysed educational projects.

KEY WORDS: Educational project; project life cycle; project management; European Union; IPMA International Competence Baseline.

Introduction

Understanding of the project life cycle is one of the key areas of project manager knowledge. The primary reasons are the different requirements of project management in individual phases of the project reflected in the expectations of stakeholders, in project settings in within the activities scheduling, in subsequent execution of activities and in related involvement and workload of project team members, in cost management and time schedule. A frequent problem is therefore that the project itself is often perceived only through its implementation phase and omits the period and activities before and after outputs completion, which also have their specificities requiring attention and management.

In addition to different perceptions of the project life cycle, the question is also its standardization in terms of breakdown into phases with more precise description of

their content. Each methodology has its own view and rationale for the breakdown, and from the point of view of the best-known standards and norms we encounter a breakdown from three to six phases. It is important to add that it is not possible to apply individual methodologies across all types of implemented projects, which increases the importance of the role of the project manager in the whole process. He should understand and correctly apply appropriate project management methods in conjunction with the expected inputs and outputs for the relevant project phase. Requirements for inputs and outputs are identically included in standards and norms differently - from basic recommendations to comprehensive definitions of the content of prepared documents and applied procedures.

One of the possible criteria for the classification of educational projects is the type of financing. This is an important determinant of the assumption of life cycle

deviations for projects financed by the EU Structural Funds, projects financed by private sources and otherwise financed projects.

The expected outcome of this paper is to focus on the project management aspects in the individual phases of the project life cycle in terms of theory with respect to the chosen standard / methodology for educational projects financed from the European Union Structural Funds.

Research Methodology

The essential of the paper is: **To evaluate the life cycle of educational projects financed by the European Union Structural Funds and to propose recommendations primarily aimed at improving project management from the perspective of contractors entering the projects.**

The essential will be developed through the following sub - objectives:

- Sub-objective 1: To identify (from the perspective of the contractor) the life cycle specificities in educational projects financed by the European Union Structural Funds.
- Sub-objective 2: To identify (from the perspective of the contractor) the life cycle specificities in educational projects financed by the European Union Structural Funds against the chosen methodological basis.
- Sub-objective 3: To propose recommendations for improving the project management of contractors entering educational projects based on identified similarities and deviations.

We have formulated the following assumptions depending on the essential and sub - objectives of the paper. Upon their formulation and verification, we assume the ceteris paribus assumption and do not assume any other additional (internal / external) impacts on the analyzed projects:

- **P0 (initial assumption): The educational project life cycle reports its specifics regarding the type of financing, the implementation of the proposed recommendations can be expected to improve project management in them.**
 - Assumption P1.1 (link to sub-objective 1): The life cycle of educational projects financed by the European Union Structural Funds reports certain specificities from the perspective of a contractor. The assumption was based on formal demands placed on the implementation of projects determining their specificity. The objectivity of the formulated statements will be ensured by the average of the questionnaire survey (1 - yes, 2 - rather yes, 3 - rather no, 4 - no) below the reference value of 2,0.
 - **Assumption P2.1** (link to sub-objective 3): The educational project life cycle management will be improved by the application of established recommendations.

In the first part of the paper we used the content-causal analysis, in which we focused on literary resources

dealing with project management and project life cycle. We used the resources of both domestic and foreign authors, scholarly articles, monographs, scientific articles and journals, conference proceedings, professional publications and other available sources of information. These documents were arranged using a historical-logical method into a complex whole.

In the analytical part, the attention is paid to the primary identification of the life cycle of educational projects financed from the EU Structural Funds from the perspective of a contractor participating in various phases of their life cycle. The whole part is divided into several successive partial units. The basis is the analysis of the life cycle of educational projects with respect to their financial criteria: To identify the life cycle of an educational project financed by the EU Structural Funds, the general knowledge of authors obtained from the preparation of project applications and from the implementation of educational projects from the Operational Program Education (realized by various types of schools: basic schools, high schools, and universities). There are 28 projects in this group.

Based on the outputs of the project life cycle analysis, the following will be implemented:

- The formulation of the statements on the specifics of the educational project life cycle regarding the type of financing. The statement will be specified in view of the different requirements for project implementation based on the type of financing and the associated ownership structure. These will be subsequently verified with consultants of contractors / self-employed persons participating in the projects of the surveyed category. The addressed respondents were asked by e-mail and communication application to express their agreement or disagreement with the formulated statements in the questionnaire. The questionnaire contained a total of 10 statements. The consent was requested on a scale of 1 to 4 with the following parameters: 1 - yes, 2 - rather yes, 3 - rather no, 4 - no. The questionnaire was sent to 150 people in total, assuming a return of at least 60 percent. Data collection took place in the period 25.06.-10.07. using email correspondence and phone conversations with a real return of 73%. The objective was to objectify the formulated statements by removing those whose average response rate exceeds 2.0 as a possible disagreement with the statement. These were excluded from further analysis.
- The comparison towards the selected methodological base / standard to identify similarities and deviations: For comparison, we will use the basic framework of the content of project life cycle and outputs defined in the IPMA ICB. If deviations are identified, they will be presented in the form of a description in the relevant field.
- The formulation of proposals / recommendations to streamline project management within the project life cycle of an educational project financed by the European Union Structural Funds. We start from the premise that the

implementation of project management elements in locations with identified deviations from locations with identified similarities, or from a defined methodological standard, can improve project management results.

The methodology of the survey itself is based primarily on the methods of induction and deduction, comparison, analysis and synthesis. All obtained results are processed by method of synthesis with detailed description in discussion.

Literature Review

Project management can be understood as a process that is according to Basl et al. (2002) or Westland (2007) one of the business processes. The natural framework for exploring links and processes for project management is the project life cycle, and a structured view of it is very important, as reported by Chapman & Ward (2003), Thomson et al. (2011) or Khang & Moe (2008). ISO 21500 (2013, p. 36) states that *"the life cycle of a project covers the period from the start of the project to the end."* Although we are talking about the project life cycle, it is not really a cycle. In order to be a cycle, it would have to be a closed cycle, which is not possible for a project – it is a sequence of certain phases and stages in one direction on the timeline. The closure of such a cycle is not physically possible.

Throughout its life cycle, the project itself is often misunderstood only through its implementation phase, mainly because its results are most exposed to the outside. Other phases of the project, which are of equal importance, are omitted. At the same time, each phase has its specifics regarding the primary focus and content. This should be understood as a priority by the project manager in order to efficiently set up the related processes and adjust the overall (financial, time and personnel) allocation (Pinto & Mantel, 1990), (Bonald et al., 2002), (Archibald et al., 2012).

Generally, a project phase can be understood as *"the part of the project life cycle that is suitably distinguished from other phases, usually as a group of related activities, associated with the achievement of significant output. The phase may comprise several stages"*, as stated in Petráková (2019). The theory does not clearly define the exact breakdown of the project into phases; there are several approaches of different authors, e.g. Pinto & Prescott (1988), Labuschagne & Brent (2005), Patanakul et al. (2010) or Kloppenborg & Petrick (1999) and Archibald et al. (2012), standards and norms. By default, they adjust their number primarily due to the importance factor attributed to partial activities within each phase. None of them can be perceived in isolation, there are strong links and direct consequences between them.

The most well-known approaches dealing with and characterizing the project life cycle are the following:

- PMBoK® by Project Management Institute ("PMI"),
- PRINCE 2 (PProjects IN Controlled Environments),

- International Competence Baseline ("ICB") by International Project Management Association („IPMA“),
- ISO 10006,
- ISO 21500.

Complementary approaches from UNIDO and IIL may also be included.

The form of project life cycle definition varies by industry, but also within the same industry it is different for various organizations and businesses, says Korecký & Trkovský (2011, p. 61) and Sargent et al. (2006). This is also confirmed by Doležal et al. (2009, p. 155), who states that *"each organization should, according to its nature and the nature of each project, identify its own life cycle, or the characteristic life cycle of the projects, which realizes."* PMBoK (2013) cites, that the number of phases and their names are not strictly given, but are tailored to different needs, management, organization or project.

We distinguish the whole range of project life cycles; it is not possible to work dogmatically with one published in the standard or norm. Svozilová in her publications (2011a, p. 37) or (2011b, p. 147) applies systems theory to the project life cycle definition, arguing, that there are several project life cycle definitions. Máchal et al. (2015, p. 104) write, that the number and structure of project life cycle phases will vary from project to project, industry to industry, organization to organization. Some projects may only be single-phase, while others may have two or more phases. Another project life cycle typology is presented by Pitra (2008, p. 174), Štefánek (2011), Schwalbe (2011, p. 70), PMBoK (2013), Kerzner (2018), Chapman & Ward (2003) or Jaafari (2000), Wynn (2003) and Kanda (2011) in general for some industries. PMBoK (2013) lists different forms of project life cycle for the military, pharmaceutical and IT industries.

Regardless of the chosen approach, it can be stated, that the project life cycle and project management are, according to Doležal et al. (2009, p. 12) and Jiang & Heiser (2004) based on certain generic principles, which are as follows: *"teamwork, systematic approach, integration and continuous improvement, and quality improvement"*. The project manager should actively use these elements and must be able to apply them correctly depending on the needs of the relevant project phase. Finally, he can significantly influence the final product of the whole project. In general, each subsequent phase is directly dependent on the previous phase. In addition to breakdown the project into phases and establishing responsibilities, it is so important to look at the project from the perspective of the elements that are recommended by the long-term project management to be covered at each phase. The length of the individual phases cannot be generalized.

Each project is individual, and the duration of the phases can vary significantly. At the same time, for selected project types, the duration of the phases can be estimated or adapted to contractual requirements. A typical example are projects financed by the European Union Structural Funds, where the minimum and maximum duration of the implementation phase is

contractually agreed by the Managing Authority or Intermediate Body under the Managing Authority.

Despite the existence of sufficiently valid outputs describing the project life cycle issues mentioned above, there is no comprehensive and uniform theoretical and practical view of the solved issues in the intersection of other aspects of project management and economic-managerial practice. In literature, e.g. Ghaffari et al. (2014) or Oellgaard (2013) and Ng & Walker (2008) and project practice, there is terminological inconsistency that equates the project life cycle and the project management life cycle, emphasizing the fact that the project life cycle is the same for all projects. However, this argument contradicts the basic definition of the project, which is dominated by the emphasis on uniqueness. In addition, in many information sources we found incomplete information about the possibility of applying different project life cycle models and project management life cycles, which in turn is in contradiction with the statement to apply one standardized project life cycle to all types of projects.

We conclude that there is no more comprehensive elaboration of the project life cycle, its types and models in relation to the industrial practice of the Slovak national economy, we therefore identify a large gap between the theory and practice of applying project life cycle types and models as one of the important aspects of project management.

Results

The analysis of educational projects financed by EU Structural Funds allowed us to formulate a set of statements expressing the basic deviations perceived from the perspective of the contractor at selected phases of the project life cycle:

- Statement no. 1: Preparation of the application for financing is a separate project; within the educational project life cycle it can be perceived as a wicked life cycle.
- Statement no. 2: Despite the detailed planning of the activities, their timing is largely dependent on the relevant Managing Authority / Intermediate Body under the Managing Authority, which may cause significant delays in the execution of individual educational project activities and thus significantly affect the overall efficiency of educational project implementation and the life cycle length.
- Statement no. 3: Deviations from the contractually agreed triple imperative are not allowed in the delivery of educational projects financed by EU Structural Funds; these are severely penalized by a reduction in the contribution.
- Statement no. 4: Public procurement, which is a mandatory part of analyzed educational projects, is administratively and time consuming, thus significantly affecting the course of individual phases of the project life cycle.
- Statement no. 5: The composition of the project team is largely determined by the project call, which determines the professional positions in

the educational project. Of course, the receiver has the right to assemble the project team exclusively from external sources, but this is not standard. External assistance is used only for specific positions, ensuring the supervision of output quality or positions within the administrative team. In order to run the educational project effectively, experience and knowledge of the relevant operational program / implementation of educational projects from the Structural Funds is necessary. Internal capacities without the necessary knowledge and motivation can demotivate the project and the entire project team and guide them in the wrong direction.

- Statement no. 6: In analyzed educational projects, the idea is adapted to the announced call.
- Statement no. 7: The project life cycle of analyzed educational projects can be generalized in relation to the priority axis.
- Statement no. 8: Analyzed educational projects do not have the option of choosing the form of delivery waterfall vs. agile.
- Statement no. 9: For analyzed educational projects, the only award criterion is price.
- Statement no. 10: The fundamental deviation is in the view of the educational project life cycle by the contractor - the project life cycle from the contractor's perspective is only a part of the whole project life cycle, which is determined by the contracting party.

Based on the respondents' answers, we ruled out statement no. 8, the average of which exceeded the set reference limit of 2.0 and indicated possible disagreement of respondents. On the contrary, the applicants' replies to the arguments of 1,3,4,7 and 10, where we see the highest match (i.e. average of responses in the interval $<1; 1.5>$) will be prioritized in the formulation of recommendations.

In the context of IPMA ICB project lifecycle phases definition, we have visualized the educational project life cycle for analyzed projects in a schematic (see Table 1). The scheme contains basic activities from the perspective of the client and areas of contractor's participation in them. The two activities, in more detail, represent the worn partial life cycles within the overall life cycle of the educational project. Otherwise, the involvement of an external company is also possible in all other activities.

In a more detailed comparison of the content requirements and expected outputs according to the IPMA ICB, in a total of 11 statements, we identified significant deviations in up to 9 of them. The deviations in the outputs are relevant for each phase of the educational project life cycle. See Table 2 for details.

Table 1. Average life cycle of the analyzed educational projects financed from European Union Structural Funds

SUBMITTER	Pre-project phase <ul style="list-style-type: none"> Idea Feasibility study Preparing an application for a non-refundable financial contribution (A) 	➔	Implementation phase <ul style="list-style-type: none"> Implementation according to the application form Procurement (B) Reporting 	➔	Post-implementation phase <ul style="list-style-type: none"> Termination Reporting
SUPPLIER A	Pre-project phase <ul style="list-style-type: none"> Internal / external project preparation management 	➔	Implementation phase <ul style="list-style-type: none"> Preparation of the project application form 	➔	Post-implementation phase <ul style="list-style-type: none"> Application form evaluation
SUPPLIER B	Pre-project phase <ul style="list-style-type: none"> Familiarization with the delivery according to the tender 	➔	Implementation phase <ul style="list-style-type: none"> Delivery according to the tender 	➔	Post-implementation phase <ul style="list-style-type: none"> Delivery of outputs

Table 2. Comparison of life cycle of the project financed by EU Structural Funds with the ICB IPMA Competence Baseline

Phase	Stage	Output	Similarities	Differences	Comments
Pre-project	-	Topic		yes	the theme is often based on the call, i.e. it is a secondary project idea
	-	Opportunity study		yes	to a limited extent, SWOT is part of the application form
	-	Feasibility study		yes	to a limited extent, the core points are part of the application form
Implementation	Start	Project charter		yes	not prepared, selected documents are prepared particularly
	Start	Log frame		yes	to some extent, the description is contained in the Project Description, but without any methodological instruction documents are still being prepared in the pre-project phase
	Preparation/ planning	WBS		yes	the project budget includes a breakdown of activities and sub-activities, which are primarily broken down by accounting classification of items the budget is still being prepared in the pre-project phase
	Preparation/ planning	Implementation plan		yes	is not a mandatory part, the project manager prepares the plan separately for his needs
	Preparation/ planning	Timetable		yes	only the timetable for the implementation of the activities is to be sent without any details the project manager prepares the schedule separately for his needs
	Realization	Reporting	yes		the Managing Authority / Intermediate Body under the Managing Authority expects three types of reports, but these are insufficient for project management and it is necessary for the project manager to have separate records
	Finalization	Final report	yes		the structure of the final report is given by the position of the Managing Authority / Intermediate Body under the Managing Authority, it is primarily based on the three-imperative and values of indicators in the contract

Post-implementation	Feed-back	Independent evaluation	yes	it is not implemented at all
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The greatest determinant of discrepancies is mandatory EU / national documentation, strictly prescribing the content and form of documents abstracting several important aspects. These, as they are not mandatory, are not prepared by applicants on their own initiative.

Conclusion

From the point of view of prioritized verified statements (with an average of less than 1.5), we can recommend: The area of educational projects financed by the EU Structural Funds requires project management adapted to the specific life cycle specifications of these projects. Despite their possible standardization, we recommend not underestimating the preparation of the necessary documents and paying maximum attention to implementation. Already in the pre-project phase during which the application form is being prepared, we recommend including at least the level of consultation in the process. Preparation of the application form is a complex activity requiring interaction with a dedicated person by the applicant, preparation of the budget and the application itself. It can therefore be understood, and it is necessary to treat it and similar activities as a separate project. A well-prepared application form, processed according to the requirements of the call and according to the applicant's wishes, will consequently simplify the whole process of educational project implementation and related public procurement. The possibilities of procurement are set already during the preparation of the application form, when it is possible to prepare a preliminary schedule of public procurement on a monthly basis without specifying more precise dates. After confirming the exact budget of the educational project based on the evaluation of the project application by the Managing Authority / Intermediate Body under the Managing Authority, the receiver will only adjust the prepared timetable for categories not recognized in the evaluation of the application. The proposed approach will significantly streamline the implementation phase of the educational project, as it will shift the time for preparing public procurement from the implementation phase to the pre-project phase.

One of the most important areas of project management in analyzed educational projects is the minimization of project triple imperative variations, contractually agreed between the Managing Authority / Intermediate Body under the Managing Authority and the receiver. We recommend to the project (and financial) manager to create detailed records to monitor the progress and current status of the educational project. These are not required by the aid provider, but the

application of the basic principles of project management from private to public projects eliminates possible fines

and reduction of the contribution to the receiver in the final settlement of the project.

There is no doubt about the topicality of the life cycle of the project, which is being examined by many domestic and foreign authors, e.i. Doležal et al. (2009) or Štefánek (2011) and Kerner (2018) or Pinto & Prescott (1088) and the continual development of opinions on it. It is a part of our private and professional lives due to the realization of projects in both spheres, but there is no clear approach to the division of the project life cycle into phases together with an exact definition of their content. Therefore, in the theoretical part we tried to approach the most well-known approaches of individual methodologies, standards and norms.

The essential was to evaluate the life cycle of educational projects financed from the European Union Structural Funds and to propose recommendations primarily aimed at improving project management from the perspective of contractor entering the projects. To achieve this, we have defined three sub-objectives and one related assumption. The focus was on the identification of life cycle patterns in their individual phases broken down by type of educational project financing, i.e. from the EU Structural Funds.

An important aspect was the perspective of the contractor involved in a certain part of the life cycle in analyzed educational projects, which may not fully correspond to the whole project life cycle. Comparing the findings of the life cycle analysis of the educational project financed from the EU Structural Funds to the chosen IMPA ICB in context with specified and verified statements enabled us to formulate recommendations aimed at improving project management. We believe that full implementation of the IPMA ICB will help eliminate potential risks and project variations, or, at the outset, set assumptions and limitations to ensure that key stakeholders are aware of them.

By its focus and timeliness, the paper brings impetus for further research in the given area, as it can be divided into parts, which can be also dealt separately. We believe that its content will also contribute to the knowledge of project management on a practical level, as it synthesizes the knowledge from the implementation of several projects.

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FACTORS INFLUENCING STUDENT CHOICE IN HIGHER EDUCATION

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Abstract

Increasing global competition, globalisation of markets and the global economic downturn encourages the search of ways to maintain the stability and growth of industrial enterprises. Nowadays, when business environment is rapidly changing, enterprises have to increase constantly their competitive advantage. Human resources are crucial in addressing these issues. Motives of human behaviour energy and direct it to a certain direction. Needs, preferences, and interests are by far the strongest reasons for choosing the path of further learning. This article seeks to answer how motivation influences young people to choose a profession and what factors are the most important in this choosing. On the one hand, motivation has explained under structural point of view as a factor or set of reasons. On the other hand, motivation has interpreted as a dynamic phenomenon, process, and mechanism. Development of industrial psychology and especially behaviourism made very big influence on the development of psychological motivation theories since 1990. The field investigation of this psychology is the subject of human behaviour in the choosing of the studies. One or another treatment is depending on environmental conditions. A survey reveals that in order to motivate a person, it is necessary to enable them to meet their basic needs in such a way that helps achieving the objectives of all institution. The article also presents the most important criteria influencing the choice and their relative weight. The results of the research carried out by the authors have compared with the results of similar investigations by other authors. There are focused on the main factors encouraging choosing particular higher education institution and studies at it. Based on the results of the research, it was made these conclusions. A survey showed that two factors are most important when students are choosing to study. These factors are the desire to acquire higher education and the desired specialty, as well as the personal desire to develop, expand knowledge, achieve the goal. 57 % of respondents indicated that opinions of parents, relatives, friends or teachers were not relevant to them. When it comes to choosing a higher education institution, the most important are the city where person wants to study and where the institution is located, higher education institution prestige and quality of the studies.

KEY WORDS: higher education; student choice; motives for studies; choosing of studies; factors influencing choice.

Introduction

Today's rapidly changing world of labour market is creating new challenges that are more challenging for young people who are joining it. To meet the changed globalised structures there is a need of well-educated researchers, engineers, technicians and other professionals with innovative ideas and the capacity to solve problems, i.e. meet challenges from the megatrends (Bjurulf, 2012). In order to become successful players in the work market, young people must not only meet certain professional criteria that are as relevant as their own, but also have certain personal competences.

When it comes to modern higher education, it is very important to mention creativity. This is one of the most important competencies. It must develop in young people nowadays. The successful implementation of creativity in education is largely dependent on teachers' own beliefs about creativity. In recent years, creativity has been widely investigated at all levels of education, higher education including (Bereczkia, Kárpátib, 2018; Burkšaitienė, 2018).

Education and training institutions implement life skills development programs, the aim of which is to help learners adapt to society and behave in a positive, effective way to cope with the needs and problems of everyday life. Life skills have defined as the ability to adapt to society and behave positively, the ability of individuals to deal effectively with the needs and challenges of everyday life. These are abilities, which help young people maintain mental health and self-

confidence when confronted with the realities of life (Gudžinskienė, Railienė, 2012).

Naturally, when choosing their own way of life, young people are aware of the career challenges that high quality basic education in high school is of particular importance to a successful start. In addition, it is very important for a higher education institution not only to guarantee high quality studies, to maintain the high school's prestige, competitiveness, but also to meet the expectations of the candidate for studies as well.

Recently, when analysing the criteria for choosing a higher education institution, it is necessary to talk about the country from which the student came. Some criteria may be important for an applicant from Lithuania and quite others for an applicant from a foreign country. Empowering global education is seen as a trend in many developing countries. The borderless education not only show the tendency of students in pursuing higher education abroad for the purpose of obtaining a better quality education, but it is also become a main source that generate revenue for university (Jupiter, Othman, Suki et al, 2017). It was founded that the main motivations of students who choose to study at foreign countries are different to those students who choose to study at home universities (Wilkins, Balakrishnan, Huisman, 2012).

However, there is also a lot of research why young people choose one or another higher education institution in the native country. Quite often, students' choices are influenced by perceptions of the value of education, which are influenced by differences in costs (monetary and non-monetary), students' attitudes, and socio-

demographic characteristics (Petruzzellis, Romanazzi, 2010). The other research findings showed that one of the reasons that made the respondents choose to study at university is its reputation. This reason was rated the highest level (Kirahat, Burananuth, 2018).

There have also been a number of researches as to why good candidates for mathematics or physics may choose to study at a university outside STEM (science, technology, engineering, mathematics) subjects. It may probably be argued that psychoanalytic interpretations are also important in analysing the reasons for choice. Consequently, the influence of unconscious forces on young people's decision-making must also be assessed (Rodd, Reiss, Mujtaba, 2014).

The high schools ask students to answer the question what are the main criteria for choosing high school. How many coming young people are motivated not only to study seriously according to the chosen study program, but how much are they prepared for systematic studies in higher education in general and what are their main goal. Do they come not only for a good time to spend and get a higher education diploma?

Monitoring graduates also helps answer these questions. Monitoring graduates also helps answer these questions. Their observations and comments are very important for the higher school in improving the quality of studies and increasing its prestige in society (Romeryte-Šereikienė, Šaltytė-Vaisiaskė, 2019).

Research problem. Wide discussion about criteria that makes young people choose one or other study program or institution, watching disproportionately distribution between same level study programs that makes a person question about chosen career, how these criteria change? Lithuania Business University of Applied Sciences students had chosen to answer these questions.

Research object. Criteria that has influence in choice of studies.

The aim. To identify the most important criteria that has influence in choosing of studies and higher education institution.

The following **tasks** are set to achieve this aim:

1. To determine the most important criteria influencing the choice of a higher education institution.
2. To evaluate the motives of college students in choosing studies.
3. To compare the obtained research results with the results of similar research in Lithuania and other countries.

Research methods. Methods used in the research: literature and document analysis, systematisation, quantitative survey: a questionnaire of criteria for studies choosing, statistical data analysis and interpretation of quantitative research.

Research of criteria in choosing studies

The field of education is increasingly being identified by society as a priority, a key element that often plays a decisive role in the successful development of the state and society. Therefore, the demands placed on educational establishments at all levels by society are

particularly high. Each education sector's institution is under pressure from the society, it strives to meet the expectations of both: the society and institution clients by providing quality, innovative, interactive education services in particular. Graduates are under society pressure to choose between university and college institutions when they are choosing to study at a higher education institution. They must take into account criteria such as quality of studies, employability, personal or parents', friends' interest and expectations. Although family and cultural factors have been assumed to play important roles in the career development, theory-driven research on this topic remains limited (Hui, Lent, 2018). Marketing activities carried out by higher education institutions in order to attract students also play a key role in the choice of studies.

Students learning success and response to successful job are determent by these: successful profession choice, academic learning and results, career development (Katkonienė, Ustinavičiūtė, Žemaitaitytė, 2011). Vocational persons choice have connected with deliberate choice, purpose to find and ensure a place in work market and in social environment. The representatives of Generation Y (also known as Millennials, Generation "Me") had described as individualists, seeking for attention, skilfully mastering technologies, and looking for a meaningful activity (Statnickė, Čeledinaitė, 2018). In addition, vocational decision and choice shows a personal growth and expansion that leads person's characteristics, maturity, intelligence, interests, inclination, talents, strategic thinking, etc. We can indicate that in choosing of profession the most important three criteria are: 1. I can - personal peculiarity, health position, talents, learning outcomes; 2. I want - if profession going to give satisfaction, would give inclination, interests; 3. I need - economic needs and prospects, public service (Liobikienė, Bukauskienė, 2014).

Choice in studies makes an influence on a young person. It is and values and personal needs and society, public environment which opens possibilities. The study choice motives forms by factors like information, opinions, values that are led by society, this is said by sociological analysis authors V. Leonavičius and A. Rutkienė (2010, p. 54). Position "where they going to take me in, there I'm going to study" itself can have bad consequence in professional life and it will make society expectations unsatisfied. That is why profession and career path choice are, said by L. Jovaiša (2009), - multiply act, long-lasting process and studies choice is complex thing: while choosing study program person not only needs to know what profession they want but they need to choose a place to study (city or even a country), choose higher education institution, assess their abilities, eligibility for one or other profession, also opportunities by school exams scores, also opportunities by the budget, if later on it has to be coordinated with studies (MOSTA, 2014, p. 3).

It also suggests that higher education students and undergraduate opinion polls have conducted in the Lithuanian higher education area about their motives for choosing a higher education institution and the study program they want to study. After reviewing 2008-2017 the results of the research carried out in Lithuania

(LBUAS, 2008, 2012; MOSTA, 2014; LTVK 2015, 2016, 2017, 2018; LTVK ŠF, 2014, 2015; Urbonienė, 2015; Balevičiūtė, Valavičius, 2014; Liubinienė, Slimavičienė, 2016;) on student motivation and factors which influence the choice of a university and the program you want to study, it can be seen that the main trends are changing. The study commissioned by the Ministry of Education and Science of the Republic of Lithuania showed that the main factors determining the choice of a higher education institution and study program are: the need for a study program in the work market; clear career opportunities; good material conditions in the future; expressions (intellectual and artistic); study program is related to personal interests; The study program is related to the favourite subjects taught. 2012 The research carried out by UAB RAIT, commissioned by the Ministry of Education and Science of the Republic of Lithuania, has already shown that the main criteria for choosing which Lithuanian higher education institution and under which study program are to study were: the subject you want to study; employment prospect; the cost of studies and the public opinion on the higher education institution and the study program (2012, p. 8). Science and Research Analysis Center (MOSTA) in 2014. According to the data of the research of the higher education system stakeholders, the main factor determining the choice of the higher education institution is the aspect of study quality at that higher education institution. Attention has drawn to the fact that when students choose a high school, an important "study city" (mostly Vilnius capital), school prestige and quality of studies (MOSTA, 2014, p. 7). When choosing a study program and a specialty, it is important for students to relate to favorite and relevant subjects, "job security", "prospect for senior positions" and "free study place" (MOSTA, 2014, pp. 5-6). When choosing where to study - at a university or college - students are more likely to choose a college based on better practical training, a change in the society's view of college studies, the willingness to study according to the desired study program, and easier access to employment after completing college studies. The feedback and recommendations of senior course students and graduates (LTVK, 2015, 2016, 2017, and 2018) have a great influence on the choice of college studies and study program. Summarizing the research data, one can distinguish the main tendencies, what motives of young people determines the choice of the school of higher education and the study program: 1. the desire to study according to that specialty; 2. specialty prestige in society; Career opportunities; 4. realization of personal abilities; 5. desire to obtain a higher education diploma. Higher schools, in order to attract as many candidates as possible to study, have to study the main motives and factors of study choices.

Methodology of research

A quantitative study has carried out using a questionnaire for the first year students of the Lithuanian Business College. Prepare a questionnaire to look at similar work done by interviewing students from other higher education institutions. The purpose of the survey

was to find out what students expect during college studies and what are their main goals, what expectations and plans they can designate for the future. One of the questions was "Who influenced the choice of studies at the Lithuania Business University of Applied Sciences?" In the course of the research, the research object has chosen as a convenient population consisting of students of the first-year college of continuing education and full-time studies. The study had carried out at a micro level, since the students study in one environment - the The study had carried out at a micro level in Klaipėda and Vilnius departments.

The study sample based on the Paniott formula (Kardelis, 2016):

$$n = \frac{1}{\Delta^2 + \frac{1}{N}} \quad (1)$$

Herein n – sample size, Δ – sampling error size. As this study examines the attitude of students, rather than certain quantitative parameters, the error can be increased up to 9%, i.e. $\Delta = 0.09$, N – the size of the general population.

The sample size calculated according to formula (Eq. 1):

$$n = \frac{1}{0.09^2 + \frac{1}{145}} = 66$$

The questionnaire has filled by 67 first-year students; therefore, it can stated that the results of the study performed are validate. All returned questionnaires have filled in completely.

Respondents provided with an original questionnaire drawn up by the authors, which presents matrix questions of a closed type. Among other questions in the questionnaire, respondents asked to evaluate the following study selection criteria:

- Desire to pursue higher education;
- Personal desire to develop, expand knowledge, achieve the goal;
- Desire to obtain a higher education diploma;
- Desire to acquire a profession;
- Good career opportunities;
- Better opportunities and perspectives in the work market;
- Desire to find a job easier;
- Pragmatic circumstances, because it is closer to home, more convenient;
- Exam results;
- Random selection;
- Opportunity to study for free;
- Encouragement of family members (parents);
- Promotion of friends and acquaintances;
- Teacher counsel;
- Reluctance to dismiss parents;
- An attractive, interesting study program;
- Good study quality;
- The emergence of a new study program (specialization);
- A more positive attitude towards colleges, a better image, goodwill;
- Fashion.

Each of these claims had to be evaluate using the following terms:

- Totally agree;
- I agree;
- Neither agree nor disagree;
- I disagree;
- I totally disagree.

The survey conducted online. An application to fill out a questionnaire sent to each respondent via e-mail. The purpose of the survey and usage of received data indicated in the letter. The anonymity of the respondents also ensured and the confidentiality principle maintained.

The results of the survey were grouped, systematized and visualized in diagrams and graphs.

Results

The institution in which the survey took place conducts studies in two cities of Lithuania: Vilnius and Klaipėda. This is a non-state higher education institution. As mentioned above, the first-courses of regular and part-time study forms of both departments surveyed. Their distribution has presented in Fig. 1.

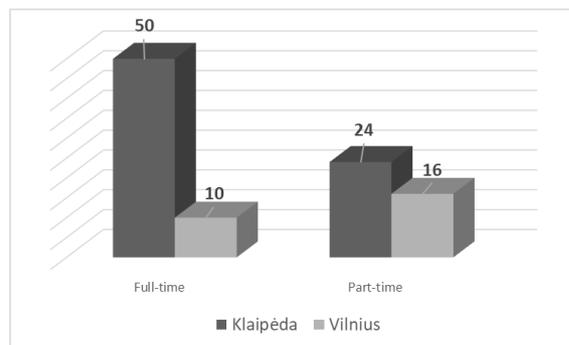


Fig. 1. Distribution of respondents by divisions and study form, %

The presented distribution of respondents shows (Fig. 1) that students from continuing education form the majority of respondents. Persons who have completed secondary education in the same year of study as the reception has conducted usually select permanent studies. Consequently, interpreting the results can said of a person who has recently completed secondary education.

The table below shows (Table 1) the assessment of each of the criteria presented in the questionnaire.

Table 1. Respondents' opinion about study selection criteria

Criteria	Totally agree	I agree	Neither agree nor disagree	I disagree	I totally disagree
Desire to pursue higher education	48	8	7	0	4
Personal desire to develop, expand knowledge, achieve the goal	48	11	4	1	3
Desire to obtain a higher education diploma	48	11	3	0	5
Desire to acquire a profession	44	15	3	1	3
Good career opportunities	35	14	13	2	2
Better opportunities and perspectives in the work market	31	21	11	2	2
Desire to find a job easier	33	22	8	2	2
Pragmatic circumstances, because it is closer to home, more convenient	9	7	18	11	20
Exam results	15	9	22	8	12
Random selection	10	8	13	11	25
Opportunity to study for free	13	6	7	8	33
Encouragement of family members (parents)	11	7	15	5	29
Promotion of friends and acquaintances	9	5	15	7	31
Teacher counsel	10	3	9	7	38
Reluctance to dismiss parents	12	5	11	9	30
An attractive, interesting study program	27	15	15	6	4
Good study quality	22	22	14	5	4
The emergence of a new study program (specialization)	19	12	18	7	10
A more positive attitude towards colleges, a better image, goodwill	14	14	23	7	8
Fashion	3	3	18	4	38

As we can see from the data in the table (Table 1), respondents indicate three criteria that they find most important when choosing to study at a higher education institution:

- Desire to pursue higher education;
- Personal desire to develop, expand knowledge, achieve the goal;
- Desire to obtain a higher education diploma.

Totally agree with this statement 72% of respondents.

Of course, these three criteria sound like this, so it can be concluded that they are equally evaluated for their similarity, i.e. respondents marked their opinion with each criterion, and similarly rated the same criteria. By extending the scale of assessments and agreeing with the full acceptance of the assessment, I agree, the assessment of these criteria distributed slightly. Then another

important criterion is emerging - "the desire to acquire a profession" (Fig. 2), and the criterion "the desire to pursue higher education" finds its last place. This could be because the criterion of "personal desire to develop, expand knowledge, and achieve the goal", which includes the acquisition of higher education, is also more appealing to the larger majority, but at the same time emphasizes the individual's desire for lifelong learning.

Regarding the naming of the criteria, it is clear that respondents distinguish three essential points: personal desire to improve, gaining the chosen specialty and collectively acquiring higher education. The most significant of all would be the acquisition of higher education (higher education diploma), since two criteria indicate this goal, but one of them emphasizes not only the fact of obtaining a diploma, but also the accumulated

knowledge and skills of luggage, while the other only constitutes the acquisition of a higher education diploma the fact.

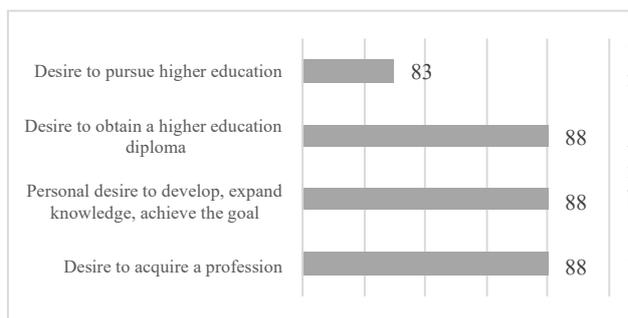


Fig. 2. The most significant evaluations of respondents, %

In addition to the above-mentioned criteria, the quality of studies, an attractive study program, a well-organized study process, etc., are important to respondents, but, according to respondents, they are not the most important criteria for choosing a higher education institution.

Assessing respondents' answers on the other hand, they have an opinion that they cannot really influence (57%) other people (parents, relatives, friends or teachers). respondents indicated that their opinions were not relevant to them (Table 1).

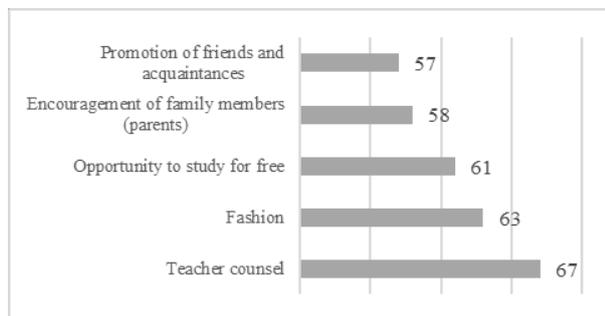


Fig. 3. Respondents' least significant estimates of claims, %

Respondents also indicated that they have no significant and pragmatic circumstances, i.e. y closer to home, more comfortable. Of course, there is a large and random chance of choosing. Summarizing the minimum criterion for selecting studies, teachers' advice and fashion could be distinguished (Fig. 3).

Analysing respondents' answers in a broader context, i.e. in assessing their expectations during the study process, it can be argued that they devote considerable attention not only to the choice of study programs on demand in the work market, but also to the image of a higher education institution in society and the studying city.

Conclusions

Based on the results of the research, we can make these conclusions.

The results of the analysis of scientific literature revealed that researchers identify one the most important criteria for choosing studies. This is the prestige of higher education institution. It is very important how society assess the institution. This criterion is important in all situations and contexts when we are talking about both national and international studies in higher education.

A survey of by Lithuania Business University of Applied Sciences students showed that two factors are most important when they are choosing to study. They both were named by 88 percent of respondents each. These factors are the desire to acquire higher education and the desired specialty, as well as the personal desire to develop, expand knowledge, achieve the goal.

On the other hand, when it assesses respondents' answers, it is important to mention that other people cannot really influence students. 57 % of respondents indicated that opinions of parents, relatives, friends or teachers were not relevant to them.

Research done by Lithuania Business University of Applied Sciences students who studies there, research results were similar to other Lithuanian institutions researches with says that in choice of studies in higher education institution the most important are city were person wants to study and where institution is located, higher education institution prestige and quality of the studies. The last two factors are also mentioned as the most important in international researches conducted in Finland, Hungary, Italy, Germany and other countries.

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ASSESSMENT OF CAUSES FOR STUDENT MOBILITY UNDER ERASMUS+ PROGRAM

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Abstract

Studying abroad is an enriching learning experience through which students can meet new people and become actively involved in a new environment (Yang et al. 2011). Cultural distance between the host country and the home country can be a challenge for students, but this process can easily be facilitated when the language of the host country is communicated (Chirkov et al. 2007). In their study, V. Chirkov et al. (2007) found that little attention was paid to promoting students' motivation to study abroad and developing their cultural awareness, which could have helped them gain experience abroad. N. Rinehart (2002) explains that in their academic experience abroad, students are not only introduced to the host university's academic culture, but also face new social norms and the host culture's lifestyle. Thus, students are forced to step out of the comfort zone and adapt their abilities to different socio-cultural contexts in order to expand their abilities for intercultural communication and intercultural understanding (Singh 2013; Yang et al. 2011). It is important to know the strengths and weaknesses of all Higher Education institutions and their International Relations Offices - to know the students' reasons when choosing their city or institution, if they want to work effectively and receive the highest numbers of Erasmus+ students. This article analyses causes for student mobility under Erasmus+ program at one of Klaipeda Higher Education Institution. The article presents the reasons and motives of all incoming students that arrived by Erasmus+ exchange program in the 2018 / 2019 and 2019 spring semester in one of Klaipeda Higher Education Institution. Also we analyse students' interests and expectations before studying and motives to choose Lithuania and Klaipeda as a city for Erasmus+ studies. In our study we used qualitative methods – interviews, statistical analyses, comparative analyses and literature review. Our subjects were students coming to one of Klaipeda Higher Education Institution under the Erasmus+ program. The relevance on the article that we noticed changes in the number of incoming Erasmus+ students in the spring semester of the 2018-2019 academic year to one Klaipeda Higher Education Institution. Since the incoming Erasmus+ students number is one of the important indicators of the Higher Education Institution's activity, it is important to clarify the factors and expectations of incoming Erasmus+ students. The research reveals the causes for student mobility under Erasmus+ program.

KEY WORDS: Erasmus+ mobility; studies; internationalization; expectations; motives.

Introduction

The relevance of the article is that student mobility has been under way since 1987, when the Erasmus program was established as part of the European Union's Lifelong Learning Program. It encourages Europeans to learn and develop new skills throughout their lives. The Erasmus + program is related to higher education and its overall objective is to create a European Higher Education Area by promoting innovation in Europe (European Commission Erasmus+ program guide 2019).

The New Louvain Forum was established to develop access to lifelong learning and equal learning opportunities, as well as to promote international exchanges in higher education. At the Second Bologna Policy Forum in Vienna, the main topics of discussion were the need for higher education systems and higher education institutions themselves to respond to growing needs and expectations, to strike a balance between cooperation and competition in the international arena; The countries involved in the Bologna Process need to liaise, exchange information and act together, including in the run-up to the next Bologna Policy Forum, and support student dialogue worldwide (EAME documents 2012). In order to promote learning, an Operational Program on Investments of the European Union Funds 2014-2020 has been prepared, which, under Priority 9 “Public

Education and Increasing Human Resources Potential”, includes investments in education, vocational training, improvement of education and training infrastructure to provide skills and Lifelong Learning Opportunity (European Union Funds Investment Action Program 2014-2020, 2018).

Internationalization is becoming an increasingly important topic these days, with the European Commission providing new projects and programs to promote the internationalization of citizens, organizations and universities. It is important to know the strengths and weaknesses of all Higher Education institutions and their International Relations Offices - to know the students' reasons when choosing their city or institution if they want to work effectively and receive the highest numbers of Erasmus+ students. Erasmus+ students are one of the indicators of the internationality of Higher Education Institutions in Europe. Due to the fact that the numbers of Erasmus+ students is important, there was a noticeable lack of research in one of Klaipeda Higher Education Institution. There was an equal decrease in the number of outgoing students and an increase in the number of incoming students via the Erasmus+ program. The lack of research and information prompted us to conduct research on this topic to improve the International Relations Office goals of one of Klaipeda Higher Education Institutions. In order to ensure the quality of student mobility and increase incoming

flows, it is important to find out the expectations of students when choosing the Erasmus+ program and their motivation to choose a certain city and institution for their mobility.

During the research there was noticed that there were significant changes in the number of Erasmus+ students coming to the one of Klaipeda higher education institutions in the spring semester of the 2018–2019 academic year. As the number of incoming Erasmus+ students is one of the important indicators of the performance of a higher education institution, the relevance of the article is determined by the need to find out the factors and expectations of incoming Erasmus+ students.

The *scientific novelty* of this article is that internationalization is becoming an increasingly important topic these days, with the European Commission providing new projects and programs to promote the internationalization of organizations and universities. There are some researchers that analyses the Erasmus+ students motives in some countries in Europe: Romania - F. Salajan and S. Chiper (2012), Finland - V. Andreotti (2012) and etc. In Lithuania the topic of internationalization is relatively new and there was no study ever conducted about the reasons and motives of Erasmus+ students in one of Klaipeda Higher education institution and this research is the first one.

The aim is to investigate the expectations of incoming Erasmus+ students and the factors that motivate their choice for Klaipeda and the particular Higher Education institution.

The object of this research consists from all incoming Erasmus+ students in one of Klaipeda Higher Education Institutions who arrived in 2018-2019 and in 2019, in the spring semester – in general there were 51 Erasmus+ students.

The tasks of the research is to identify Erasmus+ students expectations before entering the Erasmus+ exchange program and their motives, by country and city.

Research methods: qualitative research methods such as interviews, questionnaires, statistical data analysis, comparative analysis, literature review and document analysis methods.

Internationalization as a part of Erasmus+ mobility

The concept of mobility is used in many fields such as anthropology, geography, science and technology studies, tourism and transport studies. For example, scientists M. Sheller et al. (2006), Hannam et al. (2006), argue that social science disregards the systematic mobility of people for work, leisure, politics and other purposes. It also states that studies in the social sciences are static. In this context, they emphasize that the concept of mobility is also trying to provide a new perspective on static social sciences.

Professor V. de Oliveira Andreotti of the University of Oulu, along with colleagues, conducted a study on the globalization of students in Finland. Higher education students interviewed before and after the

mobility period were studied. The results of the study revealed that students after the mobility period acknowledged that international exchanges had, in many cases, made a difference, from self-confidence to changing attitudes to the world. It was also noticed that students' abilities and personality traits were strengthened during the mobility, and students got to know themselves better. The greatest impact of the mobility was on increased self-esteem and students' feelings of improved and deepened knowledge (Andreotti et al. 2012).

A study by the Finnish National Agency for Studies on Student Globalization highlighted the importance of getting to know upcoming challenges, discussing a new culture, and setting goals before leaving. Discussing these issues with students can help them adapt to the new environment and get into the rhythm of that country. The results of the Global Minded-ness survey show that graduate students have a slightly more flexible attitude towards international differences than students who remain in their higher education institution. From an equality point of view, it would be crucial for higher education institutions to enable students to adapt to as diverse a group as possible and to encourage each other to benefit from international exchanges (Finnish National Agency for Education 2017). A tolerant approach that comes from international mobilities hugely influences personality, therefore intercultural communication means that one or another cultural attribute of an individual or group is one of many diversity and cannot be absolutized and emphasized (Mauricienė 2013).

Changes in the number of Erasmus+ students coming to Lithuania

Erasmus is a program for higher education, a mobile student seeking European study standards. This program has been implemented in Europe since 1987, and Lithuania joined it in 1999 (Regulation of the European Parliament and of the Council, 2013). From the accession period to the present day, the interest of incoming students in Lithuania is constantly on the rise. The number of students arriving not only for studies but also for practice is increasing.

Before assessing the number of incoming international students in one of Klaipeda Higher Education institutions, it is important to see how this number has changed throughout Lithuania. In the academic year 2015-2016. 2,164 students came to Lithuania for partial Erasmus + studies and 387 students for internships. In 2016-2017 study year 2,408 students came for partial studies and 588 students for internships. According to the latest data, 2017-2018 study year 2,487 students came to study and 712 students came as interns (Table 1) (Education Exchanges Support Foundation Report 2018). Thus, we can see that there is a growing interest of foreign students in Lithuania and studying there.

Table 1. Students coming to Lithuania under the Erasmus + program 2015-2018 m.

Period	Type of the mobility	Numbers	%
2015-2016	Studies	2164	85
	Internship	387	15
	Total	2551	100
2016-2017	Studies	2408	80
	Internship	588	20
	Total	2996	100
2017-2018	Studies	2487	78
	Internship	712	22
	Total	3199	100

It can be assumed that students are very keen on getting to know Europe and therefore choose to study in the European Union. Western countries such as France, Italy, Spain and Germany have the largest populations in the EU so it is natural that the number of students enrolled under Erasmus+ is high (Eurostat data base 2019). Since it is known that in Lithuania the number of students are growing, it might be possible to admit the facts that in one of Klaipeda Higher Education Institutions, the number is also growing.

Erasmus+ students coming to Klaipeda Higher Education Institution

Lithuania is known to receive higher numbers of Erasmus+ students each year. There is a slightly noticeable growing number at one of Klaipeda Higher Education institutions, but the numbers were not too high – around 10 students per semester. Therefore it was important for International Relations offices to know the reasons and expectations of Erasmus+ students so as to increase their numbers in the future.

Since all students’ opinion was important, we decided to use qualitative research methods – interviews with all Erasmus+ students who arrived in 2018-2019 and in 2019 – the spring semester. On the whole there were 51 Erasmus+ students.

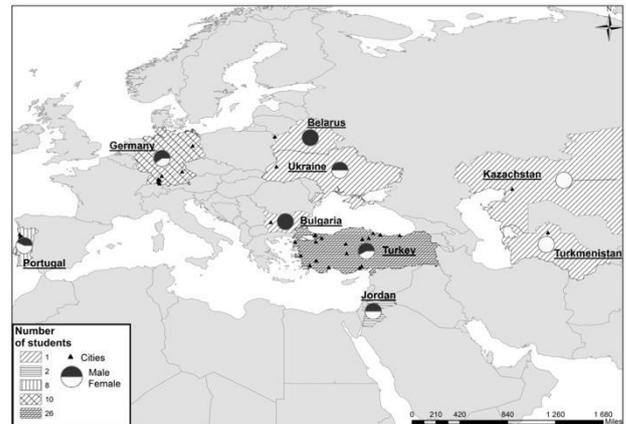


Fig. 1. Distribution of students entering one of Klaipeda Higher Education Institution by country 2018-2019

In the 3 semesters (2018-2019 academic year and in 2019 spring semester) 51 student came to one of Klaipeda Higher Education Institutions, (19 females and 32 males). Most of the incoming students (26) were from Turkey, 8 students came from Portugal, 10 students from Germany, 2 students from Jordan, one student from Ukraine, one from Turkmenistan, one from Kazakhstan and one from Bulgaria (Figure 1). Thus, we can see that students arrive from different countries and distance is not a limit for the mobility. Usually it becomes more usual to travel just to find different types of personalities and learn new skills such as leadership or other (Hanson 2010).

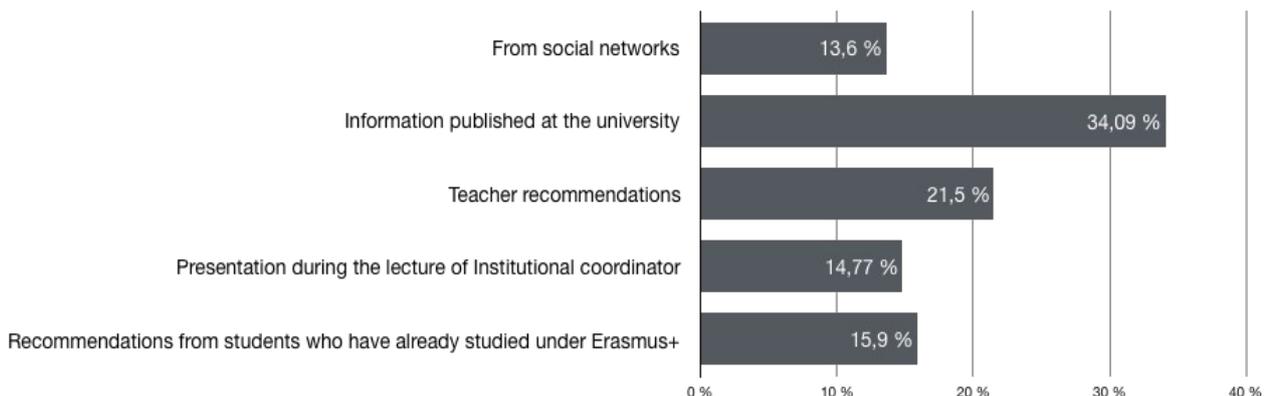


Fig. 2. Information sources for incoming students about mobility opportunities,%

During the study, incoming students were asked where they learned about the possibilities of the Erasmus+ program (Figure 2). Most students accessed this information published at the university (34.09%). Equally important are the recommendation of the head of department/lecturer (21.5%), recommendations from

students who have already studied under the Erasmus+ program (15.9%), as well as the presentation of the Erasmus coordinator during lectures (14.77 %), and information on social networks (13.6%). From these answers we can see that some incoming students are self-sufficient and able to find useful information for

themselves, but for the other students live contact is important and they need help or encouragement from lecturers or colleagues. Intercultural communication can be one of the ways to get to know, understand, exchange knowledge and experience. Erasmus+ mobility is the basis of intercultural communication that is used between different cultures and is often understood as international communication (Baršauskienė et al. 2005).

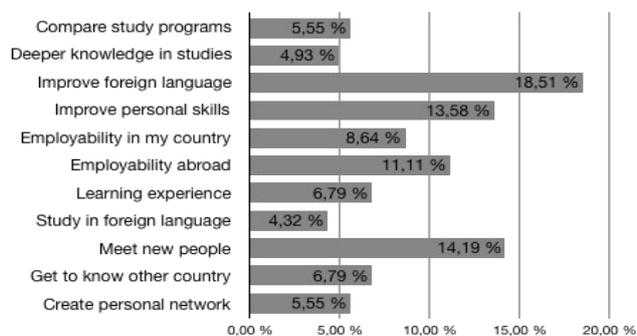


Fig. 3. Incoming students' motivations for Erasmus + study, %

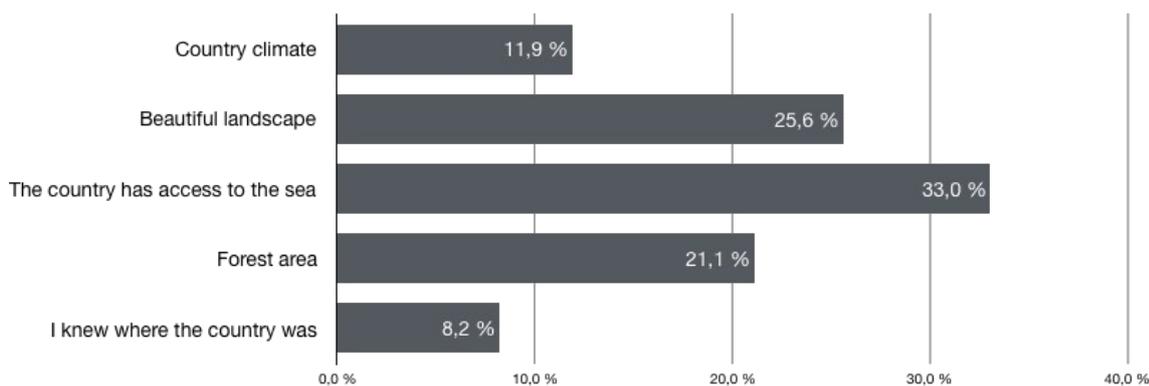


Fig. 4. Incoming students' natural geographical motives (factors) influencing country choice, %

After finding out that incoming students are open minded and willing to improve their personal skills, it is still important to determine what factors influenced Lithuania's choice for Erasmus+ study mobility (Figure 4). During the interviews students identified the main factors that determined their choice. First of all, geographic factors are important for students: the country has access to the sea (33%), landscape (25.6%). To the students it is also important that the country has a forest area (21.1%). The climate of the country matters (11.9%) and it is important to the students that they already knew where the country was located (8.2%). This shows that students collect information about the country before the mobility.

In order to find out the expectations of students, the incoming students were asked at the beginning of the semester what motivated them to study under Erasmus+ (Figure 3). Most students (18.51%) want to improve their foreign language, some hope to meet new people (14.19%), students expect to improve their skills such as adapting to the environment and problem solving, and meet new people (13.58%). The survey noted the interesting fact that for students what matters to increase future employment opportunities at home (8.64%) and abroad (11.11%). So it may be assumed that incoming students purposefully think about their future, laying the groundwork for it and therefore even by personality type, students are committed to the Erasmus+ exchange program. During the mobility students improve their international thinking by understanding that by working together, individuals can improve their knowledge of the world by developing a shared understanding of local/global realities and taking appropriate action as part of their responsibilities (Harwood et al. 2012; Taylor 2015).

During the mobility students become open minded - they improved by developing openness to different cultural experiences and the ability to collaborate with cultural groups, which are a prerequisite for global citizenship. Facing a different reality abroad can take the form of rejection and can lead to a person's openness and communication, which depends on intercultural adaptation and preparation. M. Barrett et al. (2011) noticed that prejudice is only diminished by constant intercultural contact, which involves groups of people having the same status in pursuit of common goals. People outside the international environment may be satisfied with their experience and personal level of thinking about cultural diversity (Cohen et al. 2015; Westrick 2005; Urry 2000).

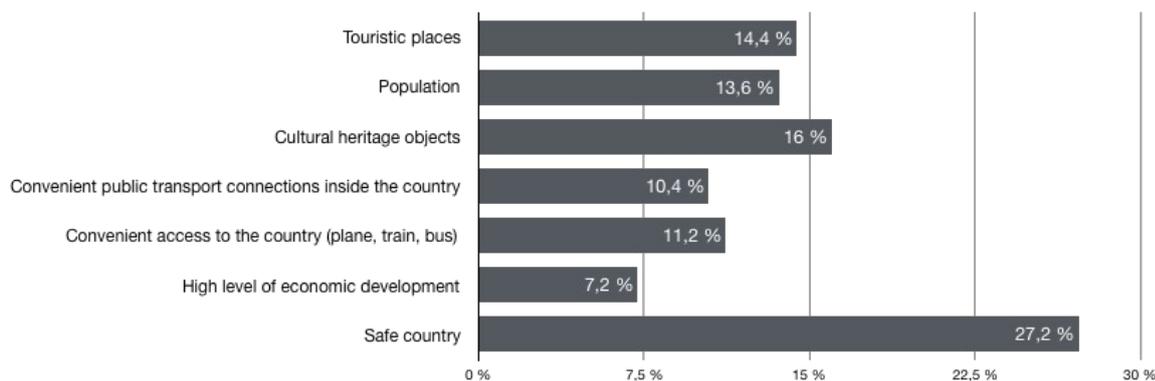


Fig. 5. Incoming students' social economical motives (factors) influencing country choice,%

For students social factors are also relevant: national security (27.2%), cultural heritage objects (16%), touristic places (14.4%), population (13.6%) and convenient access within the country (11.2%), convenient public transport inside the country (10.4%), and a high level of economic development (7.2%). These results indicate that students intend to travel within and outside the country during their studies.

A person is aware of cultural differences and learns more about himself. New experiences allow students to absorb new values, symbols, and norms that are acceptable to society. Constructing a new stage of life gives the individual self-satisfaction and opens up new opportunities for improvement (Phillips 2011).

Table 3. Number of incoming students according to the reasons for the choice of the city (number of respondents in brackets)

Category	Number of students
...because of the sea (port)...	5
... because of the location...	18
... recommendations of friends (coordinator)...	12
... because of the culture...	9
... because it's safe city..	7

After finding out the reasons for choosing the country, students were asked an open question about why they chose Klaipeda. Most repetitive responses were categorized (Table 3). The most frequent students' answers were that they chose Klaipeda because of the climate (18 students), Klaipeda was recommended by their friends (12 students), they chose it because of its culture (9 students), because it is a safe city (7 students) or because of the port (5 students). From these answers we can assume that incoming students have taken into account the natural and geographical conditions, the credibility and the recommendations of the institution when choosing the institution of higher education.

Table 4. Number of incoming students according to the reasons for the choice of the institution (number of respondents in brackets)

Category	Number of students
...coordinator recommended because of good hospitality...	12
... good feedback from other Erasmus+ students...	9
... study subjects fits my study area...	5
... I saw amazing advertisement of this university...	15
... the university is at very good location...	10

Students were asked about the reasons why they chose that particular institution for their Erasmus+ studies and the answers were: students saw an advertisement of the university (15 students), the coordinator in their home university recommended it because of good hospitality (12 students), the university has a very good location (10 students), there was good feedback from other Erasmus+ students (9 students) and the study subjects best corresponded to their study area (5 students). From the students' answers one can see that advertisements influence their choices, as well as the home institution coordinator's recommendations. It might be worth investing in the advertisements in the future to increase the number of incoming Erasmus+ students.

Therefore incoming students are increasingly interested in Erasmus+ studies. They are active and interested in the processes taking place in the European Union. Through their Erasmus+ program, students hope to improve their skills, meet new people and increase their future employability. For students who choose Lithuania for Erasmus+ studies what matters is access to the sea, and national security. When choosing a city in the country, students take into consideration the climate and geographical location. Studying abroad raises not only academic but also spiritual problems (Pruskus 2012). Students studying abroad often see that the new culture is quite different from what they had

hoped for, and there are frequent frustrations. Llurda et al. (2016) singled out "alien student syndrome" as a consequence of cultural shock characterized by a feeling of obscurity, passivity, physical grievance, separation, and disorder.

Conclusions

The research revealed that incoming students from the European Union countries are increasingly interested in the possibilities of the Erasmus+ exchange program in Lithuania, and there is a growing interest of non-EU students. This leads to a methodology applied in Eastern European universities to encourage their students to lay the foundations for their future, to gain knowledge abroad, so that upon returning to their home country, a person could have more opportunities for employment or postgraduate studies.

Incoming students are active, and their expectations are not only to improve their foreign language skills (18.51%) and to meet new people (14.19%) during their mobility, but also to increase future employment opportunities in their own country (8.64%) or abroad (11.11%). We may assume that incoming students are purposefully thinking about their future. Therefore, the Erasmus+ program offers students the opportunity to take on an international and life-long experience.

The interest of incoming students in Lithuania is growing and their motivation to choose this country are: geographical factors – the country has an access to the sea (33%) or the country's landscape (25.6%). Social factors such as the national security of the country (27.2%) or cultural heritage objects (16%) are also important for the incoming students.

Incoming Erasmus+ students choose Klaipėda as a city because of climate (18 students) and because Klaipėda was recommended by friends (12 students).

When students choose the institution for their Erasmus+ studies they mostly pay attention to the advertisement of the university (15 students) and the recommendations of their home university coordinator (12 students).

To sum up, based on this research, the recommendation is to host students in the best way possible, so that they could give the best feedback. Also, advertisements at all Higher Education institutions are very important. During the mobility students should experience local culture. Students improve their communication skills, increase their cultural adaptation and develop a heightened sense of identity.

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PORT CUSTOMS BROKERAGE SERVICES: PARTIAL RECONCEPTUALIZATION OF THE COMPANY

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Abstract

The activities of the chosen company providing customs brokerage services at Klaipeda State Seaport must be at least partially reconceptualized by updating the current concept of the company's operations in order to retain its customers and attract new ones, as competition grows. This requires the identification of the problem areas of the company's activities and the provision of opportunities for their solutions. Partial reconceptualization of the customs brokerage company begins with generation of business ideas. The customs brokerage company should update its services in terms of quality and time. The quality of services could be improved if the customs brokerage company at Klaipeda State Seaport provided not only usual customs brokerage services but also the brokerage services in International Logistics Channels. More customers would choose the company that operates 24/7 because this would speed up the transportation of goods. Partial reconceptualization of the customs brokerage company includes changing the working time and purposeful staff training in order to provide new services.

KEYWORDS: port; customs; brokerage; reconceptualization; services.

Introduction

Relevance and novelty of the research. The activities of the chosen company providing customs brokerage services at Klaipeda State Seaport must be at least partially reconceptualized by updating the current concept of the company's operations in order to retain its customers and attract new ones, as competition grows. This requires the identification of the problem areas of the company's activities and the provision of opportunities for their solutions.

This kind of problem is explored from a global perspective in various aspects by analyzing theories on the transformation of organizational performance (Valackienė 2012; Burke 2014; Anderson 2015; Burke, Noumair 2015; Matulytė 2015; McGuire, Palus, Pasmore, Rhodes 2015; Berends, Smits, Reymen, Podoyunitsyna 2016; Carballo, Graziano, Schaur, Martincus 2016; Gwardzinska 2016; Bočkutė, Danylivaitė 2017; Jurkaitienė, Kiyak, Bružaitė 2017; Chalendar, Raballand, Rakotoarisoa 2019), which may be adapted to partial reconceptualization of the activities of the company providing port customs brokerage services.

The object of the research is port customs brokerage services.

The subject of the research is opportunities for partial reconceptualization of the company's activities.

The purpose is to conduct an investigation of attractiveness of the chosen company providing customs brokerage services at Klaipeda State Seaport in order to partially reconceptualize its activities.

Methodology and organization of the research

The two main *methods* used are as follows:

- Structured interview (expert method) is used when interviewing freight forwarders about the customs brokerage services in order to provide hypothetical opportunities for partial reconceptualization of the company's activities (the expert method includes experts who are business customers of the customs brokerage company and use its services on a daily basis);
- Hypothetical modeling of partial reconceptualization of the company's activities.

Factors contributing to *the validity* of this study are the following:

- Adaptation of customs brokerage theories to the interview questionnaire;
- The sample size is 20 freight forwarders (representativeness is 100%);
- The sample is homogeneous because all interviewees are employees of the same logistics company;
- Research ethics ensuring greater reliability of responses.

The research *tool* is a questionnaire consisting of 4 chapters covering the following topics:

- Current concept of activities of the customs brokerage company;
- Generation of new business ideas;
- Formulation of a new concept of the company's activities;
- Realization of a new concept of the company's activities.

The interview questionnaire consists of 20 questions based on 4 topics listed above, which is applied in order to investigate the activities of the company providing customs brokerage services.

The study was conducted in May 2019.

The basic *methodological principle* is progressivism, which emphasizes the creative development of activities and serves as the basis for the idea of partial reconceptualization of the company providing customs brokerage services at Klaipėda State Seaport.

The type of the research is descriptive.

The limits of the research indicate that its results may only be applied to the activities of the chosen company providing customs brokerage services.

Peculiarities of customs brokerage activities

A customs broker is an economic entity of the Republic of Lithuania, which in the established manner has received the right to provide customs brokerage services. A customs broker representative means a founder (stockholder), head of administration or employee whose qualification was approved in the established manner and who is included in the list of representatives of the customs broker and has the right to provide customs brokerage services.

Customs brokerage services are provided in accordance with the written contract concluded with a person or in accordance with the person's written mandate for a fee or free of charge (it is specified in the written contract). A customs broker represents a person at customs clearance by acting on behalf of the person in his/her interests or acts as a mediator at customs clearance acting on behalf of its own and on behalf of the person.

Customs brokers help customers complete general administrative documents of import, export and transit procedures. They complete and draw up other international documents of cargo transportation, i.e. CMR waybills and TIR Carnet declarations, including electronic ones.

At the customer's request, customs brokers:

- Carry out various customs procedures;
- Submit requests;
- Take samples of goods;
- Prepare certificates of origin of goods;
- Receive certificates of origin of goods (Customs Brokerage Rules 2002).

A TIR Carnet is a document issued by the TIR Association that is used to transport the goods from the European Union to third countries. The TIR Carnet is also used for the international transportation of goods. It guarantees international delivery of goods from the consignor to the recipient. The TIR Carnet is issued to carriers who are members of the TIR Carnet Association. Preparation and submission of TIR Carnet electronic data is a service during which an electronic document is completed and uploaded to the customs system (Baublys 2016).

According to the CMR Convention, a CMR waybill approves the contract of carriage of goods and regulates liability for damage caused during transportation. In case of litigation, a duly completed CMR waybill is proof of

the fact that the goods have been transferred to the carrier.

This document also confirms that transportation is performed in accordance with the requirements of the CMR Convention. It is important to know that in cross-border disputes, the provisions of the CMR Convention take precedence over national law.

The exporter is the person established in the customs territory of the Union who is, at the time of acceptance of the declaration, a party to the contract concluded with a consignee in a third country. The exporter has the right to decide whether the goods must be transported to a destination outside the customs territory of the Union.

The export procedure shall be applied when Union goods are taken out of the customs territory of the Union to third countries or into special fiscal territories. Under the export procedure, an electronic export declaration must be lodged. Any person who wishes to import goods from third countries must have an EORI number and be registered in the Customs Debtors Register. Goods brought into the customs territory of the Union must be stated in the general declaration of entry, which shall be submitted by the carrier. The general declaration of entry is provided to the first customs office of entry within a specific period prior to the entry of the goods into the customs territory of the Union.

After Lithuania's accession to the European Union, international road transportation continues under the TIR transit procedure. This procedure is applicable in accordance with the Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention). The TIR transit procedure is carried out using a TIR Carnet, which is both a customs declaration and a guarantee. After Lithuania's accession to the European Union, goods transported using a TIR Carnet may be transported only if their transit route passes through the territory of a third country (Sarapiniėnė, Avižienis 2008).

The general transit procedure is applied to the goods that are transported between the countries of the European Union and the countries of the European Free Trade Association: Iceland, Norway, Switzerland, and Liechtenstein. This procedure is carried out in accordance with the Convention on Common Transit.

In the case of common transit, the T1 or T2 procedures shall be applied, depending on the status of the goods transported (Community goods or non-Community goods).

The following documents are used in a procedure of continuous activities:

- A general administrative document;
- A transit accompanying document or accompanying document of transit and/or security to which a list of the goods or the list of transit and/or security goods is added, if needed.

The client under the customs brokerage service agreement is represented at customs. A customs broker prepares the documents and physically represents the client during cargo inspection and communicates with customs officials.

Customs brokers represent customers (clients) at the Territorial Customs or Customs Department, i.e. they:

- Submit requests;

- Obtain permits;
- Extend the transit period;
- Receive explanations concerning the customs procedures or customs-approved actions and the classification of goods;
- Present samples of goods to the customs laboratory;
- Provide guarantees for import and transit procedures;
- Advise on customs procedures and customs authorized activities;
- Determine customers' needs;
- Advise them on the choice of the intended customs procedure, etc. (Customs Brokerage Rules 2002).

The company's specificity must be taken into account in order to partially reconceptualize its activities concerning customs brokerage services. It must start with intellectual activity generating new ideas. It is necessary to rethink the concept of a customs brokerage company and update the mission and vision of its activities. Partial reconceptualization of company's activities does not make sense if it is only at the level of ideas and concepts. They need to be implemented. Reconceptualization of the company's activities needs management control in order to realize everything properly. Management control is crucial in achieving new goals.

In addition, it is important to consider two aspects of reconceptualization, i.e. reorganization and restructuring:

- The first objective is a new business model through reorganization of activities of the company that provides customs brokerage services;
- The second objective is a new adaptive structure of an organization through restructuring of its activities.

The key steps in the company's reconceptualization process in accordance with the theories (Burke 2014; Anderson 2015; Matulytė 2015; McGuire, Palus, Pasmore, Rhodes 2015) are as follows:

- Rethinking new services and potential customers;
- Rethinking the mission and vision of a company;
- Strategic and tactical marketing plan.

It is necessary to regularly change some activities in order to ensure fast provision of high-quality customs brokerage services. A customs brokerage company must be competitive in a changing market. Therefore, it must take into account the needs and wishes of its customers. All of this can be accomplished by partially reconceptualizing the activities of the chosen customs brokerage company.

The company's reconceptualization should begin with individual and collective rethinking of its relevant issues. New ideas need to be generated in order to improve services provided by the company. Customs brokerage services may be improved in terms of time, cost, and quality.

Typically, most small companies providing customs brokerage services are limited to export, import and transit procedures. However, they may provide not only individual, i.e. specific services, but also other services that are not prohibited by law.

Customs brokers gradually become economic entities providing logistics services:

- Customs brokers become insurance agents or insurance brokers;
- Freight forwarders become customs brokers;

– Founders of a customs warehouse become insurance brokers (agents).

It is one of the most important changes in the activities of customs brokers in Lithuania. This makes it easier for customs brokerage companies to compete with similar companies.

Customs brokers very often operate only in their own country. This is an inconvenience to entities of International Logistics Channels who use their services. Mediators of International Logistics Channels are not usually required for the transportation of goods and insurance or provision of other logistics services in transit countries. The opposite happens in the case of customs brokerage services. It is necessary to look for persons who will carry out the mandatory customs formalities in each country. Lithuanian customs brokers and other entities, e.g. from neighboring countries, should develop international cooperation in order to carry out the customs formalities and commit to customers to carry out the customs formalities in International Logistics Channels or at least in its separate stages.

Another untapped opportunity for customs brokers' activities is to complete the customs formalities by using both possible forms of customs representation. Some clients, especially from other countries, would certainly benefit from indirect customs representation provided by customs brokers. The right of representation is provided for in the Community Customs Code. Each person may appoint his/her representative who is authorized to represent him/her at customs by carrying out the acts prescribed by the customs rules.

Representation may be:

- Direct when a representative acts on behalf of another person and in his/her interests;
- Indirect when a representative acts in his/her own name but on behalf of another person (Community Customs Code).

Only customs brokers have the right to directly represent other persons in the customs by submitting a customs declaration in the customs territory of the Republic of Lithuania. This is stipulated in the Law on Customs of the Republic of Lithuania.

As regards the reconceptualization of activities, the fact that most clients need a customs broker to work 24/7 should be taken into account. Most small customs brokerage companies are open from 8am to 5pm. Customers who transport goods prefer to use their time more productively without having to wait for a customs broker, e.g. until the morning of the next day if there was a problem by getting the goods ready in the evening.

It is necessary to change the business concept in order to improve the services of a customs broker. A new mission and vision needs to be defined by formulating new goals and objectives. They should be implemented systematically. It is important to consider the innovation lifecycle, which includes:

- Generation of ideas;
- Creation of innovation;
- The spread of innovation;
- The use of innovation.

A marketing plan needs to be developed in order to successfully reconceptualize the company's activities in accordance with new ideas. A new marketing plan

enables the search for new customers and retention of the existing loyal ones.

Possibilities of partial reconceptualization of the company's activities

Service quality must be maintained in order to attract new customers and retain the existing ones. The research has identified the problem areas and provided opportunities for partial reconceptualization of the company, which would allow carrying out the tasks provided for by the organization's strategy more appropriately and efficiently in terms of time.

The problem areas identified in the evaluation of the company's activities hinder the smooth operations of the customs broker. The opportunities for improving customs brokerage services have been provided in order to solve the problem areas. The hypothetical model for partial reconceptualization of the company's activities is presented below (Fig. 1).

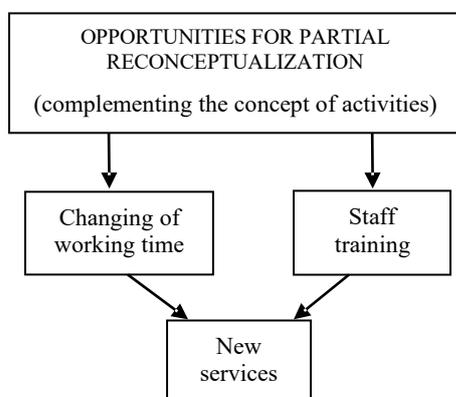


Fig. 1. The hypothetical model of partial reconceptualization

The direction of the arrows in the figure shows that the opportunities of the company's partial reconceptualization include changing of working time and staff training in order to provide new services of high quality. It is necessary to attract new customers.

The theoretical principles of the concept of the company's activities must be taken into account when carrying out partial reconceptualization of the chosen company's activities. Existing operating principles of the company are not sufficient in this case to retain the existing customers and find new ones. Complementing the list of principles and activities is necessary when renewing the concept of the company.

The study and responses of the interviewees have indicated that the first problem area of the company's activities is short working hours. The interviewees (100%) said that they would be satisfied and encouraged to continue being loyal customers if the working hours of the managers (declarants) were not from 9am to 5pm but that they were available 24/7. Drivers' downtime in case of problems that can only be solved by managers (declarants) would be avoided by changing the principle of working hours.

Such kinds of situations are often encountered when unforeseen problems occur with the freight carrier at the Border Crossing Post after 5pm. In this case, drivers must

wait until 9am of the next day when managers (declarants) begin their work and can help solve the problem because, until the problem is resolved, the freight carrier cannot leave the territory of Lithuania.

The mentioned operating principle, i.e. working hours, needs to be changed, so that the freight carrier can contact the managers (declarants) quickly concerning the problems in order to avoid unnecessary downtime for him/her and deliver the cargo to the right place as soon as possible. Nevertheless, longer working hours would not only help to retain existing customers but the company would be more attractive to new ones.

The second problem area, which is a very important principle of the company's activities, is purposeful staff training. It is necessary to constantly adapt to change in order to continuously provide quality services.

Customs brokerage activities are carried out using electronic programs. These electronic programs are regularly updated. Thus, employees of the chosen company that provides customs brokerage services must be made aware of the program updates. They can learn about the changes in the programs and how to use them only in seminars organized by the customs administration, during which it is consistently and clearly stated and displayed how new programs work and how one should use them for work.

Most of the interviewees (90%) stated that continuous training of staff is essential. Updating of programs is related to legislation. The managers are able to work with new programs when they know everything that is relevant in relation to them. All the necessary information about using new programs is not published on the Internet or anywhere else. Thus, it is necessary to send managers to certain seminars, which are very important in ensuring the quality of their work.

The interviewees pointed out the third very important principle of the concept of the company, which needs to be updated and expanded with new services. The interviewees (100%) said that the company should provide new services, such as a completion of the export procedures and use of the Freight and Goods Information System. These changes would encourage customers to remain loyal and make the company more attractive to new prospective ones.

The Freight and Goods Information System has been installed at Klaipeda State Seaport. This System is intended for transmission and processing of the information about cargoes transported through Klaipeda State Seaport. The export procedure shall be applied where the Union's goods leave the customs territory of the Union to third countries or to special fiscal territories. When goods are exported from Lithuania and the European Union, the export documentation must be submitted to the controlling customs office. This documentation is prepared by the manager (declarant). This is accompanied by an electronic export declaration (delegated act).

The documentation required for the export procedure shall be completed and prepared as follows:

- The general administrative document shall be completed in accordance with the current export documentation procedure;

– Transport documents are prepared for the goods transported by road and rail internationally (CMR, TIR Carnet, SMGS waybills);

– Other documents accompanying the cargo shall be arranged.

Currently, the Freight and Goods Information System is used by more than 460 companies and government agencies operating at Klaipėda State Seaport. Thus, the company needs to consider a new service – working with the Freight and Goods Information System when updating its business concept. The company would become more attractive to new customers and should be stable in the face of growing competition.

The Freight and Goods Information System would be beneficial for the company because the exchange of electronic data at Klaipėda State Seaport would simplify and speed up the process of cargo transportation through the port. This system allows eliminating the flow of many paper documents operating between ship agencies, freight forwarders, stevedoring companies, customs offices and other state authorities that control cargo and goods. These documents include various import, export, transshipment permits, stowage certificates, quality certificates and the like.

Managers (declarants) as well as forwarders, agents and stevedoring companies would not waste time because they would be able to receive and submit electronic documents to one another and to public authorities through a single access point.

The Freight and Goods Information System would enable customs and the customs brokerage company to obtain not only prior information and documentation for risk assessment but also operational and statistical information on cargo at the seaport. In addition, the utilization of the system's capacity would facilitate the control of port stevedoring and shipping operations and the provision of higher quality public services.

Conclusions

Partial reconceptualization of the customs brokerage company begins with generation of business ideas. The customs brokerage company should update its services in terms of quality and time. The quality of services could be improved if the customs brokerage company at Klaipėda State Seaport provided not only usual customs brokerage services but also the brokerage services in International Logistics Channels. More customers would choose the company that operates 24/7 because this

would speed up the transportation of goods. Partial reconceptualization of the customs brokerage company includes changing the working time and purposeful staff training in order to provide new services and attract new customers.

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INDUSTRY DEVELOPMENT DURING CRISIS: THE CASE OF THE BREWER INDUSTRY IN CYPRUS, GREECE, IRELAND AND PORTUGAL (1)

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Abstract

This article examines the evolution of brewing during the financial crisis on the basis of four countries, Cyprus, Greece, Ireland and Portugal. These countries asked for financial assistance and imposed restructuring programs that exacerbated the financial crisis. The examined period is extended from 2008 to 2017 and it is a period during which the adjustment programs were applied to these countries. The purpose of this article is to see if during the crisis an industry can have growth prospects. This search is based on the fact that during the crisis some countries or sectors or products can perform better than the whole. The examination was based on a comparative analysis between the four countries but also with the European Union countries considered as a whole. The paper focused on the comparative evolution regarding production, consumption, number of breweries and microbreweries and direct employment. The results showed that brewery production in the four countries was affected by the country's GDP growth. However it increased particularly in the second half of the period considered. This evolution was positively affected by the growth of tourism, especially in Greece and Portugal. The creation of breweries by small producers, especially in the second half of the period, is characteristic of the brewery's growth. New microbreweries have helped to create new jobs in countries with higher unemployment than the EU as a whole.

KEY WORDS: Brewer industry; microbrewery; crisis; Cyprus; Greece; Ireland; European Union; Portugal.

Introduction

The crisis had several aspects such as financial, economic, productive and national. The crisis consequences have been different on national economies and productive sectors. Some countries suffered more from the crisis; an example is four European countries, Cyprus, Greece, Ireland and Portugal. Some sectors suffered from the important depression such as the case of construction in several countries and European regions. Other sectors had significantly better results such as the case of tourism in tourist regions and agriculture activities, (see for example the Greek case on tourism, Karafolas, 2018 and agriculture, Karafolas and Alexandrakis, 2015). The Economic crisis contributed to the professional transition either by migration abroad or internal migration. In the latter case, migration from large urban centers to the countryside is often associated with employment in agriculture and agro-tourism activities. One of these cases is the mid-2010 boom in microbrewery and the creation of microbreweries. The

brewery industry and in particular microbrewery could be a pole for local development based on local production.

This article examines the development of the brewery industry in the period of the financial crisis. The investigation focuses especially in the four countries that asked for financial assistance from the European Bank, the European Commission and the International Monetary Fund (IMF) and applied adjustment programs agreed with their lenders. In 2010 and 2012 Greece received financial assistances, (European Commission 2018a); in 2011 Portugal asked for financial assistance, (European Commission 2018b), followed one year later, 2013, by two other countries, Cyprus, (European Commission 2018c), and Ireland, (European Commission 2018d). The economies of these countries had to face the global financial crisis but also their specific problems. We may note for example the public debt and public deficit in the case of Greece, (Karafolas, 2018) and in Portugal, (IMF, 2012); the involvement of Irish banks to enormous speculative exposures related to house

loans, (Clarke and Hardiman, 2012); the consequence of Greek crisis to the Cypriot economy because of the involvement of Greek banks to Cypriot economy, (Karafolas, 2019), and Cypriot banks to the Greek economy.

The international financial assistance was followed in every one of these countries by stability measures that caused a major recession in the economy that resulted in the decline of the gross domestic product and the growth of unemployment, two of the main economic indicators examined in this investigation.

The paper focuses on a comparative examination of the brewery industry in order to investigate a sector that could present growth possibilities and perspectives during a period of economic decline. Furthermore, the microbrewery effect presents a particular interest due to its development in the decade of 2010. Thus, this investigation presents a scientific interest because, to our knowledge, this work is the first to present a comparative analysis of brewer industry during crisis and in particular between countries whose economy received financial assistance.

Brewery and in particular microbrewery has been the subject of studies examining the development of the local economy through rural and agro-tourism in general (see Everett, S. and C. Aitchison, 2008; Fox, 2014; Jakob, 2013) and the job prospects and entrepreneurship, (see Banks, 2010, Thurnell-Read, 2014). Other studies focused on country's case such as United Kingdom (Danson et al., 2015) and Quebec, (Blanchette, 2016).

After the introduction, section 2 presents the methodology and data followed by the results in section 3 and finally the conclusions.

Methodology and data

The examination is based on a number of parameters that are production, consumption, number of active breweries and in particular breweries, as well as direct to the brewery industry employment. Between the examined countries, two of them have a similar population of 10 million, Greece and Portugal, while Ireland has half, 5 million; Cyprus is one of the less populated European Union (EU) countries of about 0, 9 million habitants. Consumer population however may grow considerably in several periods because of the tourism movement on long holidays or short-day tourism. Within these countries the beer consumption is not the same and it is due to the consumption habit. Consumption per capita is lower in Mediterranean countries compared to the EU-28 average; on the contrary it is higher in the case of Ireland, table 1.

Table 1. Beer consumption per capita, average of period 2008/2017, (in liters)

Country	Consumption
Ireland	84
Cyprus	53

Portugal	51
Greece	36
EU-28	72

Source: The Brewers of Europe, 2018, and 2014 (author's calculations)

The examined period is from 2008 to 2017. It begins at the global financial crisis and it includes the core of the financial and economic crisis of countries that asked for financial assistance and adopted austerity programs. For some of them and for most of the rest of EU-28 countries this period includes the post crisis period.

Through the evolution of the mentioned parameters between the examined countries and compared to the EU-28 countries the paper poses some questions. Are there similar or different characteristics in this evolution and what are they? During this period are there parameters that differentiate the countries? In order to have comparative data the main statistical source is provided by the Brewers of Europe. In some cases sources providing data on a specific country are used as well.

Results

The evolution of production

Considerable differences are observed regarding countries' production of beer through the example of EU countries of medium population, between 4 and 11 million, on the basis of the average production during the period 2008/2017, table 2. Ireland and Portugal approach the average of 13 countries that is 7, 6 million hl, (hectoliter=100 liters). On the contrary Greek production is limited to 3, 9 million hl, which is one of the lowest productions in this period.

During the examined period, 2008/2017, the average of beer production presents a negative sign for all four countries and the total of EU-28 countries, table 3. The negative sign is not the same during all the years of the period. It is negative in the beginning of the financial crisis for all examined cases. In particular for the four examined countries, it is negative during the periods that followed the agreement of financial assistance, table 3. The comparison of beer's production and this of gross domestic product, (GDP), table 4, shows differences in the evolution of the two aggregates.

Table 2. Beer production of EU countries with medium population *, average of period 2008/2017, (in 1.000 hl **)

Country	Production
Czech Republic	19.153
Belgium	18.864
Austria	8.978
Ireland	8.060
Average of 13 countries	7.627
Portugal	7.518
Hungary	6.316

Denmark	6.203	<i>Cyprus***</i>	346
Bulgaria	4.996	Source: as table 1	
Sweden	4.631	* Population between 4 and 11 million habitants.	
Finland	4.136	** hl: Hectoliter is a metric unit of volume equal to 100 liters.	
Greece	3.896	*** Cyprus is included for the paper's comparison purpose	
Croatia	3.531		
Slovakia	2.875		

Table 3. Annual evolution of beer production, (in %)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average 2017/08
Cyprus	-10,1	-4,5	-7,6	4,8	-2,1	-1,2	7,2	7,0	4,9	-0,2
Greece	-7,2	-5,7	-6,1	1,2	0,1	-1,3	3,2	0,2	-0,7	-1,8
Ireland	-9,1	2,6	3,2	-3,7	-2,3	-9,0	6,4	-1,0	4,4	-0,9
Portugal	-4,6	6,1	-0,2	-3,8	-8,3	-0,5	-11,3	0,1	8,0	-1,6
Total EU 28	-3,8	-1,5	1,4	-0,6	-0,8	0,2	1,6	0,6	0,2	-0,3

Source: As table 1

Note: compared to previous year

Table 4. Annual evolution of gross domestic product, (in %)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average 2008/17
Cyprus	3,6	-2,0	1,3	0,4	-2,9	-5,8	-1,3	2,0	4,8	4,5	0,5
Greece	-0,3	-4,3	-5,5	-9,1	-7,3	-3,2	0,7	-0,4	-0,2	1,5	-2,8
Ireland	-4,5	-5,1	1,8	0,3	0,2	1,4	8,6	25,2	3,7	8,1	4,0
Portugal	0,2	-3,0	1,9	-1,8	-4,0	-1,1	0,9	1,8	1,9	2,8	0,0
EU-28	0,5	-4,3	2,1	1,7	-0,4	0,3	1,8	2,3	2,0	2,5	0,8

Source: The World Bank, 2019 (author's calculations)

Note: compared to previous year

In the case of EU-28 an almost similar evolution is observed even if the GDP has a higher growth during all the examined years. An analogous evolution is presented for the Irish case for which GDP has a higher growth compared to beer production, tables 3 and 4. For the other countries differences on the evolution of both aggregates are more obvious. In the Greek and Cypriot cases the beer production follows a higher growth compared to the GDP in the second half of the examined period, which is during the period of the application of the adjustment programs, tables 3 and 4. This could predict development potentialities of beer production in both cases. Higher fluctuations of beer production compared to this of GDP are observed in the Portuguese case. By the end of the period, the growth on beer production replaced a period of long decline; we note that GDP's growth had begun two years earlier, tables 3 and 4.

The tourism effect is not negligible at all, especially in this period. Especially in the Greece and Portuguese and less for Ireland an important growth on arrivals appears the time period 2013-2018, table 5.

n/a.: Not available

Table 5. Number of arrivals in tourist accommodation, (in millions)

	Cyprus	Greece	Ireland	Portugal
2006	2,3	14,0	8,0	13,1
2007	2,3	16,0	8,3	14,0
2008	2,3	16,0	8,0	14,4
2009	2,3	20,9	7,2	14,1
2010	2,4	20,6	7,1	14,5
2011	2,5	21,1	7,6	14,9
2012	2,5	18,2	7,6	14,6
2013	2,4	20,1	8,3	15,9
2014	2,4	21,8	8,8	17,9
2015	2,3	24,1	9,5	19,8
2016	2,7	25,0	10,1	21,9
2017	3,0	26,1	n/a	24,6
2018	3,2	28,7	n/a	25,9

Source: a/ Statista, 2019: cases of Cyprus, Greece and Portugal, b/ CEIC, 2019: case of Ireland, (author's calculations)

The comparative analysis shows important margins for growth in all cases. Two parameters that can help to better understand potentialities of production are the evolution of consumption and the number of breweries created.

Does production volume cover the countries demand for consumption?

Table 6 presents the production volume compared to consumption for every one of the examined cases. One has to note that while production volume refers to the domestic one, the demand for consumption may be covered partly by imports. Production volume is higher to consumption for

EU-28 countries and it is much higher in the case of Ireland and Portugal, table 6. On the contrary production volume is significantly lower to consumption demand in the case of Cyprus. In the Greek case production almost covers the demand for consumption. In both, Greek and Cypriot cases a significant part of consumption demand is covered by local production the last years of the examined period, table 6.

This evolution shows the potentialities of beer production in both countries. One question rises through this evolution; is this evolution related to a growth of production units or even new companies?

Table 6. Percentage of beer production volume to beer consumption volume, (in %)

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cyprus	90	74	66	69	70	67	75	75	78	74
Greece	98	96	96	90	95	96	96	100	99	100
Ireland	170	166	171	180	175	185	163	176	168	179
Portugal	132	128	141	156	162	148	153	136	132	133
Total EU-28	108	108	109	109	109	110	110	110	110	111

Source: As table 1 (author's calculations)

The evolution of breweries

The number of active breweries grew considerably during the examined period for the EU-28 countries,

table 7; it grew in the second half of the period on a much higher level for the three examined countries, Greece, Ireland and especially Portugal, table 7.

Table 7. Number of active breweries

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average growth 2008/17
Cyprus	2	2	2	2	2	2	4	4	3	3	8,3%
Greece	11	11	11	17	18	20	20	28	43	43	18,3%
Ireland	26	26	26	26	26	30	50	64	93	102	18,3%
Portugal	7	7	7	7	9	18	35	64	94	120	42,3%
Total EU-28	3.454	3.714	3.988	4.393	5.081	5.770	6.528	7.410	8.501	8.350	10,4%

Source: As table 1 (author's calculations)

This evolution was influenced by the creation of microbreweries, table 8. While at the beginning of the examined period for Greece and Portugal no microbrewery is mentioned, since 2011 their number multiplied. In Portugal, the number of microbreweries grew from 0 in 2010 to 115 in 2017 and in Greece from

7 in 2011 to 30 in 2017, table 8. An analogous phenomenon is observed in Ireland that had already a significant number of microbreweries. The creation and development of microbreweries contributed to the observed growth of beer production during the last years of the examined period.

Table 8. Number of microbreweries

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average growth 2011/17
Cyprus	n/a	n/a	n/a	0	0	0	2	2	1	1	-5,6%
Greece	n/a	n/a	n/a	7	8	9	10	15	25	30	19,4%
Ireland	15	17	20	24	29	40	60	76	99	105	19,1%
Portugal	0	0	0	1	3	12	30	60	89	115	91,9%
Total EU-28	1.755	2.123	2.407	2.670	3.094	3.616	4.626	5.225	6.433	6.998	11,7%

Source: As table 1 and Shawn Day, 2018 (author's calculations)
n/a: Not available

During the growth of microbreweries the growth of investments is observed for the four countries. After a long period of decline, in 2104, investments growth begun for Ireland and Portugal; it followed in the next years for Cyprus and Greece, table 9. The growth of investments in the case of microbreweries was financed through several forms. Beyond the traditional ways of financing investment, self-financed and banking financing, other forms related to public financing or non-banking financing tools are used. Funds from European Union and national programs are one of these tools. The European Regional Development Fund

financed projects related to small beer craft as in the case of the UK, (Beach, 2019). European and national programs lunched through specific programs as the Rural Development Program and the Community Led Local development/LEADER (Liaison Entre Actions de Développement de l' Economie Rurale –*Links between actions for the development of the rural economy*) that are interested on the rural activities, (National Rural network, 2018). An interesting case presents the financing through crowd funding; Mac an Bhaird et all. (2019) examined the financing of Irish craft brewers through the crowd funding platforms.

Table 9. Annual evolution of gross fixed capital formation (investments), (in %)

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cyprus	-15,3	-0,4	-13,5	-20,1	-15,7	-11,8	0,6	48,9	26,1
Greece	-14,3	-19,6	-20,4	-23,6	-9,0	-6,1	-0,6	3,9	9,2
Ireland	-22,9	-18,0	-3,6	21,1	-2,9	20,6	57,3	53,1	-3,7
Portugal	-9,1	-0,6	-12,2	-17,9	-5,6	3,4	7,2	3,6	13,8

Source: Eurostat, 2019, (author's calculations)

Consequences on the employment

Has the growth of breweries influenced the employment in this industry? The creation of new companies produces new jobs. The question that is raised is on the consequences overall in the brewery industry. Before we answer the question two parameters have to be mentioned; a/The brewery industry is mostly capital intense and consequently

creates less jobs compared to labor-intensive industry; b/Any employment effect of this industry must be compared to the unemployment of the economy for every examined case. The table 10 presents the annual unemployment rate in the five examined cases the same period.

Table 10. Annual Unemployment rate, (in %)

	Cyprus	Greece	Ireland	Portugal	EU-28
2008	3,7	7,8	6,8	8,8	6,4
2009	5,4	9,6	12,6	10,7	9,0
2010	6,3	12,7	14,6	12,0	10,2
2011	7,9	17,9	15,4	12,9	10,1
2012	11,9	24,5	15,5	15,8	10,8

2013	15,9	27,5	13,8	16,4	11,2
2014	16,1	26,5	11,9	14,1	10,5
2015	15,0	24,9	10,0	12,6	9,6
2016	13,0	23,6	8,4	11,2	8,7
2017	11,1	21,5	6,7	9,0	7,6
2018	8,4	19,3	5,8	7,0	6,6

Source: Eurostat, 2019a, (author's calculations)

The unemployment rate of the four examined countries is higher, even double in some cases, compared to the average of EU-28. In the four countries unemployment grew considerably in the periods following the adjustments programs. Only by the end of the examined period notable decline of unemployment is observed; although it remains higher than the average of EU-28, except Ireland on 2008-2017, table 10.

Table 11 presents the number of employees working directly in breweries; the data does not include related sectors such as agriculture offering the raw

material for brewing. The total of EU-28 direct employment declined by 1, 1% over the examined period, mainly in the first half of the period that is during and just after the global financial crisis, table 11. For two countries, Cyprus and Ireland, a notable decline of direct employment is observed, especially at the end of the period. In two other countries, Greece and Portugal, the microbrewery effect permitted the growth of direct employment. In the Greek case this effect has an additional importance because of the high unemployment rate in the country, table 10.

Table 11. Direct employment to brewery industry on 2008-2017 (rounded to units 100) and average growth of the period (in %)

Country	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average evolution 2017/08 *
Cyprus	0,8	0,8	0,8	0,7	0,6	0,6	0,6	0,6	0,6	0,6	-3,0%
Greece	1,8	1,9	1,9	1,9	1,9	1,9	1,9	2	2	2	1,2%
Ireland	1,8	1,9	1,9	1,6	1,5	2	2	1,7	1,4	1,1	-4,1%
Portugal	1,5	1,5	1,5	1,5	1,4	1,5	2,1	1,9	2,1	n/a	5,2%
Total EU- 28	138	131	129	128	125	124	126	122	122	125	-1,1%

Source: as Table 1 (author's calculations)

* For Portugal the average is the period of 2016/08

n/a: Not available

Conclusions

This paper examines the brewery industry during the crisis period and in particular in four countries that faced the consequences of adjustment programs following the financial assistance, Cyprus, Greece, Ireland and Portugal. The question was if in these specific countries economic consequences could lead to the search for new investment opportunities. The examination was based on some parameters that were the evolution of brewery production and consumption on the one hand and on the other hand the evolution of the number of breweries and the consequences in employment. A comparative analysis between four countries and the total of EU-28 countries could help to better understand the examined issues. Further, evolution of production and employment would be better understood when compared to the GDP growth and unemployment. A main conclusion on the beer

production is that it is influenced by the evolution of GDP and it presents a strong growth in the four examined countries by the end of the examined period, since 2015 for the three and 2014 for Portugal; the same period investments increased significantly. The growth in this specific period is much higher compared to the total of EU-28 countries. For Greece and Portugal the parameter of tourism seems to have a positive effect especially after 2014. The growth of beer production permitted in the Greek case to cover the consumption by its national production as in the case of Ireland and Portugal. The second half of the examined period the huge growth of microbreweries is observed, especially for Portugal, Ireland and Greece. This growth offered new jobs. The employment effect is very important to the examined countries that had unemployment rates much higher compared to the EU-28 average in the examined period.

The paper shows overall an interest of producers to the small brewery industry. A policy favoring this interest should have positive effects by growing the

employment. Policies of facilitating the financing of small craft industries should have positive results. Creation of clusters between these craft industries could facilitate the entry on the national market as well. The creation of a kind of “Beer Roads” should facilitate the access and knowledge to microbreweries.

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ANTHROPOGENY: HUMAN QUALITY VIRTUAL LEAP

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Abstract

Not seeing to great achievements of humanity on investigating and discovering of the Universe, a Human still the least understood part of the World. But we still more and more need to understand it, its Past, Nowadays and especially - the Future. Virtualics as metatheory of informational World and virtual modelling methodology opens opportunities to construct Human's quality leap in World's development spiral.

From qualitative development point of view the Anthropogony is stated and applied in this research as the science on human origin and development laws and its realisation mechanisms. The HSS spiral is perfect template for further investigation of Human development features and forecasts various scenarios of the Future. Fifth decade going on introspective investigation and creation of quantitative virtual modelling methodology enabled to recognise the Speech as form, the Free creative activity as content of Homo sapiens sapiens. Visual virtual communication replaces speech and become the form of next – 5th Life's quality – Homo Virtualis, which is synthesising trough pull of spiritual bodies of humans into united smart loving brain around 2050 year. Discovered and modelled human's self-regulation cycle enables understand his development mechanisms, what becomes as tool for Artificial intelligence applying into technological and social systems.

KEY WORDS: anthropogeny; virtualics; Human quality leap; Homo Virtualis; Life quality leap; Artificial Intelligence.

Introduction

The main problem. Not seeing to great achievements of humanity on investigating and discovering of the Universe, a Human still the least understood part of the world. But we still more and more need to understand it, his Past, Nowadays and especially - the Future.

Occurred form previous forms of the life Human firstly started to understand surrounding World through deepening into outside to him structure and features of micro and macro physical reality. At micro direction genial human's genome enabled to deepening into mater and find here cells, atoms, elementary particles, quarks, etc. Moreover, human learned how to decompose and synthesise material objects. At macro level he discovered planets, its system, galaxies, metagalaxies, universe, etc. Big-bang, black holes, gravitation waves and other features o Universe enabled to create courageous hypotheses about the past of physical World. However, the future of entire World still big secret for physically clever humanity.

Otherwise, only after understanding physical World human decided to look in to a mirror and ask – who I am myself? However Physical and Metaphysical, nor Dialectic methodology didn't answer to this question. Because human is eclectic multi-substantial subject. His organism accepted like physical body, which is also deeply investigated. However, his informational side – soul, spirit, personality still undiscovered parts of a Human. Scholastic science tries to understand such structures from physical and metaphysical points of view, but such methodological tools aren't appropriate for this

special deal. The unified Human science don't exist. Several scientific disciplines are investigating and studying a Human: biology, anatomy, physiology, psychology, anthropology, etc. using specific approaches and methodologies. Without united appropriate methodology they look like blinds, touching different parts of elephant's body, what don't give opportunity to see whole this big animal. Human can disconnect, to analyse different his parts, but holistically to collect it again isn't able. It's evident need some holistic methodology able to connect eclectic parts of a human.

We still not sure on origin of human and especially – what is the most important to us – on his future, which will be next quality of Human in parade of life's quality leaps: microorganism, plant, animal, human, ...? We don't satisfy and aren't free traveling in history don't knowing our future. Face to global nowadays challenges related to global warming, climate change, wars, international terrorism, epidemics, poverty, etc. seeking to joint all human civilisation towards save ourselves we need clear and true picture of World development from a Past and until a Future.

Virtualics as metatheory of informational World and virtual modelling methodology opens opportunities to construct Human's quality leap in World's development spiral (S. Paulauskas, 1999). Quantitative Anthropogeny as science on origin and development of a Human occurred many years ago. The term *anthropogeny* was used in the 1839 edition of Hooper's *Medical Dictionary*^[1] and was defined as "the study of the generation of man". The term was popularized by Ernst Heinrich Haeckel (1834–1919), a German naturalist and zoologist. However, uncertainty of historic empirical data keeps this science in permanent

change. Quantitative approach always leads deepening into details, e.g. genome, where number of white places not shortening but increasing. Quantitative approach doesn't let's "to see a forest behind trees". Because quantitative human development laws and regularities still uncertain and they can't be used for extrapolation and forecast of a Future.

Virtualics as metatheory of informational World and qualitative virtual modelling methodology opens opportunities to construct Human's quality leap in World's development spiral (S. Paulauskas, 1999). This work is operating just fifth decade – from 1976. Firstly introspection, as psychological method of own operation, investigation was used by author. This enabled to discover Human's self-regulation mechanism in 1979. After creation by author of Dialectical modelling methodology in 1985 and started to construct formalised World development spiral, Humans development quality leap was closest and best-known part of overall spiral.

From qualitative development point of view the Anthropogony (*anthropos* – human; *genie* – origin, development; Greek) is the science on human origin and development laws and its realisation mechanisms. Multilateral modelling of human's quality leap enabled to define his form, content, contradiction and construct his part of a Life development spiral (Stasys Paulauskas, 1999) The HSS spiral is perfect template

for further investigation of Human development features and forecasts various scenarios.

Main subject of this article is Human quality leap location on Life's development spiral.

Main aim of the article is to present virtual model of Human's quality development leap and its self-regulation mechanism.

Main tasks are:

1. To define the form, content and contradiction of Homos sapiens sapiens.
2. To define the form, content and contradiction of Homo Virtualis
3. To present human's development self-regulation mechanism.

From Homo sapiens to Homo sapiens sapiens

Human historic place covers two last quality stages of Life quality leap, which consist of development stages of: Microorganism, Plant, Animal, Homo sapiens sapiens, Homo Virtualis. The form of nowadays humans is Homo sapiens sapiens (HSS) and it means a homo, who thinks that he thinks. Neighbourhood of our ancestors – Homo Neanderthals is named as Homo sapiens (HS), because he thought, but couldn't understand, that he is thinking, same as each individuum from previous forms of life.

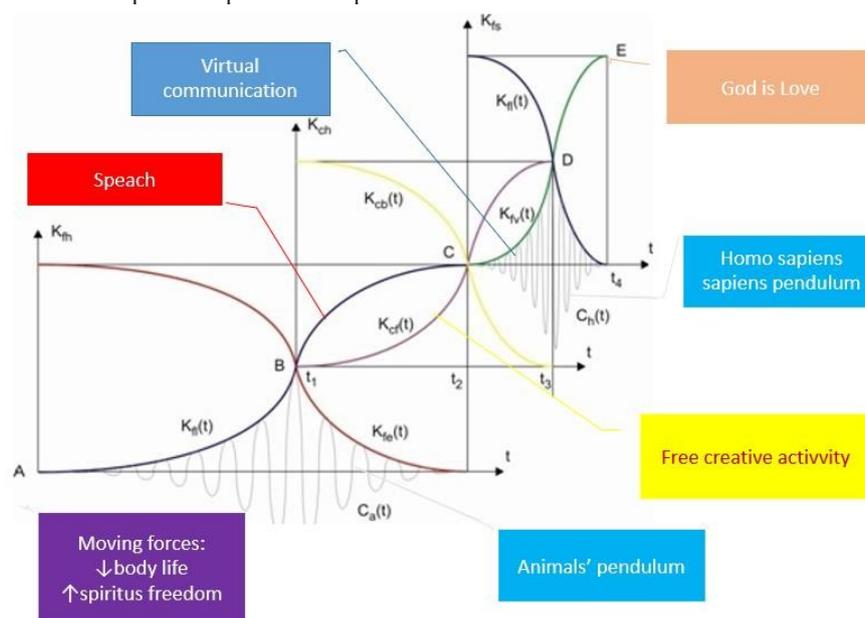


Fig. 1. Human quality leap (Stasys Paulauskas, 1999)

The core ability for „thinking that thinking” was developed during millions of years accordingly to Speech quality leap $K_n(t)$ (Figure 1). Starting from point A animals were developed on ability to generate and send voice, visual and other signs of mental images of a reality in its brains, which enabled target opposite sex receivers to hear a signal on place of signal sender. During history from lower to higher modernised signals animals improved efficiency of such signalisation. The form and content of such important messages becomes more complex and attractive to communicating sides. At HSS stage we understand this

like songs and music, which makes to as special impact. However, such musical letters enabled HSS to understand a sense of a telegram and occurring all sense mental images and promising feelings. Brains of chimpanzee can understand more as 600 hundred words, used by American dumbs, but absent of speech organs keeps this clever animal at before HS stage. We could believe, that Homo Neanderthals was able to use separate voice signs as words.

In historic point B in result of accumulated mutations in body of common for all HSS Grand Mather she started to talk connecting series of words –

occurred the Speech. Speech is communication mean by sending and accepting verbally encoded with words

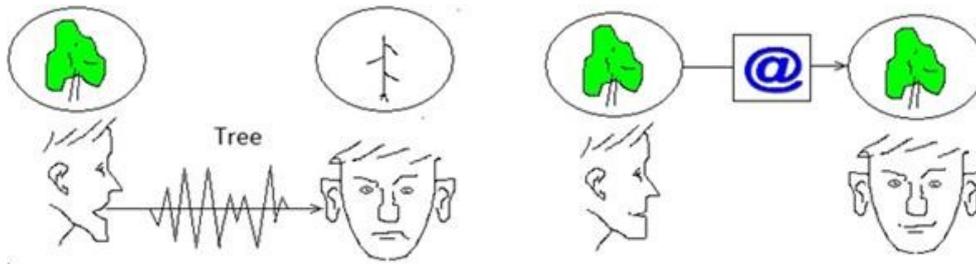


Fig. 2. Sense and transition of human communication (Stasys Paulauskas, 1999)

The speech continues passively - decelerating developing in HSS stage between points B and C. Here we expect saturation of speech quality – new languages don't occurs, some of them disappears. We can do conclusion, that in historic point C speech is finishing own role in HSS development.

The speech is the form of HSS, which discovered great opportunities to occur new content of animal's exclusive interaction with surrounding – Free creative activity – $K_{cf}(t)$, which replace old one – Obligatory work quality – $K_{co}(t)$. Obligatory work of HSS we understand as activity necessary for cover actualised demands, especially for physical body maintaining. It is specific content of an animal. Free creative activity is defined by necessity to cover higher demands, related to spiritual needs of HSS. Progressive content of HSS is increasing Free creative activity, what means reducing of manual work.

From Homo sapiens sapiens to Homo virtualis

Historic point C marks boring of new kind of communication by virtual images, which replace speech due its weak points – uncertainty and inefficiency, because for transferring mental images long time is needed. Anthropogony discovers opportunity to answer question on reason of computers and internet entering in HSS life. Yes, the mission of such informational converters is to replace speech by direct transferring of mental images between communicating sides. Speech is no needed more, when mental images flights at light speed in internet.

Trough contradiction between spiritual HSS seek to be free and from insertion of physical body total replacing of speech by virtual images takes time between historic points C and D.

Time point D marks occurring of the last – 5th quality of the Life – Homo virtualis (HV). Physical body disappears. All spiritual – informational bodies of humans connect in a mega brain, in which single human's brain will ply role of a neuron of Homo virtualis. It's significant, because in point D we see convergence of scientific and religion approaches to future of HSS. HV starts his historic path as very smart, free and loving live spiritual organism. The time distance between points C and D depends of HSS abilities to create technical solutions for to connect HSS brains directly to internet. We see how personal

and sentences mental images (Figure 2).

computer is nearing close and closer to HSS visual nerve trough virtual oculars and implants. Internet increases speed of transferring of bigger and bigger amounts of information necessary for transferring of mental images. Internet goes to satellite space and is nearing to vacuum energy sources. Considering active – exponential growth of virtual communication, we can provide, that all HSS will be connected to internet all 24 hours per day until 2050 year.

Human development mechanism

During introspective investigation of scope of human activities, the operating human development mechanism was discovered. Seem, it is applied larger and is applicable for all animals, plants and microorganisms. But understanding of such mechanism could give key for creation of an Artificial Intelligence tools to apply its in robotic, smart and virtual systems.

Alive organism is designed to act answering to some stimulus – demands, incorporated in genome. HSS demand structure is significantly developed comparing to animals thanks to spiritual body development. Start point of each HSS action is actualisation in an organ (stomach) and recognising by brain of a demand at time point t_0 . Firstly, its' visiting to experience storage field in brain, where all used and expected action programmes are located and marked by efficiency - pleasure signs. Efficient programmes are located closer for repeating use. Normally HSS considers few alternative action programmes and goes with them to Action programming stage, where he is trying to spin each of such programmes in brain simulation. Results of simulation enables to range priorities and modify of such programmes, considering concrete conditions of the action.

At time moment t_1 they will decide, which alternative action programme must be implemented. The choice is implementing on the base of economic criteria, giving priority to this programme, which enable to cover actualised demand by lowest expenditure of own time and energy. Economy of HSS' time and energy for cover actualised demands is core principle in personal life and in society too as Economy, Economics paradigm.

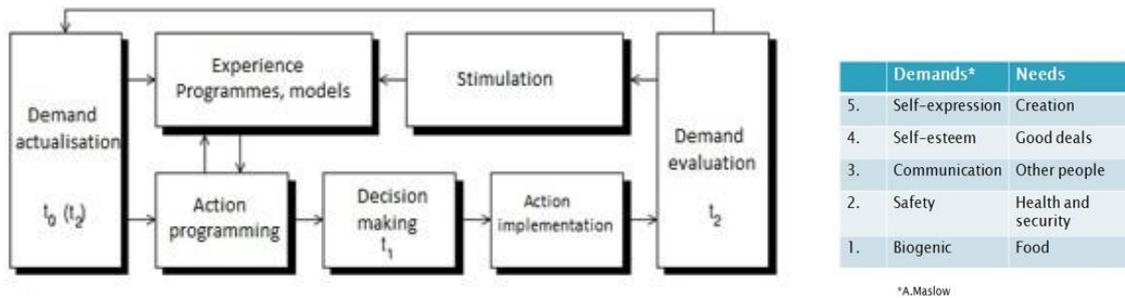


Fig. 3. Human self-regulation mechanism (Stasys Paulauskas, 1999) and A. Maslow‘ human demand hierarchy

After implementing of chosen programme in time point t_2 goes assessment of covering of the demand. If unsatisfactory state disappears, positive pleasure senses are producing in a Simulation zone of brain, used efficient programme is indexing by pleasure senses and colours and it is placing in close for repeatable use zone, higher demands occurs. And opposite – if unsatisfactory state not disappears, the demands still not covered and unsatisfaction increases. At this case brain activates negative feelings and used programme is indexing as not efficient and placing in far of repeatable use zone. Not covered demand need to return to the beginning of this cycle, to collect new set of alternative programme and repeat passed steps. So, such clever mechanism assures necessity to develop –

rate and select more and more efficient action programmes. It means learning from own practice. Education is special activity, dedicated to fill in programme store with experience of other people, groups, generations, etc.

As more times HSS turns such self-development loop, as higher abilities act efficiently and with pleasure. However, humans are also inventive subjects. Seeking to avoid difficult learning work they invented how pleasure could be directly stimulated by drugs, alcohol, smokes and another fictive stimulus. The time during which human is under action of a drug is free from operating development ring and means degradation. Because all surrounding people still developing.

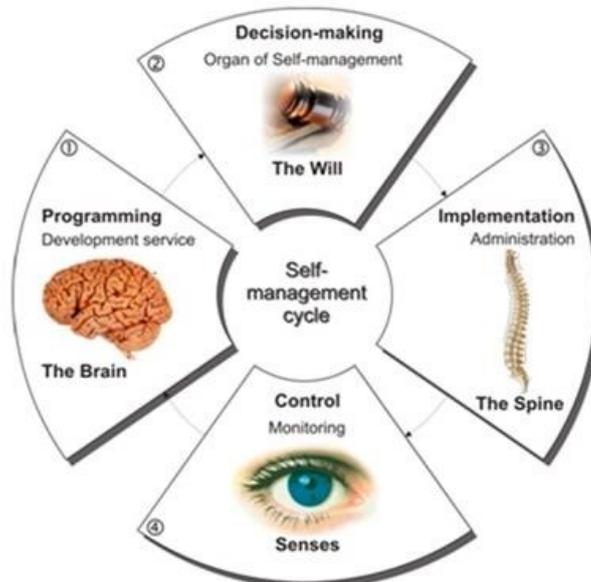


Fig. 4. Human Self-Management cycle (Stasys Paulauskas, 1999)

Discovered HSS development mechanism enabled to describe the sense of Artificial intelligence, which is very important now seeking to create smart and virtual robotic system. Original Intelligence means Human’s intelligence especially connected to head brain mental activities, e.g. recognition of faces, words, sentences, etc. Discovered HSS development mechanism shows, that his self-regulation cycles aren’t limited on head brain operation only, but includes also Will as decision-making function, Spine as implementation of chosen action program functions

and Senses as function of Control of efficiency operation of overall loop of HSS Self-regulation.

We largely applied HSS Self-Management cycle in different social organisations, where this loop has sense of Democracy – the bests practically operating division and connection of different functions of an social organisation. The original democracy is perfect tool for assess democracy in every business and social organisation and avoid fake interpretation of such important institutional order, what nowadays become very important challenge. Introduction of original democracy in social organisations is right way to take

out features of autocracy and open opportunities to rapid development of societies through assuring obligatory introduction of innovations, as it is in human organism. Original democracy is very efficient tool for accelerate Humanity development and take out different problems of stagnation, as partocracy, power of oligarchy, wars, international terrorism, climate change, etc.

Conclusions

Virtual modelling of Human qualitative development leap gives very short, concentrated, digitalised understanding of global path in history. It discovers main logics, directions and conditionality of human development, what is very helpful in self-improvement and clear planning of own activities not spending time on not perspective activities.

Qualitative development approach “gives a second breath” to science of Anthropogeny on the ground of Human development spiral, as template for deeper and detail construction of whole video from Pat to Future Homo Virtualis.

The Form of Homo sapiens sapiens is the Speech as verbally encoded transferring of mental images between humans. The Content of HSS is Free creative activity as process during which Human is freeing from Obligatory work through replacing this unlovely activity to shoulders of animals, employees and automated technical systems. It has sense of freeing from manual work as progressive trend.

The next – 5th quality of the Life – Homo Virtualis as whole spiritual – informational bodies of humans connected in a mega brain will start own path in the spiritual Universe.

It’s significant, that Homo Virtualis proofs the convergence of scientific and religion approaches to future of HSS.

Discovered human development mechanism becomes the ground for creation artificial intelligence tools for large application in technical, technological and social systems.

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THE BEST TRAITS OF ENTREPRENEURS: A RESEARCH ON THE PARTICIPANTS OF ENTREPRENEURSHIP TRAINING PROGRAMS

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Abstract

The aim of this study is to put forth the framework of the estimated traits of entrepreneurs. As, success requires special traits in any job, or in any professional area, entrepreneurship requires many special traits. This study depends on a literature review, and a research which was conducted on the participants of official entrepreneurship training programs in Turkey, about the estimated traits of entrepreneurs. The data analysis has shown that, self-confidence, innovativeness, honesty, risk taking, ability for marketing, sense of responsibility, leadership, creativity, determination, utilizing the opportunities are the top traits that the participants linked with the entrepreneurs. On the other hand, independent decision making, change focus, emotional intelligence, proactivity, and flexibility against uncertainty are the least traits that were associated by the participants with entrepreneurship. Also, it was found that gender, age, and the number of children in the family are statistically significantly associated with the preferences of respondents about the best traits of entrepreneurs.

KEY WORDS: Entrepreneurship traits, Entrepreneurship training programs, Turkey, Culture.

Introduction

As, success requires special traits in any job, or in any professional area, entrepreneurship requires many special traits. These traits can be the self-confidence, innovativeness, honesty, risk taking, ability for marketing, sense of responsibility, leadership, creativity, determination, utilizing the opportunities, communication skill, managerial skill, knowledge, social being, consistency and to be principled, being ambitious, competitiveness, self-check, achievement need, independent decision making, change focus, emotional intelligence, proactivity, and flexibility against uncertainty. Again, more and more traits can be added to these elements.

In the related literature, there are many studies which examined the traits of entrepreneurs. These studies are made in different countries, in different cultures. Although the heterogeneity of literature is stressed (Kerr, Kerr, and Xu 2017), very similar, even same traits are identified for entrepreneurs. This result shows how common it is as a topic for different countries, for different societies, or for different cultures. In addition, it is an indication of the integration of economies, and cultures. On the other hand, many times, researchers test the same dimensions or variables in different researches. The common literature of entrepreneurship also unifies the bases for investigations.

The entrepreneurs of different sectors can have different characteristics (Abdulwahab and Al-Damen 2015; Pınar 2015). The culture of society, or the culture of each profession can have an impact on the traits of entrepreneurs (Aytaç and İlhan 2020; Çetinkaya Bozkurt, Kalkan, Koyuncu, Alparslan 2012; Pınar 2015; Salamzadeh, Farjadian, Amirabadi, and Modarresi 2014); even religion can change the perspectives (Nair and Pandey 2006). Moreover, entrepreneurship education can

change the views of potential entrepreneurs (Çetinkaya Bozkurt, and Alparslan 2013; Yüceol 2018).

The country practices of entrepreneurship can be different. Accordingly, national characteristics might have impacts on entrepreneurial traits, and entrepreneurial behaviour (Mongia 2013). The differences of entrepreneurial traits can also be in relation with gender (Güney 2006; Yelkialan 2006), age, and personality (Kozubikova, Dvorsky, Cepel, and Balcerzak 2017; Nair and Pandey 2006). In addition, technical education/training, and work experience can support entrepreneurial behaviour (Nair and Pandey 2006).

This study was designed to put forward the views of official entrepreneurship training programs' participants on the topic of 'the traits of entrepreneurs'. The related field research was made through asking the participant the following question: "Which of the five of those 24 traits of entrepreneurs are more important than others for you?" A survey form was used to obtain the data.

This study includes a literature review, and the results of a field research about the estimated traits of entrepreneurs. First, the literature is reviewed, then, the results of the field research is given. This study ends with a conclusion.

Literature Review: The Traits of Entrepreneurs

The entrepreneurship is one of the main factors that determines the development level, or the wealth of nations. Accordingly, when the experiences or the development history of nations analysed, it can be seen that, entrepreneurship is the key activity which dominates the process. To put it more simply, profit focus, innovativeness, risk taking, and opportunity seeking support societies to accomplish their visions.

Entrepreneurship can be seen as a function of both personality characteristics and situational circumstances or social conditions (Lachman, 1980).

The entrepreneurial tendency as a function involving three factors closely related to each other. These factors include; (a) the training of entrepreneurship given to the individual, individual's level of accumulated knowledge/background; (b) the beliefs regarding the opportunities and capability to take new risks; and (c) the self-confidence of the individual to recognize and assess the opportunities (Parnell, Crandall, Menefee 1995; Tiftik and Zincirkıran 2014).

Karl Marx defines an entrepreneur as a capitalist, while Schumpeter stresses that, an entrepreneur is a creative transformer (Marx 1867; Tiryaki 2012). So, according to Schumpeter, the human history is an outcome of this creative transformation, or the innovativeness.

Entrepreneurship has many functions: it increases the national income, and so the total demand level that result in a growth in the economy. Again, it stabilizes the economy. The entrepreneurship triggers new start-ups in the same sector, or in related sectors. Moreover, it increases the production level, and differentiates the products. It creates new market segments (Uygun 2016). Finally, entrepreneurship increases the life standards, and the wealth of nations.

There are many approaches to entrepreneurship: psychological, environmental, economic, sociological, personality traits, cognitive, entrepreneurial view, and human capital, firm focused approach. These approaches also explain the origins of characteristics. Accordingly, need for achievement, internal locus of control, risk-taking, desire for independence, creativity and innovativeness can be explained in the frame of psychological view. The sociological approach defends that, an entrepreneur should be opportunity oriented, adventurous, ambitious, innovative, pioneer, leader, a top level image creator, and a wider financial strategy implementer (Beaver, 2002).

The individualistic approach explains entrepreneurship with personality traits. These traits should adapt the situation. It can be asserted that, when an entrepreneur is successful, then the basic traits of her or him respond the conditions.

The trait approach links the personality traits with entrepreneurial attitudes, or entrepreneurship. Accordingly, the entrepreneurs have special traits which make them entrepreneurs, and differentiate them from others (Gartner, 1988). This approach points out that, the most important characteristics of an entrepreneur are as the following: locus of control, need of achievement, risk taking tendency, the need of respect, determination, self-confidence, desire for independence, being goal focused, being hard working, problem solving, honesty, behaving with responsibility, initiating, human relations skill, rational thinking, and social responsibility behaviour.

The family, the environment, and education affect the formation of entrepreneurial characteristics (Lee 1999). Hence, the environmental approach focuses on environmental characteristics, especially the culture, economic structure, and state policies. Okhomina (2010) found that, a supportive business environment mediates the relationship between psychological traits and entrepreneurial orientation.

The firm approach associates the life cycle of firms with the personality traits of entrepreneurs. Accordingly, the entrepreneur should keep her or his traits as opportunity focused, creative, innovative, and profit aimed.

The cognitive approach focuses on the sources of traits' mental formation. This approach searches, how entrepreneurs benefit from mental models in their business experiences. So, the approach investigates how the representation of comprehension, mental schema, tendencies, cognitive mechanisms, intention, and external environment affect behaviour. This approach defends that, the comprehension of entrepreneurs guide their behaviour, and activities. In addition, the cognitive processes of entrepreneurs differentiate from the cognitive processes of non-entrepreneurs (Baron 1998; Baron 2004; Mitchell et al. 2002).

The entrepreneurial intention approach investigates the sources of entrepreneurial intention. Accordingly, the individual and contextual conditions interact with the rational and intuitional thinking system. Thus, the organization emerges. The contextual conditions includes the social, economic, and political conditions of human; while the individual conditions consist of the experiences, personality, and skills of individual. Initiating a new entrepreneur is a result of rational, analytical, intuitional, result focused and casual thinking process. Entrepreneurial intention transforms into entrepreneurial behaviour. In addition, entrepreneurial intention originates from the attitudes (Whesthead et al. 2003; Uygun 2016).

The human capital approach examines the importance of knowledge, skills, and abilities. This approach argues that, the individuals who have higher levels of knowledge, skills, and abilities will be successful in their business (Becker 1975). The value and rareness of knowledge, skills and abilities might determine the performance levels of entrepreneurs.

An entrepreneur takes the financial, tangible, and psychological risks of establishing a business, and sustains it (Hatten 1997). In the related process, the traits (or the characteristics) of entrepreneurs play a key role to overcome the barriers, and achieve the goals. Megginson, Byrd, and Megginson (2000) stated that, entrepreneurship is a result of the desire for independence, to initiate and complete a process, desire for success, personal causes or causes related with family, the expectation of fast result or fast response, dedication to entrepreneurship, and to start entrepreneurship with a plan.

In the related literature, there are many studies about the traits of entrepreneurs. In these studies, the topic is discussed focusing on different dimensions.

When the literature is reviewed, the most cited entrepreneurial traits merge as the following: creativity and innovativeness (Çetinkaya Bozkurt and Alparslan 2013; Herron 1992; Geisler 1993; Drucker 1998; Daft 2005; Hatten 1997; Hisrich et al. 2005; Hitt et al. 2005; Kerr, Kerr, and Xu 2017; Lee, 1999); risk taking (Çetinkaya Bozkurt and Alparslan 2013; Geisler 1993; Johnson and Hayes 1996; Drucker 1998; Hatten 1997; Hisrich et al. 2005; Hitt et al. 2005; Zhao et al. 2005; Hewison and Badger, 2006; Kerr, Kerr, and Xu 2017; Lee, 1999; Salamzadeh, Farjadian, Amirabadi, and

Modarresi 2014), change focused (Çetinkaya Bozkurt and Alparslan 2013; Luchsinger and Bagby 1987; Herron 1992; Hisrich et al. 2005; Hitt 2005; Kerr, Kerr, and Xu 2017), opportunity focused (Corbett and Hmieleski 2005; Çetinkaya Bozkurt and Alparslan 2013; Hitt et al. 2005), creative (Çetinkaya Bozkurt and Alparslan 2013; Daft, 2005; Hitt et al. 2005; Hewison and Badger, 2006), developed communication skill (Çetinkaya Bozkurt and Alparslan 2013; Hitt et al. 2005; Kerr, Kerr, and Xu 2017), proactivity (Çetinkaya Bozkurt and Alparslan 2013; Hisrich 2005), need for achievement (Çetinkaya Bozkurt and Alparslan 2013; Daft 2005; Kerr, Kerr, and Xu 2017; Salamzadeh, Farjadian, Amirabadi, and Modarresi 2014), emotional intelligence (Çetinkaya Bozkurt and Alparslan 2013; Zakarevicius and Zuperka 2010; Chuluunbaatar and Luh 2010), insist on decisions (Çetinkaya Bozkurt and Alparslan, 2013; Hitt et al. 2005), internal locus of control (Salamzadeh, Farjadian, Amirabadi, and Modarresi 2014).

Specific attitudes lead to successful startups (Mongia, 2013). A general model of entrepreneurship can include the personality, human capital, active performance, and environment dimensions (Kerr, Kerr, and Xu 2017). Personality traits: need for achievement, locus of control, self-efficacy, innovativeness, risk attitude, openness, conscientiousness, extraversion, agreeableness, and neuroticism. Entrepreneurial human capital requires education and training, experience, mental ability, and knowledge. Entrepreneurship also depends on active performance which consists: active goals and visions, active task strategy, active action planning, effectuation, innovation, active social strategy for networking, active feedback seeking, active approach to mistakes, and active approach to learning. The active performance is affected by personality, human capital and environment. The entrepreneurship environment consists of national culture, life cycle, hostility, and industry.

The culture can be an important factor in the formation of entrepreneurial characteristics. Hofstede (1980) tried to identify dimensions of culture by observing the employees of a multinational company IBM that included employees from 40 different countries. He identified and explained the cultural patterns and their differences across different countries. His study involved 5 dimensions such as individualism & collectivism, masculine and feminine, uncertainty avoidance, power distance and time perspective (long-term or short term orientation).

In individualistic societies, individuals are expected to have loose social ties. They give priority to their individual demands and interests. In other words, individuals in these countries, want to realize their own wishes and desires. They have independent views, and mindset (Triandis and Gelfland 1998). On the contrary, in collectivist societies, individuals have tight social ties and commitments. They give priority to their in-group consisting of their relatives or closest friends. Instead of realizing his own demands and interests, a collectivist individual tries to make his in-group's demands, interest and aims happen. His prior consideration would be his in-group's interests (Mills and Clark 1982).

The power distance is about interpersonal power or inequality among individuals. The uncertainty avoidance

indicates an individual's stance towards the unknown future. Finally, the masculinity dimension measures the division of roles between women and men in a society (Hofstede 1980).

Hofstede (1980) stated that, Turkish culture has the characteristics of high levels of collectivism, power distance, and uncertainty avoidance. On the other hand, the Turkish culture includes moderate femininity.

Çetinkaya Bozkurt (2011) associated entrepreneurial characteristics and culture. The author stressed that, the occurrence of entrepreneurship is related with family, education, culture, personal values, age, gender, work experience, role models, and environment. Similarly, Nair and Pandey (2006) found that, the economic status of the family, age, technical education/training and work experience have links with entrepreneurship. On the other hand, Megginson, Byrd, and Megginson (2000) stress that, an individual can be an entrepreneur in any age.

Guney (2006), and Yelkialan (2006), examined the dimension of gender in entrepreneurship. These scholars focused on the topic of "women entrepreneurship", and stressed that gender differences affect the entrepreneurial practice. Abdulwahab and Al-Damen (2015) found that, there is an impact of entrepreneurs' characteristics on the small business success. Nair and Pandey (2006) identified that, economic status of the family, age, technical education/training, and work experience affect the traits of entrepreneurs. The scholars also achieved the result that, although they are more innovative compared with the rest of people, entrepreneurs do not have faith in the internal locus of control.

Based on the literature given above the following hypotheses are developed:

H1: There is a statistically significant relationship between the age of the respondents and their preference of best entrepreneurial traits.

H2: There is a statistically significant association between the professions of the respondents and their preference of best entrepreneurial traits.

H3: The work experiences of respondents are statistically significantly associated with their best entrepreneurial trait preferences.

H4: There is a statistically significant relationship between the number of children that the respondents have and the preference of respondents about the best traits of entrepreneurs.

H5: The thoughts on the best traits of entrepreneurs and the gender are statistically significantly associated.

Kozubikova, Dvorsky, Cepel, and Balcerzak (2017) demonstrated that, entrepreneurs' management of financial risks in their firms is not associated with their age, gender, education, or personality traits. In contrast, they showed that, entrepreneurs' personality traits as "decisiveness", and "optimism" has relationships with their age, and gender. In addition, entrepreneurs' view of the minimization of risk taking through building-up

reserves is linked with the qualities as “risk taking”, and “decisiveness”.

Salamzadeh, Farjadian, Amirabadi, and Modarresi (2014) searched on a random sample of undergraduate students of three universities in Iran, majoring in six fields of study. They surveyed to measure and compare their entrepreneurial characteristics which were profiled in the bases of traits: open mindedness, need for achievement, pragmatism, tolerance of ambiguity, visionary, challenge taking, risk taking, and internal locus of control. The scholars have found that, the traits and the fields of study are correlated.

Çetinkaya Bozkurt (2011), expressed the basic traits for entrepreneurs: the need for success, internal locus of control, risk taking orientation, tolerance to ambiguity, self-confidence, innovativeness, and emotional intelligence.

Aytaç and İlhan (X), linked entrepreneurship with the culture of the society. Yüceol (2018), identified relationships between personality traits and entrepreneurial orientation level.

Çetinkaya Bozkurt, Kalkan, Koyuncu, and Alparşlan (2012) stressed that, entrepreneurship is a social and cultural event. These scholars identified that, these traits are mostly mentioned by the participants for entrepreneurs: Self-confidence, honesty, commercial ethics, risk taking, innovativeness, creativity, sociability, independent decision making, stress/uncertainty tolerance, need for autonomy, being consistent and principled.

Çetinkaya Bozkurt and Alparşlan (2013) made a research on a sample of students about entrepreneurship traits. The major traits identified in this research are as the following: self-confidence, honesty, risk taking, and innovativeness.

Pınar (2015) found that, tourism industry entrepreneurs differ from other industries' entrepreneurs. Accordingly, tourism entrepreneurs were likely to be highly motivated with life-style, quality of life (QOL) issues, locational preferences, and other non-economic motives. This research's data analysis indicates that, the sector can change the traits of entrepreneurs. In other words, entrepreneurial traits can vary from sector to sector.

The entrepreneurial activity, and traits can be affected by environment, by the national characteristics, especially culture. However, Mongia (2013) achieved the result that, there is no statistically significant difference between the persistency and success levels of Norwegian entrepreneurs, living and operating in Norway, and living and operating in the United States of America (USA). Also, the scholar also demonstrated that, low risk of tolerance does not affect the success levels of Norwegian entrepreneurs living and operating in Norway, or Norwegian entrepreneurs living and operating in USA. Mongia (2013) found that, Norwegian entrepreneurs in Norway have the same abilities to succeed as the entrepreneurs in the USA.

Kerr, Kerr and Xu (2017), pinpointed the heterogeneous nature of entrepreneurship in terms of the different views about its topics. The scholars examined the literature for the traits of Big-5 Model, self-efficacy

and innovativeness, locus of control, and the need for achievement. The Big-5 Model includes (John, Naumann, Soto 2008): openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism.

The Methodology of the Field Research

The field research was conducted on the participants of the entrepreneurship training programs in Giresun province of Turkey, in 2016 and 2017. The training programs which have a special name of “Basic Entrepreneurship Education” are realized under the coordination and control of Turkey's Small and Medium Sized Enterprises Development Organization (referred to as KOSGEB in Turkish). Each group consists of maximum 25 trainees.

The research was conducted via survey form, which included demographical and other questions. The survey form was developed by the researcher through the review of basic or most cited entrepreneurial characteristics in the literature. The participants were asked to choose five entrepreneurial traits which are the most important for them in the related processes.

The survey form was conducted on 480 participants. However, the 446 of them were found to be useful. Therefore, the sample of the research was 446. The universe of the research was the participants of official “Basic Entrepreneurship Training Programs”, in Giresun province, Turkey, in the years of 2016, and 2017.

In the survey form, the participants were asked to choose five of the 23 possible traits of entrepreneurs.

The research was limited with the participants of “Basic Entrepreneurship Education” programs, which is a training program, in fact, in Giresun province, in the years of 2016, and 2017.

The research was made on the participants of entrepreneurship training programs. In other words, the field research was realized on the candidate entrepreneurs. Therefore, the characteristics of the sample also reflect the characteristics or the traits of the potential entrepreneurs. It can be estimated that, the findings about the participants' traits and views, also can be the reliable indicators of the traits of the active entrepreneurs.

The findings of the research also reflect the cultural characteristics of a society, which was associated by Hofstede (1980) with high levels of collectivism, power distance, uncertainty avoidance; and moderate femininity.

The following hypotheses were tested depending on the data analysis:

H1: There is a statistically significant relationship between the age of the respondents and their preference of best entrepreneurial traits.

H2: There is a statistically significant association between the professions of the respondents and their preference of best entrepreneurial traits.

H3: The work experiences of respondents are statistically significantly associated with their best entrepreneurial trait preferences.

H4: There is a statistically significant relationship between the number of children that the respondents have and the preference of respondents about the best traits of entrepreneurs.

H5: The thoughts on the best traits of entrepreneurs and the gender are statistically significantly associated.

H6: The participants' thoughts on the best traits of entrepreneurs, and the past business ownership of the participants are statistically significantly associated.

Findings

The findings of the field research are the followings.

Table 1. The Age of the Respondents

The Age Group	Frequency	Percentage
18-24	75	16.68
25-30	125	28
31-35	96	21.6
36-40	73	16.3
41-45	33	7.4
46-50	18	4.1
51-55	18	4.1
56-60	6	1.4
61-65	2	0.4
Total	446	100

Table 1 demonstrates the age groups of the respondents. According to the table, 18-24 age group includes 75 individuals (16.68%), 25-30 age group includes 125 individuals (28%), 31-35 age group consists of 96 individuals (21.6%), 36-40 age group includes 73 individuals (16.3), 41-45 age group includes 33 individuals (7.4%), 46-50 age group includes 18 individuals (4.1%), 51-55 age group includes 18 individuals (4.1%), 56-60 age group includes 6 individuals (1.4%), 61-65 age group has 2 respondents (0.4%). The sample was 446.

Table 1 indicates that, the entrepreneurship training program mostly consists of the participants from the age group between 18-40 (82.58%). This shows that, in the frame of the sample, mostly the individuals under age 40 have the tendency to initiate an entrepreneurial activity. It is in accordance with the conventional career terms in labour market. Accordingly, it can be claimed that, being an entrepreneur is an important choice for the young and even middle-aged individuals, in Giresun province, in Turkey. This situation has many different reasons: the high unemployment rate among youngsters (over 20%), the weakness of another choice for employment, the

opportunities for entrepreneurship, the opportunities that entrepreneurship presents, the desire for wealth, comfort in life, the tendency for independency, the financial supports of the state, and the popularity of entrepreneurship.

Table 2. The Gender of the Participants

The Gender	Frequency	Percentage
Women	215	48.2
Men	231	51.8
Total	446	100

The number of women in the sample was 215 which have the rate of 48.2%. Accordingly, the number of men was 231 which have the rate of 51.8%. In Turkey, the rate of the women entrepreneurs is relatively low. It is below the 10% of the total entrepreneur number in the country. So, the women entrepreneurship is especially supported by the Turkish Government. The women entrepreneurs are financially supported by the government with an extra amount compared with the men entrepreneurs. The Turkish State aims to increase the rate of women in the total number. The women entrepreneurs can be seen in any area of business in Turkey, but especially, they operate in food or catering business. "The home-made meals" are too popular in the country. These "home-made meal" businesses are generally owned by the women whose main profession is "housewife".

The rate of candidate women entrepreneurs in the sample can be an indicator of future balance or proportion between women and men in the area. It can be claimed that, the young and educated Turkish women might strengthen her position in business as entrepreneurs in coming years and decades.

Table 3. The Education Levels of Participants.

Education Level	Frequency	Percentage
Primary School	54	12.1
Secondary School	50	11.2
High School	164	36.8
Bachelors' Degree	163	36.5
Masters' Degree	15	3.4
PhD	0	0
Total	446	100

Table 3 shows the education levels of the respondents. Accordingly, 54 of the respondents (12.1%) are primary school graduates, 50 of the respondents are secondary school graduates (11.2%), 164 of the respondents are high school respondents (%36.8), 163 of them have the bachelor's degree, and 15 of them have the masters' degree.

The data analyses indicate that, 39.9% of the respondents have the university degree. Again, 36.6 of them are the high school graduates. It is clear that, the majority of the respondents are educated. It can be maintained that, entrepreneurship is an important area for also educated people.

Table 4. The Existence of another Entrepreneur in the Family

	Frequency	Percentage
Yes	153	34.3
No	293	65.7
Total	446	100

The 34.3% of the participants (153) have another entrepreneur in the family. Thus, 65.7% of the respondents (293) do not have another entrepreneur in their family.

It is obvious that, the profession which the family members are familiar to, might have an impact on the preference of a job, or a career. So, 34.3% of the respondents have better opportunities to have information about entrepreneurship. Moreover, they can benefit from the experiences of the member who deals with entrepreneurship, in the family.

Table 5. The Family Members in Entrepreneurship

Family Member	Frequency	Percentage
Father	30	6.7
Mother	14	3.1
Brother/Sister	37	8.3
Others	74	16,6
Total	155	34.7

As it can be seen at Table 5, the frequency of the respondents that have an entrepreneur father is 30, which represents the 6.7% of the total. Again, 14 of the respondents' (3.1% of the sample) mother are entrepreneurs; 37 of the respondents' (8.3% of the sample) brothers or sisters are entrepreneurs; and 74 of the respondents (16.6% of the sample) have other relatives who are entrepreneurs. These numbers or rates worth attention for their possible similarity with the situation of real entrepreneurs.

The existence of an entrepreneur relative in the family can be a role model for other family members. On the whole, family members can learn from her or him; they can benefit from her or his experiences. So, to have an entrepreneur family member or a relative can trigger off the entrepreneurial behaviour.

Table 6. The Work Experience of Respondents

Work Experience	Frequency	Percentage
0	92	20.6
1-5	147	33
6-10	84	18.9

11-15	52	11
16-20	40	8.9
21-25	9	2
26-30	11	2.4
31-35	6	1.2
36-40	3	0.6
41+	2	0.4
Total	446	100

The work experience of respondents has the following distribution: no work experience, 92 (20.6%); 1-5 years, 147 (33%); 6-10 years, 84 (18.9%); 11-15 years, 52 (11%); 16-20 years, 40 (8.9%); 21-25 years, 9 (2%); 26-30 years, 11 (2.4%); 31-35 years, 6 (1.2%); 36-40 years, 3 (0.6%); and 41+ years, 2 (0.4%). These data are in accordance with the ages of the respondents. It is clear that, inexperienced, or short time work experienced (1-5 years) respondents form the majority. It can be claimed that, entrepreneurship presents hope especially for the jobless, inexperienced or short-time work experienced individuals. This result is also associated with the ages of the same groups.

Table 7. Past Business Ownership

Past Business Ownership	Frequency	Percentage
Yes	79	17.7
No	377	82.3
Total	446	100

Table 7 demonstrates the past ownership situation of respondents. Accordingly, 79 of the participants (17.7%) established a business before, and 377 of the participants (82.3%) did not establish a business before. To have a business ownership, or firm formation experience strengthens the entrepreneurs. Through the experience, they can avoid the same mistakes. Again, accumulated knowledge that originates from active experience supports creativity, and innovativeness. It is obvious that, the experiences of others can also be the source of knowledge, or information.

Table 9. Marital Status

Marital Status	Frequency	Percentage
Married	265	59.4
Single	181	40.6
Total	446	100

As it is shown at Table 9, the 265 of the respondents are married (59.4%), and 181 of them are single (40.6%). Marital status can be a factor in risk taking.

Table 10. Number of Children

Number of Children	Frequency	Percentage
0	198	44.4
1	91	20.4
2	91	20.4
3	50	11.2
4	12	2.7
5	1	0.2
7	1	0.2
9	1	0.2
13	1	0.2
Total	446	100

To have a child, or children can have psychological effects on entrepreneurship, especially in risk taking. As Table 10 indicates, 198 (44.4%) of the respondents do not have a child. 91 of the respondents (20.4%), have one child; again, 91 of them (20.4%) have two children. Moreover, 50 of the respondents (11.2%) have three children; 12 of the respondents (2.7%) have four children; 1 of the respondents (0.2%) has five children. Similarly, same number and ratio (1; 0.2) of respondents have seven, nine, and thirteen children, respectively.

Table 11. Age Related Correlation Analysis Results 1

	D1	D13	D14	D25	D17
D1	1	.104* .028	.073 .122	.154** .001	-.016 .742
D13	.104* .028	1	-.108* .022	.079 .994	.085 .072
D14	.073 .122	-	1	-.076 .110	- .153** .001
D25	.154** .001	.079 .094	-.076 .110	1	- .216** .000
D17	-.016 .742	.085 .072	- .153** .001	- .216** .000	1

(** Correlation is significant at the 0.01 level; * Correlation is significant at the 0.05 level.) (2-tailed). (D1: The ages of the respondents ; D13: self-confidence; D14: innovativeness; D25: honesty; D17: risk taking.).

Table 11 demonstrates the correlation results with the age of the respondents and their prior preference for entrepreneurial traits. Accordingly, there is only a low level correlation between the age and some of the traits: self-confidence (.104; .028); honesty (.154; .742). Thus, H1 is partially accepted.

Table 12. Profession-Rel. Correlation Analyses Results 2

	D6	D13	D14	D25	D17
D6	1	-.013 .789	.018 .698	-.052 .275	.074 .121

(** Correlation is significant at the 0.01 level; * Correlation is significant at the 0.05 level.) (2-tailed). (D6: The profession of the respondents; D13: self-confidence; D14: innovativeness; D25: honesty; D17: risk taking.).

Table 12 presents the profession related correlation analyses results. It can be seen from the table that, there are no links between the profession of the respondents and their preference for entrepreneurial traits. So, H2 is rejected.

Table 13. Experience-Rel. Correlation Analyses Res. 3

	D7	D13	D14	D25	D17
D7	1	.056 .241	.025 .599	.030 .533	.006 .895

(** Correlation is significant at the 0.01 level; * Correlation is significant at the 0.05 level.) (2-tailed). (D7: The work experience of respondents; D13: self-confidence; D14: innovativeness; D25: honesty; D17: risk taking.).

As it can be seen at table 13, the work experience of respondents is not associated with the best entrepreneurial trait preferences of respondents. Hence, H3 is rejected.

Table 14. Number of Children – Correlation Analyses

	D11	D13	D14	D25	D17
D11	1	.183** .000	.080 .093	.165** .000	- .059 .210

(** Correlation is significant at the 0.01 level; * Correlation is significant at the 0.05 level.) (2-tailed). (D11: The number of children; D13: self-confidence; D14: innovativeness; D25: honesty; D17: risk taking.).

Table 14 demonstrates the correlation between the number of children of the respondents and the preference of the about the best traits of entrepreneurs. Accordingly, there is a statistically significant relationship between the number of children of respondents, and their preferences of traits self-confidence (.183; .000), honesty (.165; .000). Therefore, H4 is partially accepted.

Table 15. The Mann-Whitney U Test Results on the Gender and Preferences of the Best Entrepreneurial Traits

Gender	N	Mean Rank	Sum of Ranks	Mann Whitney U	Sig.
Female	215	237.1	50975.5	21694.5	.001
Male	231	209.82	48259.5		

Table 15 shows the Mann-Whitney U Test results pertaining the relationship between the participants' thoughts on the best traits of entrepreneurs, and the gender. According to these test results, there is a statistically significant relationship between the thoughts on the best traits of entrepreneurs, and the gender within

the sample group (21694.5; sig. <0.05). Therefore, H5 is accepted.

Table 16. The Mann-Whitney U Test Results on the Past Business Ownership and Preferences of the Best Entrepreneurial Traits

Past Business Ownership	N	Mean Rank	Sum of Ranks	Mann Whitney U	Sig.
Yes	216	221.48	47396.5	24391.5	.667
No	230	223.45	51393.5		

Table 16 shows the Mann-Whitney U Test results pertaining the relationship between the participants' thoughts on the best traits of entrepreneurs, and the past business ownership of the participants. According to these test results, there is no statistically significant relationship between the thoughts on the best traits of entrepreneurs, and the business ownership within the sample group (21694.5; sig. >0.05). Therefore, H6 is not accepted.

Table 17. The Entrepreneurial Traits

		Name of the Trait	Frequency
1.	13	Self-Confidence	373
2.	14	Innovativeness	235
3.	25	Honesty	221
4.	17	Risk taking	166
5.	22	Ability for marketing	145
6.	19	Sense of responsibility	132
7.	20	Leadership	115
8.	27	Creativity	103
9.	35	Determination	102
10.	30	Utilize the opportunities	89
11.	24	Communication skill	85
12.	23	Managerial skill	84
13.	36	Knowledge	84
14.	26	Social being	54
15.	29	Consistency and to be principled	49
16.	34	Being ambitious	40
17.	21	Competitiveness	36
18.	16	Internal locus of control	31
19.	15	Achievement need	30
20.	28	Independent decision making	17
21.	31	Change focus	14
22.	33	Emotional intelligence	10
23.	32	Proactivity	6
24.	15	Flexibility against uncertainty	3

As it can be seen in Table 17, the frequency of the characteristics are as the following: self-confidence, 373; innovativeness, 235; honesty, 221; risk taking, 166; ability for marketing, 145; sense of responsibility, 132; leadership, 115; creativity, 103; determination, 102; utilizing the opportunities, 89; communication skill, 85; managerial skill, 84; knowledge, 84; social being, 54; consistency and to be principled, 49; being ambitious, 40;

competitiveness, 36; internal locus of control, 31; achievement need, 30; independent decision making, 17; change focus, 14; emotional intelligence, 10; proactivity, 6; and flexibility against uncertainty, 3.

The top five characteristics for entrepreneurs chosen by the participants are self-confidence, innovativeness, honesty, risk taking, and ability for marketing. These traits are the base for an entrepreneurial behaviour, and an entrepreneurial initiative. It is clear that, the participants of entrepreneurship training programs in Turkey, identify the best traits for entrepreneurs. These traits are generally accepted as "the keys" for a successful entrepreneurship.

Conclusions

This study has investigated the possible traits of entrepreneurs depending on a research which was conducted on the participants of official entrepreneurship training programs. Accordingly, this study has shown that, the basic traits that are assumed to be linked with the entrepreneurs are self-confidence, innovativeness, honesty, risk taking, and ability for marketing. This study also demonstrated that, the sense of responsibility, leadership, creativity, determination, and utilizing the opportunities are the next five key traits for entrepreneurs. On the other hand, "independent decision making", "change focus", emotional intelligence, proactivity, and "flexibility against uncertainty" are the least chosen five traits linked with entrepreneurship.

The data analysis has also shown that, there is an association between the age of the respondents, and their preferences about the best traits of entrepreneurs. Again, the number of children, and the preference of the best traits of entrepreneurs are correlated. However, no links were identified between the profession of the respondents and their preference of best entrepreneurial trends. Similarly, the work experience of participants, and the preferred entrepreneurial best traits are not associated, in the frame of the sample group. Moreover, it was identified that, the past business experiences do not have an impact on the preferences; as a result which is out of expectations.

The data analysis demonstrated the link between the gender, and the distribution of entrepreneurial best trait differences. The gender can be a key point in terms of different approaches for different dimensions, or variables. It is clear that, different experiences result in different approaches. In addition, the differences in physiology can also result in the different approaches to events.

These results are achieved in Turkish culture which was linked by Hofstede (1980) with high levels of collectivism, power distance, and uncertainty avoidance; and a moderate femininity. However, the similarities between the findings of this research and the literature can be related with the survey form which creates a framework. Again, the integration of cultures and economies result in common perspectives. So, the similarities of findings with the literature can be explained from this point of view.

The future studies should focus on the differences of entrepreneurial traits between the cultures.

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OPPORTUNITIES OF THE CRM CONCEPT IN CREATING PROCESS OF A VALUE-BASED TOURISM PRODUCT

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Abstract

The modern tourism is to combine with new trends in customer behaviour and new expectations. The consumer of tourism services has evolved from being a rational, thinking of the future to an emotional consumer with big needs, dreaming of a “good life”. There is a shift from lower-class consumption habits to higher-class consumption. The modern tourist is expecting a personalized offer of a tourism product. It is a big challenge for the providers of tourism services to offer a tourism product as a “commodity of experience”, which is acquired by those who transform their experiences into memories and build on them for further decisions. The problem of the scientific discussion in this article is concentrated on the theoretical opportunities to customize CRM tools in the value creating process of a tourism product offered by small tourism service providers. The aim of the article is to identify benefits and risks of a CRM concept in creating process of a value-based personalized tourism product offered by small tourism service companies.

The scientific literature describes CRM in various ways – as a business philosophy (building a customer-oriented culture and building long-term customer relationships), as a business strategy (functional plans and actions to build customer relationships) and as a technological tool (using information technology for data collection, analysis and customisation through customer relationship management). CRM is also described as a method that requires software and technology that automates the company's business processes related to sales, marketing and customer service. Increasing access to information systems and falling prices for computer programs improve customer relationships in today's travel industry. From a strategic perspective, CRM is an organisational process that enables a company to measure customer's margin and manage customer relationships, thereby improving the company's profitability. Using information technology solutions and building a customer information base simplifies the customer relationship management process.

CRM as a new described as a new management mechanism to improve corporate-customer relationships that can be applied as technical support in the marketing, service and other customer-related areas of the tourism business so that customers always feel supported by service personnel and business will keep abreast of changes in customer needs. This encourages tourism companies to make the most of its available resources for customer interaction and to achieve management of travel choices from tourist flows, marketing and technical support, and mutual evaluation management. Tourism companies should develop data collection technique, as this technique can help them develop marketing strategies and maximise the organisation's profits. Tourism companies should collect huge amounts of customer data that can be integrated into databases and are used to make marketing decisions about them. Tourism companies can monitor customer purchasing behaviour by using the submitted process to analyse the data collected. This helps tourism companies personalise marketing solutions and offers to match the preferences of different customers. Tourism companies can maintain regular customers, stop the transition of the most profitable customers to competitors, classify their preferences and influence the prices of short-term services, thereby optimising profitability.

In the tourism product development process, the aim is to strengthen user orientation, thus increasing the value of the tourist product for the consumer, the CRM application can be seen as a strategic use of customer data by integrating them into the loyalty scheme, using information technology. Improvement programmes of organisations are constantly evolving, taking into account the new possibilities of information technology in business processes, which can also be attributed to CRM. Proper use of information technology can help maintain customers through more efficient customer relationship management, based on knowledge and strong interaction.

KEY WORDS: tourism; CRM concept; value-based tourism product; creating of tourism product; opportunities of the CRM concept.

Introduction

Relevance of the topic. The modern tourism is to combine with new trends in customer behaviour and new expectations. The consumer of tourism services has evolved from being a rational, thinking of the future to an emotional consumer with big needs, dreaming of a “good life”. There is a shift from lower-class consumption habits to higher-class consumption. When buying everyday consumer goods, the consumer tends to save. On the other hand, consumers want to emphasise their social status, which is why consumption becomes demonstrative. Thanks to e-commerce, the consumption space is expanding from the local market to the global. Consumption increases when there is an opportunity to

purchase goods or services in instalments. Surrounding people make a significant influence on consumption. Exchanges between countries, cultures and individuals around the world intensify and drive the development of global culture. In terms of the behaviour of tourism consumers, it has been found that the “consumption for consumption” has been replaced by the philosophy of “consumption for experiencing”. The new tourist is described as educated, experienced and with much higher expectations than ever before. With the help of technology, he knows a lot and is able to adapt to different cultural environments. As a result, the number of self-planned trips is growing and e-tourism is gaining in popularity.

The problem statement. The topic of application of the CRM concept in the service business has been

discussed quite extensively in the research of scholars of different countries. When it comes to the application of CRM tools in the tourism business, they are being used more by larger businesses - hotel chains, airlines, travel agencies. However, today's tourist is prioritizing a niche tourism product offered by smaller tourism providers. This means that small tourism companies also need to look for CRM principles in their operations. The modern tourist is expecting a personalized offer of a tourism product. It is a big challenge for the providers of tourism services to offer a tourism product as a "commodity of experience", which is acquired by those who transform their experiences into memories and build on them for further decisions. The problem of the scientific discussion in this article is concentrated on the theoretical opportunities to customize CRM tools in the value creating process of a tourism product offered by small tourism service providers.

The aim of the article: to identify benefits and risks of a CRM concept in creating process of a value-based tourism product offered by small tourism service companies.

The object of the research: assumptions, benefits and risks of a CRM concept.

The objectives:

- To uncover the relationship between the CRM concept and the relationship management.
- To identify benefits of the CRM concept for small tourism companies.
- To analyse risk factors impacting the success of the CRM concept in the creating process of a value-based tourism product.

Methods of the research: induction, comparative analysis and synthesis of partial knowledge.

The paper is organized as follows. The first subchapter introduces the assumptions of the CRM customizing in tourism business, the second subchapter presents expression of the CRM benefit in the tourism business, the third subchapter discusses the CRM in the tourism product value creation process.

Assumptions of the CRM customizing in tourism business

Due to rapidly changing technological innovations, growing customer needs, intensified competition and changes in the distribution system of tourism, the tourism sector, and in particular travel agencies, have been operating under difficult conditions in recent years (Prause et al. 2011). In addition, one of the key functions of travel agencies is to act as a consultant who takes care of the highest level of customer interaction. In order to maintain long-term relationships with customers, it is important that reciprocal communication and a climate of confidence prevail in the mutual relationship (Prause et al. 2011).

Changes in the tourism market and the importance of the content of the emotional tourism product value have created preconditions for the application of the relationship marketing tools in the tourist business. The rapid development of information technology has diminished the role of the intermediary function in the tourism business, with the simultaneous intensifying the

position of the user as an active operator in the development of the tourism product. Technological progress has also led to intensified competition as potential market coverage and sphere of influence have increased, prompting companies to look for other ways to gain competitive advantage (Damkuvienė et al. 2007). Over the past decades, the number of better educated and demanding consumers who are looking for goods and services tailored to their specific needs, has been growing (Harker et al. 2006). The necessity to understand rapidly the changing patterns of customer behaviour and to create a value offer that meets the structure of user needs has prompted organisations to develop collaborative relationships based on cooperation (Damkuvienė et al. 2007). It has become increasingly clear that for companies, the focus on production, service or sales is no longer sufficient to remain competitive, and that it is essential to dedicate their efforts on building, maintaining and strengthening long-term customer relationships and connections.

Although the majority of relationship marketing activities in the tourism business are customer-oriented to strengthen competitiveness, business-to-business relationships remain significant. In the context of competition for consumer choice moving towards qualitative content, it becomes essential to ensure the integrity of the tourism product generated by different tourism service providers in terms of the transfer of quality and value to the consumer. S. Baron et al. (2010), referring to Möller and Halinen (2000), relates this to market-based marketing (customer-centric marketing) and network-based marketing.

S. Dibb et al. (2004) cited by Chaffey et al. (2000), who argues that relationship marketing theory provides a conceptual framework for personalised marketing, which emphasises service delivery to the customer based on customer information and the focus on segmenting markets at the individual level. Direct marketing in tourism business provides opportunities to tailor the marketing communication and the tourism product structure to a specific client. The transaction marketing paradigm prevailed in the

R. Žvirelienė et al. (2008), I. Skačkauskienė et al. (2011) highlighted the key dimensions of relationship marketing that influence the development of successful relationships with consumers and other stakeholders: commitment, trust, communication, satisfaction, collaboration, empathy, guarantees, conflict management, consumer admiration, engagement, intent, loyalty (2008) notes that commitment and trust are the cornerstones of relationship marketing, while other elements are linked to trust and commitment. Summarising the relationship marketing modelling her research, I. Skačkauskienė et al. (2011) highlight the main objective areas of relationship marketing: consumer satisfaction, consumer admiration, engagement and intent, and consumer loyalty. Relationship marketing tools (direct marketing, data marketing, quality management, service marketing and customer collaboration) that are focused on the above-mentioned areas are selected to build and maintain a relationship of trust and empathy between consumers and businesses.

With its functional influence in the tourism business, relationship marketing is close to customer relationship management. Some authors (Baron et al. 2010) assume that the terms "relationship marketing" and "customer relationship management" (CRM) are largely identical, but most authors (Kim et al. 2012, Milovic 2012, Bahrami et al. 2012; Rababah et al. 2011) analyse CRM as a stand-alone concept, formed from relationship marketing. The focus of relationship marketing and customer relationship management concepts is long-term individual relationships between the company and customers for the benefit of both sides. Highlighting the differences between these concepts, it is argued that relationship marketing is strategy-related and that customer relationship management is more tactical in nature. Also, the concept of relationship marketing is more about emotions and behaviours as it focuses on feelings: commitment, empathy, reciprocity and trust. Meanwhile, the CRM concept focuses on efforts to attract, retain and strengthen customer relationships, and is therefore considered more of a management level (Rababah et al. 2011). Both lines of business are important as alternative forms of tourism become more popular, with the tourism product development focusing on the target market segment, as well as offering niche tourism products or exclusive travel to the market.

Expression of the CRM benefit in the tourism business

The scientific literature describes CRM in various ways – as a business philosophy (building a customer-oriented culture and building long-term customer relationships), as a business strategy (functional plans and actions to build customer relationships) and as a technological tool (using information technology for data collection, analysis and customisation through customer relationship management) (Rababah et al. 2011, Pedron et al. 2009). It is noteworthy that from a scientific point of view, the emphasis is placed on philosophical rather than technological CRM content. Kh. Rababah et al. (2011) summarised the CRM content analysis of C. D. Pedron et al. (2009) by stating that CRM as a philosophy is at the heart of any strategy and application of information technology, where philosophy is implemented by strategies intended to drive IT application.

CRM is also described as a method that requires software and technology that automates the company's business processes related to sales, marketing and customer service. Increasing access to information systems and falling prices for computer programs improve customer relationships in today's travel industry. From a strategic perspective, CRM is an organisational process that enables a company to measure customer's margin and manage customer relationships, thereby improving the company's profitability. Using information technology solutions and building a customer information base simplifies the customer relationship management (CRM) process (Fan 2008).

M. Wei (2010) describes CRM as a new management mechanism to improve corporate-customer relationships that can be applied as technical support in the marketing, service and other customer-related areas of the tourism

business so that customers always feel supported by service personnel and business will keep abreast of changes in customer needs. This encourages the travel agency to make the most of its available resources for customer interaction and to achieve management of travel choices from tourist flows, marketing and technical support, and mutual evaluation management.

In response to growing turbulence, a competitive and complex environment in the market and technology, relationship marketing based on customer relationship management (CRM) often becomes a strategy for tourism companies and marketing orientation (Prause et al. 2011). Travel agencies and other tourism companies were among the first to apply online marketing in their business and CRM. F. L. Lin et al. (2012) argue that customer data is essential in the tourism business. Travel agency managers use customer information to personalise promotional offers to target customers. Long-term customers cost organisations less and increase purchases because they are less likely to encounter problems and have fewer needs. In order to cope with changing consumer demand, travel agencies need to focus on market segmentation through CRM, thereby enhancing marketing and tourism product management. And IT can help improve CRM performance. As a result, CRM technology application can help organisations achieve all operational goals (Lin et al. 2012).

Although researchers provide different definitions of customer relationship management, the most commonly cited components that form the core of CRM can be identified. According to M. Almotairi (2009), CRM consists of three components: technology, people and business process. R. Jasilionienė et al. (2006) and H. Tohidi et al. (2012) provides a slightly different composition of CRM components. According to the authors, the key components of CRM are customer, relationship and management. The CRM concept emphasises the compliance with Pareto's rule according to which 80% of the company's revenue comes from 20% of customers. These clients should receive more attention, time and money investment than others, as attracting new clients is five times more expensive than retaining existing ones (Aizcorbe 2007). CRM can help select the most beneficial customers for your business. The data collected about customers becomes knowledge that results in a company's profits, but the company's activities can only be based on this knowledge when the data is processed and the decisions taken on the basis of it attract or retain customers (Urbanskienė et al., 2008).

R. Urbanskienė et al. (2008) highlights the benefits of CRM systems for business owners, employees, and customers:

- Higher profits achieved are the main benefits for the owners of CRM systems:
- Customer benefits of CRM systems: the possibility to receive offers in the appropriate form, when necessary and needed, to be properly serviced, to feel important, informed in time, the possibility to choose a service method (self-service, full service).
- Benefits of CRM systems for employees: the system helps to perform more activities at the same time, which involves higher salaries; a

sense of self-control, the possibility to show oneself as a leader and present it as an advantage of excellence.

According to J. Pai et al. (2011), the benefits of using CRM not only help a company reach a profitable market (or a business opportunity), but it also improves the competitive advantage of price reductions and the acquisition of a higher customer value compared to competitors. However, a truly successful CRM should integrate information technology (such as software, systems, etc.), information resources (such as customer databases, vendor interview records, good customer interaction, etc.) as well as organisational resources (such as customer-centric business culture, etc.); all of which can actually help to achieve the best performance (Pai et al. 2011). CRM implementation enhances the company's operations: brings more opportunities to build and maintain customer relationships, develop loyalty, customer segmentation, grow and measure customer satisfaction and value, more efficient management of information, communication and direct marketing, improve services, and reduce operating costs.

People, customer management and thorough evaluation are the most critical elements of success in the tourism business. In order for these elements to interact, a CRM implementation integrates a sales, marketing and service strategy that coordinates all aspects of customer exchanges with the primary goal of building relationships in providing (2012) stated that CRM is customer-focused and creates unique value by tailoring service to customer needs, promoting company commitments and increasing customer satisfaction and loyalty. CRM provides customer behavioural perception, on the basis of which companies differentiate and personalize their products. Sh. Wu et al. (2012) cites Sigala (2005) who states that successful CRM implementation requires management and integration of three management processes: information technology, relationships (internal and external) and knowledge management. As a result, CRM integrates internal and external company activities to enhance customer relationships and achieve company goals (Wu et al. 2012).

Ž. Karazijienė et al. (2013) highlighted issues that can be addressed through CRM systems:

- The customer database does not allow any customer to be forgotten;
- Customer segmentation allows you to conduct personalised marketing and make an offer for each segment;
- Aggregated data provides an opportunity to analyse customer behaviour and tailor various loyalty programs to relevant customers;
- The system collects information about clients and any decisions affecting an individual (in the case of legal entities). Thus when any staff changes occur, all customer contacts remain in the company
- The system collects all customer requests and complaints, which can be used to initiate changes within the company.

The CRM management system integrates the concept of customer relationship management and the latest IT technologies as essential tools to help travel agents

achieve their customer-focused management goal. In order to promote customer satisfaction, travel agencies need to have full control over customer information, accurately understand customer preferences, respond promptly to their individual needs, provide a convenient point of purchase, and engage with customer after he delivery of the service. Thus, the CRM system is a unified model for managing different relationships between travel agencies and their customers, designed to acquire new customers, maintain current ones, and conduct the customer performance analysis (Lei 2012).

CRM systems help tourism companies optimise customer resources and enhance their value. They can adapt information technology to analyse customers' past spending habits, purchasing opportunities and assess the degree of creditworthiness in order to offer more customer-oriented information to customers and related tourism companies. The ability of these systems to track the service stages and to carry out a detailed analysis of information facilitates the one-to-one relationship securitised by travel agencies with tourists and business partners. For these reasons, tourism companies can more expeditiously offer related products and services (cross-sales), improve the degree of customer satisfaction, increase their benefits and find new profit growth points. In addition, this system allows different types of marketing to be adapted to different tourists, i.e. to offer more services and better prices to important intermediaries, which can play an important role in stabilising customer resources.

CRM in the tourism product value creation process: consistency and risk factors

P. Lei (2012), using the value chain of Michael Porter, analysed the application of the CRM system at the travel agency management level. The CRM value chain includes the analysis of CRM systems in different types of travel agencies in terms of operational strategy, traveller understanding and analysis, and network-based customer relationships. By analysing traveller data, tourism companies distinguish between customers or groups of customers with a perception of value and try to learn as much about them as possible in order to provide a personalised service that will not only promote mutually beneficial relationships between travel agencies, but also help to strengthen customer relations management.

To determine the benefits of customer relationship management for the tourism business, customer relationship management in the hotel sector was analysed. According to P. Lei (2012), the main success factors in the tourism business are not only the quality of the product or service, but also the relationship with customers. High levels of customer satisfaction and good relationships are key sources of profit and performance. This means that retaining customers by increasing their satisfaction and loyalty is a crucial factor in hotel development. Following this approach, a two-dimensional CRM model was presented, distinguishing: customer relationship planning that focuses on customer relationships and a customer interaction system consisting of customer relationship tools.

Despite the listed benefits of using CRM systems, research shows that many companies that have implemented CRM systems have not achieved the benefits they expected. C. D. Pedron et al. (2009), referring to C. D. Payne (2006), states that:

- 69 per cent CRM projects have little impact on sales results;
 - company managers consider their CRM projects to be significantly less successful than those of their competitors or suppliers;
 - 70 per cent CRM initiatives fail in the next 18 months;
 - 60 per cent CRM projects end in failure.
- To explain the reasons for these statistics, C. D. Pedron et al. (2009) and M. Almotairi (2009) distinguished the assumptions that led to a decrease in CRM utility:
- CRM only as a perception of technology;
 - lack of skills in developing and using new CRM systems; short time of preparation process; exclusion of the end CRM user in CRM formation issues; insufficient CRM skills;
 - insufficient investment, as many projects significantly exceed the planned costs and sometimes even the scope of application;
 - poor data quality and quantity, mainly in the early stages of CRM development; low quality data; difficulties associated with obtaining and integrating data have not been assessed;
 - inability to grasp the benefits for business: many executives realise only the high cost of implementing CRM and are unable to understand the potential financial benefits;
 - lack of management support; lack of leadership and senior management involvement;
 - inadequate measuring systems: sometimes organisations do not know what they expect from a CRM implementation;
 - underestimation of long-term customer value;
 - cultural problems – many organisations need to change their core strategy (vision, goals, etc.) to become a customer-oriented organisation; lack of a customer-centred culture; lack of vision and strategy; lack of customer-focused vision; the need for change in the organization.
 - ineffective change management; underestimation of the importance of change management; inadequate reorganization of business processes.

M. Almotairi (2009), quotes Rigby (2002), who states that the main cause of CRM failure is the lack of a proper CRM development strategy. The researcher highlighted four risks of CRM implementation that need to be addressed:

- 1) Implementation of CRM before the development of a customer-oriented strategy;
- 2) CRM application before organisational changes;
- 3) the belief that the more CRM technologies the better;
- 4) consumer persecution instead of attracting them to their side. (Almotairi 2009).

Recognising the prerequisite for CRM application success is the integration of marketing and sales functions. If there is no link between marketing and sales, then sales themselves must collect information about customers and the sales will run again other activities that have already been carried out by the marketing department. In the absence of a link between the service and marketing departments, the marketing department spends a lot of time to determine the purpose of the product, consumption scenarios, which leads to a longer marketing planning process and reduces its effectiveness. Finally, if there is no connection between sales and service, the planning of the service work and forecasting of future contracts is more complicated (Erglis 2011).

Ch. Liu and X. Zhu (2009) distinguishes four CRM dimensions that indicate the consistency of the CRM process:

- 1) identification of customers. The CRM process begins with customer identification, also known as customer acquisition. This phase includes the exclusion of potential customers, the most useful groups of customers, and the analysis of lost customers and the search for opportunities to recover them.
- 2) attracting customers. By identifying potential customer segments, organisations can focus their efforts and resources on attracting targeted customers. A key element in attracting customers is direct marketing, which is defined as a process of promotion that motivates customers through various channels to purchase a product.
- 3) customer retention is a core goal of CRM. Customer satisfaction, as a result of meeting the expectations of customers and the perception of the benefits actually received, is a prerequisite for maintaining customers. Customer retention items include one-to-one marketing, loyalty programs and complaint management. Personal marketing prioritises personalised marketing campaigns based on customer behavioural analysis, identification and change prediction.
- 4) customer development. Customer development elements include customer lifetime value and analysis, cross-sales and market basket analysis. Cross-sales refers to promotional activities aimed at expanding into the company's goods or services used by customers, the number of similar and related goods or services.

T. Lin et al. (2012) provided a 4-step process for data collection that is commonplace and useful for the tourism business:

Step 1: Customer data collection. At this stage, tourism companies can discover other valuable customer information through their orders and membership registration processes. This information includes special preferences, the type of accommodation one wants and the duration of the trip, which can help tourism businesses modify their marketing campaigns and increase bookings.

Step 2: Classification of customer data collected. Tourism companies can analyse demographic information

that divides customers into segments that relate to customer purchases and needs.

Step 3: Identification of target segments. Identifies customer groups with similar behaviour, measures customer response to different offers, creates long-term relationships with customers.

Step 4: Improvement of services. High-profitability customers can be maintained by data collection tools that allow to personalise services according to the preferences of each customer.

Tourism companies should develop data collection technique, as this technique can help them develop marketing strategies and maximise the organisation's profits. Tourism companies should collect huge amounts of customer data that can be integrated into databases and are used to make marketing decisions about them. Travel agencies can monitor customer purchasing behaviour by using the submitted process to analyse the data collected. This helps tourism companies personalise marketing solutions and offers to match the preferences of different customers. Tourism companies can maintain regular customers, stop the transition of the most profitable customers to competitors, classify their preferences and influence the prices of short-term services, thereby optimising profitability (Lin et al. 2012).

In the tourism product development process, the aim is to strengthen user orientation, thus increasing the value of the tourist product for the consumer, the CRM application can be seen as a strategic use of customer data by integrating them into the loyalty scheme, using information technology. Improvement programmes of organisations are constantly evolving, taking into account the new possibilities of information technology in business processes, which can also be attributed to CRM. Proper use of information technology can help maintain customers through more efficient customer relationship management, based on knowledge and strong interaction.

Conclusions

CRM is usually analysed as a stand-alone concept, formed from relationship marketing. Highlighting the differences between these concepts, it is argued that relationship marketing is strategy-related and that customer relationship management is more tactical in nature. Also, the concept of relationship marketing is more about emotions and behaviours as it focuses on feelings: commitment, empathy, reciprocity and trust. Meanwhile, the CRM concept focuses on efforts to attract, retain and strengthen customer relationships, and is therefore considered more of a management level.

The benefits of using CRM not only help a company reach a profitable market (or a business opportunity), but it also improves the competitive advantage of price reductions and the acquisition of a higher customer value compared to competitors. CRM implementation enhances the company's operations: brings more opportunities to build and maintain customer relationships, develop loyalty, customer segmentation, grow and measure customer satisfaction and value, more efficient management of information, communication and direct marketing, improve services, and reduce operating costs.

Main risk factors impacting the success of the CRM concept in the creating process of a value-based tourism product is accompanied by business decision errors such as skill shortages, underinvestment, poor data quality and quantity, inability to understand business benefits, lack of management support, inadequate measurement systems, lack of long-term customer value perception, cultural issues, ineffective change management. In turn, the key to the success of CRM application is the integration of marketing and sales functions.

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THE DEVELOPMENT OF SMALL BUSINESS AS THE BASIS FOR THE SUCCESSFUL FUNCTIONING OF THE LATVIAN ECONOMY

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Abstract

In Latvia, as in many developed countries, micro and small enterprises make up a large proportion (over 98%) of businesses. Small business is not given due attention, there is no general concept of small business development, and there is a lack of support system for start-up entrepreneurs. The objective of the article is to identify the main socio-economic factors and the nature of their influence on the functioning of micro and small enterprises in Latvia. The novelty of the research lies in the fact that for the first time the overall system analysis of the main factors affecting the functioning of the small business cluster in Latvia has been performed. The object of the research is a cluster of micro and small enterprises in Latvia. The goal of the research is to develop recommendations for improving the functioning conditions of small businesses. Methods of research comprise system analysis, analysis of statistical data and mathematical modeling.

The theory of soft systems has been applied, in which the subjective factor (i.e., people) plays an important role. A cognitive map has been developed that reflects the interconnections and influence of the main socio-economic factors on the work of small and micro businesses in Latvia. The developed cognitive map is a sign directed graph – a mathematical model. It is established that the digraph under consideration and the system described are unbalanced. In general, the system is not stable enough. The situation of micro and small enterprises may deteriorate under the influence of various factors. According to the graph theory, the corresponding system of factors will be both absolutely and pulse unstable. This means that some impact on the system at one of its vertices can cause a “chain reaction” at other vertices and lead to undesirable consequences. To predict the behaviour of the system described by the digraph, an analysis of pulse processes in the system has been performed. Pulse is a single impact on the vertex of the digraph, for example, the effect of legislative change in taxes on enterprises in the direction of their reduction or increase. Using the calculated forecast values of the digraph vertices, it has been found out that the most positive influence on the functioning of micro and small enterprises is made by the state. As a result, this contributes to the growth of people’s income, the inflow of working-age population and qualified personnel into the regions and a decline in the unemployment rate. As a result, the state also benefits, since the increased tax revenues are collected, the unemployment rate is reduced and less people move abroad for work. Political tension and international sanctions also exert a negative impact on small businesses. They lead to the opposite effect – lower income, higher unemployment rate, the departure of people to work abroad and the “decline” of individual regions.

KEY WORDS: micro and small business; state aid; graph theory.

Introduction

In Latvia, as in most developed countries of the world, the economy is based on micro and small enterprises – more than 98% of all enterprises by number (Kochetkov, Sventitskaya 2016). In the European Union as a whole, such enterprises account for about 99% of all enterprises, and about 65% of private sector employees work for them (Sventitskaya, Kochetkov 2018 [1]). In Latvia, these enterprises employ the majority of the country’s able-bodied population. Micro and small enterprises in Latvia are functioning quite successfully. For example, they survived better than many larger enterprises during the last world financial and economic crisis of 2008–2010 and quickly began to increase output after the crisis ended.

Micro and small enterprises successfully cooperate with larger enterprises, often performing unusual tasks (Siropolis 1990). In highly developed countries of the European Union, there are systems of state support for micro and small businesses, since such a business improves the state of the socio-economic system of countries as a whole (Sventitskaya, Kochetkov 2018 [2]). Thanks to it, the unemployment rate is reduced, and the economic situation of the low-income population is improving. Latvia also has a state system for supporting

small businesses. However, it does not work well enough, mainly due to insufficient funding.

The development of micro and small business in Latvia is in line with global trends in the formation of a mixed flexible economy, combination of different forms of ownership and farm models (Stecenko et al 2018). This sector of the economy largely determines the rate of economic growth, employment, structure, quantity and quality of gross national product. It influences the economic independence and security of the state, which are of high importance during various economic sanctions, the instability of world markets and structural unemployment. The share of the total value of small business products in Latvia’s GDP is more than 20% (Kochetkov, Sventitskaya 2016). However, this indicator is much lower than in the highly developed countries of the European Union, where it accounts for about 70% of GDP. In terms of the number of small and micro enterprises per 1000 inhabitants, Latvia is still significantly behind the leading EU countries by more than 2.5 times. The experience of overcoming the financial and economic crisis of 2008–2010 demonstrated that small enterprises in Latvia with a small number of employees (up to 10–12 people) were more successful than companies with a large number of employees.

During the last global financial and economic crisis (2008–2010), Latvia’s GDP per capita decreased.

However, after the crisis it has steadily been increasing (Sventitskaya, Kochetkov 2018 [1]). There is an increase in the number of working people in the country, and the unemployment rate is declining. This is also due to an increase in the number of self-employed persons; in total there are about 85 thousand of them in Latvia, that is, about 9.8% of the total number of employees. In recent years, the income of self-employed persons subject to taxes has been increasing. For example, in 2016, tax revenues from self-employed persons to the state budget almost quadrupled compared to 2014. Self-employed persons independently find work for themselves, run their own “business”, without having hired workers. This form of micro-entrepreneurship as the self-employment of the population helps reduce the number of people leaving the country to earn money abroad. This is especially true for youth, as the unemployment rate in the youth environment is quite high (Golubkova et al 2019).

Subject and relevance. In many countries of the world (Great Britain, France, Canada, and many others), national programs for the development of self-employment and attracting unemployed, especially young people, to this sphere are successfully functioning. Unfortunately, Latvia so far lags behind other countries in the development of self-employment of the population. Issues related to the nature of self-employment of the population in different regions of Latvia have not been investigated yet. The National Strategy for Social and Economic Development does not contain plans for the development of self-employment of the population at the places of residence in order to deter people from economic emigration to other EU countries (Цайркубуле, Махмудова 2017).

Small and micro businesses and self-employed persons face a number of problems that impede the development of this business in Latvia and make it difficult for these enterprises to enter both domestic and foreign markets (Sventitskaya, Kochetkov 2018 [1]). Existing problems are conditionally divided into internal and external. Internal problems (qualification of employees, attraction of financial resources, etc.) are

often successfully solved by the management of enterprises with the assistance of state bodies. External problems are more significant and cannot be solved only by the management of enterprises (Sventitskaya, Kochetkov 2018 [2]).

The main problems of small business as a whole, identified by the expert evaluation method, are the following (Sventitskaya, Kochetkov 2018 [2]):

- frequent changes in tax legislation in the country and the amount of taxes;
- difficulties with the acquisition of modern high-tech equipment due to its high prices;
- the lack of sufficient initial capital;
- the lack of qualified personnel that is a common acute problem for any enterprise in Latvia;
- the difficulty of obtaining “cheap” loans experienced by novice entrepreneurs.

The Republic of Latvia is historically divided into four regions, its capital – Riga – and the Riga region. The capital of Latvia, Riga, and its region, are the richest ones in terms of budget revenues. For example, tax revenues to the Riga budget in 2017 amounted to € 683.7 million. The second largest city in Latvia – Daugavpils – and the resort city Jurmala together received only € 104 million. About 60% of all Latvian enterprises operate in Riga and its surroundings, employing more than half of the country’s able-bodied population. The number of economically active residents in Riga and the region is more than 520 thousand people, while in the country as a whole there are about 990 thousand economically active residents. The unemployment rate in the capital was only 4% in 2017, while the national average was 6.8%. At the same time, in the Latgale region, the unemployment rate was 15.8%, and the incomes of the inhabitants were the smallest in the country – they amounted to less than 450 € per inhabitant a month. The remaining regions occupy an intermediate position, but also lag behind in terms of the main indicators from the metropolitan region (Kochetkov, Sventitskaya 2019).

Table 1 provides the average statistics by the regions of Latvia (2014–2016) (CSB 2018).

Table 1. Average annual statistical data on self-employed persons in the regions of Latvia

Regions	Vidzeme	Latgale	Zemgale	Kurzeme	Riga & district
Unemployment, %	11.5	18.1	12.3	11.3	7.4
Income of 1 taxpayer, €	4957	5316	5474	4981	8102
Tax from 1 taxpayer, €	186	96	177	146	484
Ratio of self-employed persons to economically active residents, %	11.8	8.26	7.83	10.9	8.03

As it follows from Table 1, Riga and the region are the most favourable ones in terms of employment and income earned by the working population. According to Eurostat, in the European Union (EU) the average poverty risk is about 17%. In Riga, the risk of poverty is even less

than average – 15%. However, in the depressed Latgale region, it accounts for 44%.

The low standard of living in many regions of Latvia encourages people to move either to the capital region or to other EU countries to find work. Since 2010, Latgale has “lost” 14% of its inhabitants, which is the largest ratio compared to any other territory. In the midst of the

crisis of 2008–2010, 35 thousand people annually left Latvia (CSB 2018). In total, the “net loss” of the country’s population after 2000 amounted to more than 300 thousand people. It is very bad that among them there were quite a lot of people with higher education (about 100 thousand) who could not find application for their skills and competences at home (Golubkova et al 2019). In 2018, about 16 thousand people left Latvia to work in other EU countries, and 11 thousand people came to Latvia to work mainly from Ukraine, Belarus and Russia. Thus, due to labour migration the population has decreased by 5 thousand people. It should be noted that the negative balance of migration is gradually decreasing, but still remains significant.

The total average salary level in Latvia annually increases by 4–6%. However, by region it varies significantly (Цауркубуле, Махмудова 2017). Salaries in Riga and the region are about 10% higher than the average salary in Latvia, and in other regions salaries are 15–30% lower than the average. The labour market in Latvia is characterised by a rather high level of unemployment and low real salaries in comparison with the average indicators of the European Union. World experience demonstrates that neither large business nor the state is able to create a sufficient number of jobs. Therefore, it is necessary to develop micro and small businesses as well as to promote self-employment of the population in the regions (Kochetkov, Sventitskaya 2019). This will help reduce unemployment, resolve the socio-economic issues of the population (Tsaurkubule 2017). The analysis has revealed that the unemployment rate in the regions is closely related to the level of taxes imposed on employees. In Latvia, compared to other EU countries, taxes imposed on employees are rather high.

The objective of the article is to identify the main socio-economic factors and the nature of their influence on the functioning of micro and small enterprises in Latvia. *The novelty of the research* lies in the fact that for the first time the overall system analysis of the main factors affecting the functioning of the small business cluster in Latvia has been performed. *The object of the research* is a cluster of micro and small enterprises in Latvia. *The goal of the research* is to develop recommendations for improving the functioning conditions of small businesses. *Methods of research* comprise system analysis, analysis of statistical data and mathematical modeling.

Research Methodology

Any enterprises, including micro and small enterprises, can be considered an open system, the functioning of which depends on resolving the internal and external issues. It is impossible to make forecasts about the behaviour of complex systems based on human experience and intuition (Райзберг, Фатхутдинов 1999). Therefore, as a tool for analysing the functioning of the cluster of micro and small enterprises in Latvia as an integral part of the country’s socio-economic system, the study used cognitive mapping, combining systemic and cognitive approaches. In accordance with the existing classification, the socio-economic system is classified as

a “soft” system that can adapt to changing external conditions (Gigch 1978). In such systems, a significant role belongs to the human factor, people who make decisions. Cognitive mapping allows developing schemes or cognitive maps suitable for quantitative analysis. Mathematical maps are signed oriented graphs (digraphs) that allow analysing the cause-effect relationships in systems (Hage, Meeker 1988). Methods of research include system analysis, analysis of statistical data and mathematical modeling.

Computations and Analysis

In the constructed digraph A (Fig. 1), there are 10 vertices, 5 negative arcs, and the remaining 8 arcs are positive. The arcs indicate significant cause-effect relationships between factors. The sign “+” is assigned to the arc (u_i, u_j) if an increase in u_i leads to an increase (gain) in u_j , and a decrease in u_i leads to a decrease in u_j . The sign “-” is assigned if an increase in u_i causes a decrease in u_j , while a decrease in u_i , on the contrary, leads to an increase in u_j . In the general case, any digraph G is a pair (U, A), where U is some set of vertices, A is a set of ordered pairs of elements from U (many arcs with signs “+” or “-”) (Roberts 1976). Cause-effect relationships between the vertices of a digraph can be positive “+” or negative “-”. In the digraph under consideration, there are contours – closed chains of the arcs of one direction and semi-contours – chains of arcs of different directions.

In a digraph, there are three balanced contours with positive feedback:

- a) $u_7-u_2-u_1-u_7$;
- b) $u_1-u_7-u_8-u_9-u_1$;
- c) $u_1-u_{10}-u_8-u_9-u_1$.

When a positive (negative) pulse is introduced into any vertex of these contours, it will return along the contour to the same vertex with an increase (decrease). Each of these contours contains only positive arcs, or both positive and even number of negative arcs. An even number of negative arcs in the contour or half-contour bring about a positive effect similar to the situation when only positive arcs are present. In this case, the system will be balanced. For example, if in the contour “c” a single pulse is introduced to the vertex u_1 (introducing some kind of innovation into enterprises), which will allow expanding production volumes, then the unemployment rate (u_{10}) will decrease in the regions. It will also attract the able-bodied population (u_8) and qualified personnel (u_9) to these regions. As a result, the situation will continue to improve at the initial vertex (u_1).

In general, in the socio-economic system (digraph) under consideration there are two semi-contours:

- d) $u_7-u_2-u_1-u_8-u_7$;
- e) $u_3-u_4-u_1-u_2-u_3$.

These semi-contours are balanced because they contain an even number of negative arcs. For example, if in the semi-contour e) government aid to small businesses (u_3) increases, let us suppose tax reduction (u_4), then this will contribute to the development of micro and small enterprises (u_1). The available financial resources (u_2) will increase, which will be positive for the state (u_3): a

decrease in unemployment, an improvement in the social sphere, etc. Similar processes will take place in the semi-contour d). For example, the growth of population incomes (u_7), contributing to the development of small business (u_2, u_1), reduces the unemployment rate (u_0), and the number of employees (u_8) increases. People's incomes also continue to increase (u_7). Thus, the system described by the digraph is partially balanced.

A rather significant but negative role in the system under consideration is played by various international sanctions and the political tension caused by them in the country and in the world. According to the proposed scheme, there are two negatively affecting contours that lead to an imbalance in the system:

- 1) $u_6-u_5-u_3-u_2-u_1$;
- 2) $u_6-u_5-u_3-u_4-u_1$

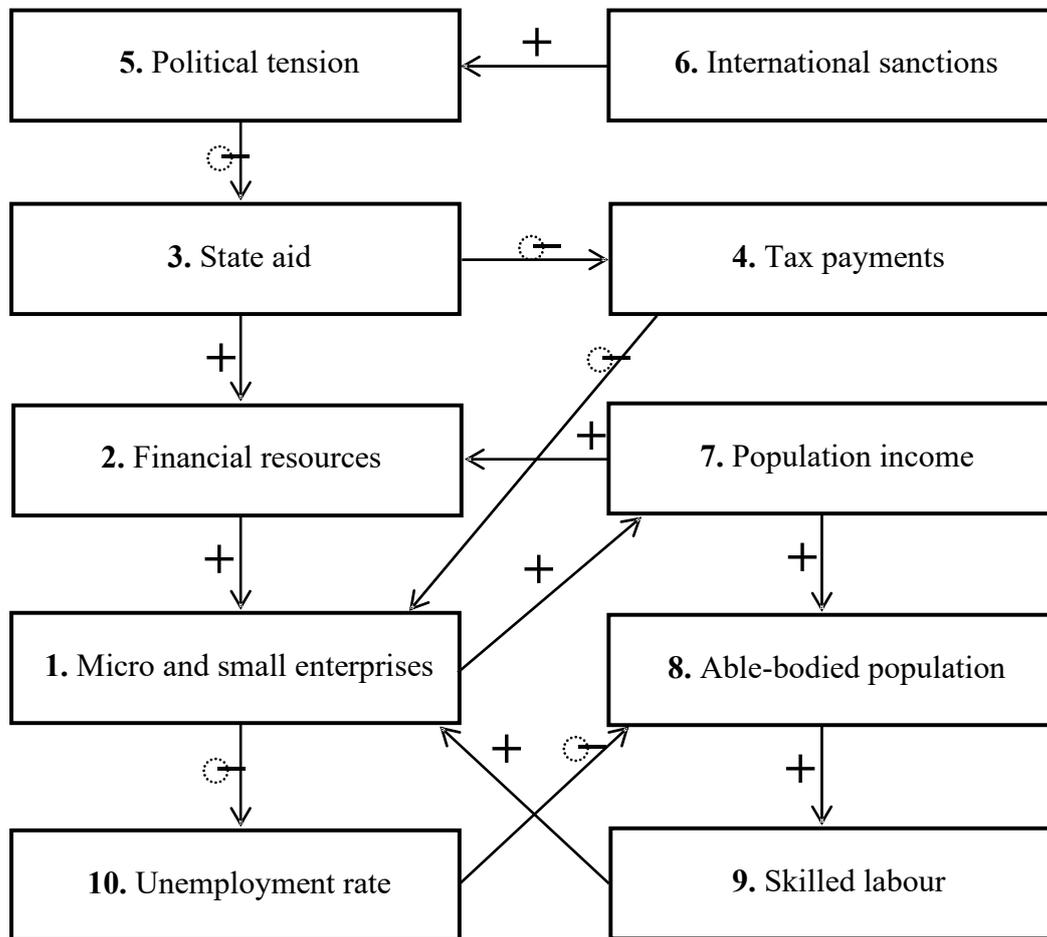


Fig. 1. A cognitive map of the system of interconnections of the main factors affecting the functioning of the small business cluster in Latvia. The numbers of factors correspond to the numbering of the vertices of the signed oriented graph A (u_1, u_2, \dots, u_{10}).

Here, international sanctions (u_6) cause an increase in political tension (u_5), which negatively affects the assistance to small businesses from the the state (u_3), which is forced to increase defense spending. This can cause both an increase in taxes (u_4) and a decrease in financial support for small business (u_2). Together, this all worsens the position of the cluster of micro and small enterprises (u_1) in Latvia. In general, the system described by the digraph becomes unbalanced. Small businesses can have very limited impact on such negative processes to improve the situation. Usually they are looking for new markets for their products, new sources of raw material supply or switch to the production of other types of products in accordance with the needs of customers.

Digraph A considered in the study (Fig. 1), which describes the socio-economic system, was tested for absolute and pulse stability. For this purpose, an analysis of the adjacency matrix of digraph A was performed. The adjacency matrix of a signed graph is as follows (Fig. 2).

The lack of stability in the digraph indicates that processes can occur in the system of factors described by it that adversely affect the functioning of the cluster of small enterprises. For this analysis, the eigenvalues of the adjacency matrix of digraph A were calculated. The characteristic polynomial of the adjacency matrix of the digraph is as follows:

$$C_A(\lambda) = \det(A - \lambda E) = \alpha_9 \cdot \lambda^9 + \alpha_8 \cdot \lambda^8 + \dots + \alpha_1 \cdot \lambda^1 + \alpha_0 \cdot \lambda^0,$$

where \det – the determinant of the matrix;
 E – the corresponding unit square matrix;
 α_i – the coefficients of the characteristic polynomial at roots λ_i .

Parameters λ_i are the roots and the eigenvalues of the matrix A only if they satisfy the equation:

$$C_A(\lambda) = \det(A - \lambda \cdot E) = 0.$$

$$A := \begin{pmatrix} 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 & -1 \\ 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 \\ -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & -1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & -1 & 0 & 0 \end{pmatrix}$$

Fig. 2. The adjacency matrix of digraph A.

The adjacency matrix takes the following form: $A = (\alpha_{ij})$, where

$$(\alpha_{ij}) = \begin{cases} +1, & \text{if the edge (i, j) is positive,} \\ -1, & \text{if the edge (i, j) is negative,} \\ 0, & \text{if the edge (i, j) is absent.} \end{cases}$$

As a result of the calculation, the following

eigenvalues of the adjacency matrix of the digraph were obtained:

$$0; 0; 0; 0; 1.353; -0.177+1.203i; -0.177-1.203i; -1; -1.082 \cdot 10^{-8}; 1.082 \cdot 10^{-8}.$$

Among these values, there is one eigenvalue that exceeds one in absolute value. According to the graph theory, in this case the system of factors described by the digraph will be both absolutely and pulse unstable (Roberts 1976). This means that the introduction of pulses in the analysed system to the vertices (u_6) or (u_5) will lead to an increase in negative pulses at other vertices of the digraph, and the conditions for the functioning of the cluster of small enterprises will deteriorate.

To forecast the state of the system of factors described by digraph A, an analysis of pulse processes in the system was performed. Pulse refers to a single impact (positive or negative) on the vertex of a digraph. Theorems on pulse processes in digraphs were used (Roberts 1976). In vector form, the theorem of a simple pulse process in a digraph can be written as follows:

$$P(t) = P(0) \cdot A^t,$$

where $P(t)$ – the vector of pulses;

t – discrete instants of time, $t = 0, 1, 2, \dots$

$P(0) = (0, 0, \dots, 1, 0, \dots, 0)$ with “1” at the i -th place.

In the pulse process, pulses propagate and change in a digraph in connection with this parameter of the digraph vertices. The adjacency matrix of digraph A was used as the initial one (Fig. 1). The calculated forecast values of the vertices of digraph A are presented in Table 2.

Table 2. The forecast values of the vertices of digraph A at time $t = 10$

	The vertices of the signed digraph									
	u_1	u_2	u_3	u_4	u_5	u_6	u_7	u_8	u_9	u_{10}
u_1	20	13	0	0	0	0	14	26	18	-14
u_2	14	10	0	0	0	0	13	18	10	-13
u_3	26	11	1	-1	0	0	18	20	16	-18
u_4	-14	-9	0	1	0	0	-13	-18	-10	13
u_5	-18	-9	-1	1	1	0	-10	-16	-16	10
u_6	-10	-9	-1	1	1	1	-8	-16	-8	8
u_7	22	10	0	0	0	0	15	19	17	-14
u_8	13	5	0	0	0	0	9	11	9	-9
u_9	14	9	0	0	0	0	13	18	11	-13
u_{10}	-9	-4	0	0	0	0	-5	-9	-9	6

To calculate the propagation of the pulse process in the digraph with initial vertex u_i , the following formulas are used:

$$V_j(t) = V_j(\text{ref.}) + \left\{ \text{element } i,j \text{ in matrix } E + A + A^2 + A^3 + \dots + A^t \right\},$$

where $V_j(t)$ – the value of vertex u_j of the digraph at discrete points in time $t = 0, 1, 2, \dots$,
 E – the corresponding unit matrix.

A single pulse is introduced sequentially to all the vertices of the digraph (left column of Table 2). The calculation was performed for 10 time periods ($t = 10$). The predicate of Table 2 shows the values of the corresponding vertices of the digraph after 10 time intervals. The most significant positive impact on the condition and operation of small businesses (u_1) is exerted by the state (u_3): after 10 time periods, the vertex (u_1) changes by 26 units in the direction of improvement (“+” sign). At the same time, income of the population

(u_7) also increases (+18 units), the working-age population (u_8) (+20 units) and qualified personnel (u_9) (+16 units) are attracted to the region. The unemployment rate (u_{10}) declines (-18 units).

A positive impact, but to a lesser extent, on the functioning of small businesses is exerted by the introduction of positive pulses to the vertex of the digraph (u_1), (u_2), (u_7), (u_8), (u_9). Thus, an increase in household income (u_7) will contribute not only to the growth of financial resources (u_2) invested in the development of enterprises, but also to the attraction of able-bodied qualified personnel (u_8), (u_9). The number of people moving to other countries to find work will also decrease.

The introduction of pulses to the vertices of the digraph has a negative effect on the operation of small and micro enterprises: (u_4), (u_5), (u_6), (u_{10}). Political tension in Latvia and in the world (u_5) has the most negative impact on small business in the country (u_1) (-18 units). As a result, the number of working-age persons (u_8) and that of qualified personnel (u_9) (-16 units) are decreasing. The largest increase in unemployment (u_{10}) is caused by increased political tension (u_5) and increased taxes (u_4) (10 and 13 units, respectively).

Conclusions

Small business is an integral element of any developed economic system, without which the economy cannot effectively develop. World experience shows that the development of small business is of great importance in solving the socio-economic problems of the country. The stimulation of entrepreneurial activity, the development of small business should become a tool to achieve national goals – diversification of the economy and the development of its innovative potential. Small business is, on the one hand, a tool for solving the country's social problems, as it provides the population with jobs, increases the employment of socially disadvantaged groups of society (youth, women, and pensioners), and on the other hand, according to the experience of developed countries of the world, it is an effective way for the development and implementation of innovations.

Small business has a certain potential for optimising the development of the economy and society as a whole. A characteristic feature of a small enterprise is the high intensity of use of all types of resources and the desire to optimise their quantity. In practice, it means that a small enterprise cannot have excess equipment, excess reserves of raw materials and excess employees. This fact is one of the most important factors in achieving rational indicators of the economy as a whole.

The socio-economic system, including micro and small enterprises in Latvia, is only partially balanced, and it is not stable enough. The system of factors affecting the operation of the cluster of small enterprises in Latvia is also absolutely and pulse unstable. Under the influence of certain external factors, for example, international sanctions, the stability of the system may be violated, which causes negative consequences (increase in unemployment, decrease in income, etc.).

In this situation, the most effective factor creating a positive impact on the functioning of the system is state aid. State aid can be provided in various forms: stimulating the production of the priority types of products, providing tax benefits, subsidies for preferential bank loans, creating information and advisory centers, as well as scientific and technical centers, developing the insurance system, etc. An important role is played by the adoption and implementation of special legislation on supporting small enterprises. The task of creating a favourable economic environment for the development of the small business segment in the country is quite complicated, since it requires taking real practical measures simultaneously in several areas. Enterprises themselves must also be proactive in overcoming difficulties. It may be manifested through an active search for new sources of raw materials, markets, attracting qualified employees to develop new types of products, introducing innovations, etc.

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DISCOURSE ON GREEN TECHNOLOGIES AND THEIR APPLICATION

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Abstract

Green Technology is one of the top 6 priorities of the European Union, expressed as the European Green Deal – a growth strategy to transform the EU into a competitive economy. Since Green Technology is a field in its' growth phase, there is still some ambiguity left, especially when describing it. This research aims at identifying the most important features that define Green Technology. To achieve this, the origins and contents of Green Technology are analysed by using the literature review method from two points of view - regulation and industrial. Contributing features and their origins are identified and further analysed. To obtain the viewpoint of the Green Technology industry representatives, the features are ranked by identifying them through the experimental research and the knowledge of the industry experts. The research provides conclusions on the theoretical basis of Green Technology, including the explanation of the viewpoint of the industry, as well as the knowledge and the observations of possible tendencies. The provided description of the key features that contribute to the identity of Green Technology and its' application has revealed that the most important attribute in describing Green Technology is the economical/ecological need for the technology. The priority is set to the assessment of the needs and abilities of Green Technology over the regional policy, thus emphasizing the market situation against the regional policies related to supporting such initiatives.

KEY WORDS: Green Technology; Clean Technology; Technology Management; Eco-Innovation; Sustainability.

Introduction

The technological growth of the last decades has made significant improvements in the global economy – increased number of production and decreased number of resources to make it have made the production of various fields more accessible. However, it comes with a price – rapid and environmentally uncontrolled growth of industries has caused damage to the environment. In the past, the negative environmental impact could be contained locally, thus not raising global awareness. Now, however, the negative impact has reached a global scale and affects every region by climate change. It is a growing obstacle for governments and societies, raising health and environmental concerns. One of the ways to tackle climate change is by adopting Green Technologies. Scientists and engineers around the globe are focusing their effort on solutions that reduce the impact of technology on climate change. Studies in the field of the environmental impact of technology estimate that by the year 2100, energy consumption increases to nearly four times the levels of the year 2000, as economic growth outpaces improvements in the efficiency of energy use (Clarke et al., 2007). While a large increase of up to 9 times is expected for non-fossil fuels over time, it is still estimated to be insufficient to allow fossil fuels to be excluded from the market. Subsequently, global emissions of CO₂ gases are estimated to triple between 2000 and 2100. Stabilization of this situation requires a transformation of the global energy system, including reductions in the demand for energy (Clarke et al., 2007).

Green Technology being a field that is in its' growth phase, there is still some ambiguity left, especially when describing it. This discourse aims at providing systematic knowledge about the term, its' evolution and the magnitude of Green Technologies and their usage through the analysis of the subject.

The goal of this research is to define the features that influence the development and application of Green Technologies. To achieve this goal, the following tasks are set: analyse the terminology of Green Technology; define and describe the features that influence the development and application of Green Technologies; carry out survey-based research to define the features that define Green Technology and its' application.

The subject of this research is Green Technology and the research methods include: literature review; systemization; survey; comparative analysis; statistical analysis and prioritization.

The results of this research are the description of the key features that contribute to the identity of Green Technology and its' application achieved through a systematic analysis. This study has revealed that the most attribute to describe Green Technology is the economical/ecological need for the technology, the priority is set to the assessment of the needs and abilities of the Green Technology over the regional policy, thus emphasizing the market situation against the regional policies related to supporting such initiatives.

The Evolution of the Green Technology Concept

The term Green Technology has originated in the reports of the government of the United Kingdom in 1989 and has witnessed growth ever since. Currently there is a broad array of definitions of the concept that can be witnessed throughout various scientific and industrial sources.

The aim of Green Technologies is to reduce the footprint of the environmental damage. Green Technologies is a term that describes efficient technologies with focus on friendliness to the environment. This means that equipment, based on such technologies has to be efficient to operate, not over-powered and environmentally safe to dispose of when the life-cycle of it ends (Webber & Wallace, 2009).

Authors Bonds and Downey (2012) define green (or clean) technology as an interdisciplinary field between scientific disciplines (e.g., green chemistry, environmental monitoring, electronics, etc.) to monitor, model and sustain the natural environment while reducing the negative impact of human activity. The term is also used to describe sustainable energy manufacturing technologies, such as photovoltaic technologies, wind turbines, bioreactors, etc. Sustainable development is considered to be the cornerstone for environmental technologies (Bonds & Downey, 2012). From another perspective of Šneiderienė and Ruginė (2019), Green Technologies are defined as innovations that are from the fields of energy saving, pollution prevention, recycling, eco-design and environmental process management.

Also, as there is no unified definition for the term of Green Technology, the near-synonyms of it (Green Engineering, Eco-Innovation, Environmental Engineering) are included in this research. To understand what lies underneath the concept, an analysis of various sources definitions is provided.

An early definition presents Green Engineering as a systematic approach to process and product design where environmental features are treated as primary objectives. The approach has the main goals of: (i) waste reduction; (ii) materials management; (iii) pollution prevention; (iv) production enhancement (Billatos, 1997).

The term Eco-Innovation is defined as products and processes that significantly decrease environmental impacts (Bartlett & Trifilova, 2010). Similarly, Eco-Innovation is defined as the production or exploitation of a product or process, service or management that results in the reduction of environmental risk, pollution and other negative impacts of resources use compared to relevant alternatives (Kemp & Pearson, 2007).

A slightly different term of environmental innovation is described as new or modified practices, systems and products that benefit the environment and contribute to the environmental stability (Oltra & Saint Jean, 2005).

Based on these definitions, a common ground has been established to define what unites all of the terms and their explanations. The authors conclude that the aforementioned synonyms can be used interchangeably. The core features of the definition are (Schiederig, Tietze, & Herstatt, 2012):

1. innovation object;
2. market orientation;
3. environmental aspect;
4. phase;
5. impulse; and
6. level.

A graphic representation of these features and their sublayers are presented in Figure 1.



Fig. 1. Green Technology definition features (developed by the authors)

The first two features are more general and can be applied to any kind of innovation. According to these features, it can be concluded that innovation can be either a service, method, process or a product that has a purpose to satisfy the market need. Therefore, these features do not emphasize the necessity of Green Technology. However, looking at the broader definition of the term, innovations are meaningful only when they have been identified as one of the goals of an organization. SAP innovation strategy mentions that innovation consists of two non-separable stages: finding the right problem and finding the right solution for this problem (Lockwood & Papke, 2017). Therefore, although these features are more generic, they are a key component when defining the need for Green Technology, as they help to identify the market need and where it comes from.

The environmental aspect defines the benefit or reduction of damage Green Technologies are imposing. A comparative analysis is required to define the magnitude of the benefit or reduction of damage the Green Technology is offering, compared to the typical solutions available on the market.

Phase Feature defines that using Green Technology is not necessarily beneficial for the environment throughout the whole lifecycle. Therefore, it is useful to segment the added value of Green Technology-based innovation throughout the different parts of the lifecycle (Reid & Miedzinski, 2008).

Impulse Feature defines the two main reasons why these innovations are being developed. The impulse can either be of economical or ecological nature. The economical impulse can be driven by smaller-scale local initiatives, while the ecological nature is typically arising from governmental initiatives.

The level aspect defines the level of systematic approach to Green Technology and environmental protection within the developing organization. This shows the effort and the magnitude of change required within the organization to steer it towards an environmentally friendly approach.

Therefore, there is a significant challenge in scientifically defining Green Technologies and the features that define them. It is certain that constantly appearing new economic initiatives to support the development of Green Technologies can attract various interests. Therefore, it is

essential to develop a unanimous set of features that define what can be considered to be Green Technology. World Intellectual Property Organization (WIPO) has elaborated on this matter and established a context for the existing and desired global states of Green Technology in their strategy (WIPO, 2019). Their findings are as follows:

- No internationally recognized categorization standard for Green Technologies exist at the moment;
- The environmental initiatives have proven to be effective, thus the geopolitical climate regarding Green Technologies is on an upward trend;
- Supporting of Green Technology requires an in-depth understanding of the overall ecosystem, financing schemes and timescales;
- Green Technology is a slow-return investment;
- Green Technology deployment and operation require skilled labour, thus increasing maintenance costs.

Green Technology initiatives are focusing on sustainable development. From the regulatory point of view, they are an outcome of environmental policy initiatives that took off in the 1980s. An analysis of environmental policy integration has revealed the main objectives of the process. It aims at achieving sustainable development and prevent environmental damage, removing contradictions between and within policies and realizing mutual benefits and the goal of making policies mutually supportive (Lafferty & Hovden, 2003).

Looking at the early attempts to implement environmental policies, one of the examples is the European Union Environmental Action Plan from 1973. It states that the environment cannot be considered as external surroundings, but rather it must be considered an essential Feature in the organization and promotion of human progress. Further on, it emphasizes the necessity to evaluate the effects on the quality of life and on the natural environment of any measure that is adopted or contemplated at national or Community level and which is liable to affect these features (Communities, 1973). Two decades later it was decided that environmental considerations must be integrated into other policies thus showing strong support for green initiatives from the regulatory perspective (Lafferty & Hovden, 2003). A goal has been set to limit the global mean temperature increase by 2 degrees Celsius by the Paris Agreement. Achieving this goal requires major changes in the global consumption of energy (Rogelj, et al., 2016).

Until 2020 these initiatives have evolved into the need of technologies, processes and business models that use resources more efficiently. Within the context of the European Union (EU), they are called them Eco-Innovations. Implementing Eco-Innovations requires fundamental changes in production and consumption. The EU contributes a third of the world market with an annual turnover of EUR 320 billion, showing 8% growth per year since 2004 (Spain, Markianidou, & Doranova, 2018). Additionally, it is estimated that the demand for Green Technology is expected to grow by 6.9 per cent annually to 5,9 billion euro in 2025 (WIPO, 2019). Green Technology is one of the top 6 priorities of the European Union, expressed as the European Green Deal (see Fig. 2). This deal is a growth strategy to transform the EU into a competitive

economy, where the economic growth is decoupled from the usage of natural resources (The European Green Deal, 2019).

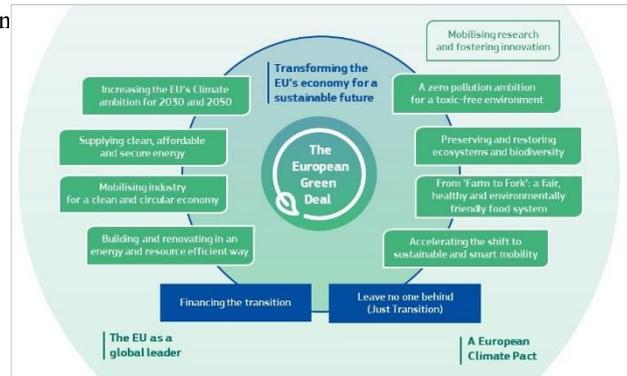


Fig. 2. The European Green Deal (The European Green Deal, 2019)

The analysis of the terminology of Green Technology, its aspects and evolution has led to a conclusion that the term Green Technology is generic and it defines the interaction of technology and science in the development of new technologies that have the main aim of environmental protection and, in some cases, reduction of past damage. Green Technologies can be applied in eco-product development, recycling, water purification, clean energy and resource-saving.

The Challenges of Green Technology Application

Given the aforementioned definition of the term of Green Technologies as technologies, significantly decreasing environmental impacts (Bartlett & Trifilova, 2010) the scope needs to be established from the technological point of view. World Intellectual Property Organization (WIPO) specifies the areas in which Green Technology initiatives arise and their distribution (Kwakwa, 2018). They are:

- Building and Construction (1%);
- Chemicals & Advanced Materials (4%);
- Energy (51%);
- Farming/Forestry (7%);
- Green Products (6%);
- Pollution & Waste (20%);
- Transportation (2%);
- Water (9%).

Although Green Technology is an umbrella term for environmentally-conscious technology, there are certain differences from other areas of activity.

From the intellectual property management, the challenges are that a single patent cannot block an entire technology, thus the speed of implementation of technology becomes critical. As Green Technology is a direction rather than a separate industry, new technology in this field mostly offers incremental improvements, therefore they can be designed around (Horton, 2011).

The United Nations (UN) specify these specific domains as the main focus for the evolution of Green Technologies (Suh, Bergesen, Gibon, Hertwich, & Taptich, 2017):

1. Buildings:

- a. Efficient lighting – incandescent lamp, compact fluorescent lamp, light-emitting diode, fluorescent luminaire, LED luminaire, kerosene lamp;
 - b. Building shell insulation – Silica aerogel, cellulose, expanded polystyrene, foam glass, glass wool, high-density board, polystyrene foam slab, rock light density board, urea-formaldehyde;
 - c. Demand-side energy management – building energy management systems;
 - d. Information and communications technology – desktop personal computer, laptop, smartphone, television;
2. Industry:
 - a. Copper production – shaft furnace smelter, Outokumpu flash furnace copper smelter;
 - b. Co-generation – natural gas-fired gas engine, gas turbine and chemically recuperated gas turbine;
 3. Transportation:
 - a. Passenger – petroleum and diesel car, battery electric vehicle, diesel bus, diesel train, electric train, high-speed rail, aircraft;
 - b. Freight – medium and heavy-duty trucks, diesel rail, crude tanker and containership. The provided list reveals the main directions where Green Technology development is aimed at within the scope of international policies.

Green Technology is a broad term, touching various industries. It is, however, obvious that the main focus of Green Technology is on energy and pollution & waste management (Kwakwa, 2018). While promoting the Green Technology is one of the key features in stabilizing the global climate (Clarke, Edmonds, Jacoby, Pitcher H., & Reilly, 2007) and achieving the goals set in the Paris Agreement (United Nations, 2015) it is still estimated that with the current growth of Green Technology the demand for energy will outgrow the supply of clean energy, thus forcing to avoid global elimination of non-clean energy (Clarke, Edmonds, Jacoby, Pitcher H., & Reilly, 2007). To tackle this problem of lack of speed of growth, certain initiatives need to arise.

First of all, providing an internationally recognized categorization standard for Green Technologies would help to define the scope within which the initiatives are managed. Defining this scope would establish a common ground not only for instruments to encourage such efforts but also for alignment of international initiatives, as the definitions would match and thus, the political encouragement can be aligned.

Secondly, adjustments in intellectual property management to suit the needs of Green Technologies may spark a breakthrough for these technologies. On top of that – a methodology for knowledge transfer, explicitly designed for the Green Technology industry, would serve as an aid.

Lastly, as entering the Green Technology market is very complicated, as Green Technologies do not necessarily give direct benefit for the customer (Rennings, 2000) and there is a lack of knowledge about the need of such products on the market, it complicated the process of the providers to target the customer. These issues are significant for the Green Technology industries that produce high-complexity technologies for local markets. As opposed to the lower-complexity branches with opportunities to export (Binz, Gosens, Hansen, & Hansen, 2017) Therefore, it is important to solve the challenges related to the demand distribution,

especially in larger cities, where there is a supporting ecosystem to develop high-complexity technologies.

The Green Technology Defining Feature Research Methodology

The research aims at defining which of the factors, found in the relevant literature, that define Green Technology are the most important. The research is carried out as follows:

1. Research methods are selected;
2. A set of respondents is selected;
3. Green Technology definition components are selected for ranking;
4. A questionnaire is formed to obtain the information;
5. The questionnaire is published and filled by the respondents;
6. Obtained data is processed to draw conclusions.

Objects can be ranked based on two features – relevance and importance. This research is executed by acquiring the data through a questionnaire and defining the relevance of the components within the set. Relevance-based ranking models are used to provide a ranked list. To achieve this, objects are given weights that define their rank (Liu, 2011).

The width of the representative set is formed according to the precise requirements (Paniotto & Maksimenko, 1982) and is calculated based on this equation:

$$n = \frac{1}{\Delta^2 + \frac{1}{N}} \quad (1)$$

here: n – width of the set; Δ - set tolerance (due to the discrepancy of the set it is set to $\Delta=0,1$); N – the overall amount of objects. It was identified that there are currently 56 Green Technology companies in Lithuania.

$$n = \frac{1}{(0,1)^2 + \frac{1}{56}} = 35.89 \approx 36$$

Additionally, two definitions of the Green Technology are assessed – one representing the applied perspective, the other one – scientific. This is done to define which of these viewpoints are closer to the respondents.

Data processing is done after collecting the respondent answers. The ranking (1 to 6) is transformed into weights. In this case, the total amount of points that a respondent can give is made equal to 1. Therefore, the maximum amount of points equals to $\sum_{i=1}^n x_i$, where $n=6$. Therefore, the weight of one point is:

$$a = \frac{1}{\sum_{i=1}^n x_i} = \frac{1}{21} = 0.0476 \quad (2)$$

Converting the rank to weights the values are transformed and the weight y of the priority p is

$$y = ((n + 1) - p) \cdot a.$$

The Results of the Survey

During this research, the questionnaire was sent to all companies in Lithuania, that are identified as working in the field of Green Technology. Representatives from 41 out of 56 of these companies have responded with their input. For the first question, the companies were asked to rank what the most important factor in describing Green Technologies was, with the following options:

- Ans1. Innovative products or services;
- Ans2. Market competitiveness;
- Ans3. Environmental impact;
- Ans4. Life-cycle stage, where it created additional value;
- Ans5. Economical/ecological need for the technology;
- Ans6. The influence of the technology on the business processes of the organization.

The weighted answers of the respondents are presented in Table 1.

Table 1. The weighted answers of the respondents to the first question

Resp.	Weights					
	Ans1	Ans2	Ans3	Ans4	Ans5	Ans6
1	0.190	0.143	0.238	0.048	0.286	0.095
2	0.190	0.095	0.238	0.143	0.286	0.048
3	0.190	0.095	0.286	0.143	0.238	0.048
4	0.238	0.143	0.190	0.048	0.286	0.095
5	0.190	0.143	0.286	0.048	0.238	0.095
6	0.238	0.095	0.190	0.048	0.286	0.143
7	0.190	0.095	0.238	0.143	0.286	0.048
8	0.238	0.048	0.190	0.143	0.286	0.095
9	0.190	0.095	0.238	0.143	0.286	0.048
10	0.238	0.143	0.190	0.048	0.286	0.095
11	0.190	0.048	0.238	0.095	0.286	0.143
12	0.190	0.095	0.286	0.143	0.238	0.048
13	0.238	0.143	0.286	0.095	0.190	0.048
14	0.286	0.095	0.190	0.143	0.238	0.048
15	0.238	0.190	0.286	0.095	0.143	0.048
16	0.190	0.143	0.238	0.048	0.286	0.095
17	0.143	0.238	0.190	0.048	0.286	0.095
18	0.286	0.095	0.190	0.143	0.238	0.048
19	0.190	0.095	0.238	0.143	0.286	0.048
20	0.286	0.143	0.238	0.095	0.190	0.048
21	0.143	0.190	0.286	0.048	0.238	0.095
22	0.238	0.143	0.190	0.048	0.286	0.095
23	0.190	0.143	0.286	0.095	0.238	0.048
24	0.286	0.095	0.238	0.048	0.190	0.143
25	0.190	0.143	0.238	0.048	0.286	0.095
26	0.238	0.095	0.190	0.143	0.286	0.048
27	0.238	0.143	0.286	0.048	0.190	0.095
28	0.190	0.095	0.286	0.143	0.238	0.048
29	0.190	0.095	0.238	0.143	0.286	0.048
30	0.286	0.143	0.238	0.048	0.190	0.095
31	0.238	0.095	0.190	0.143	0.286	0.048
32	0.190	0.143	0.286	0.048	0.238	0.095
33	0.190	0.095	0.286	0.048	0.238	0.143
34	0.190	0.095	0.238	0.143	0.286	0.048
35	0.238	0.143	0.286	0.095	0.190	0.048

Resp.	Weights					
	Ans1	Ans2	Ans3	Ans4	Ans5	Ans6
36	0.190	0.095	0.238	0.048	0.286	0.143
37	0.286	0.095	0.238	0.143	0.190	0.048
38	0.286	0.095	0.238	0.143	0.190	0.048
39	0.190	0.238	0.095	0.048	0.286	0.143
40	0.190	0.143	0.286	0.048	0.238	0.095
41	0.190	0.143	0.238	0.095	0.286	0.048

After processing this data, the importance of each of the factors, describing Green Technology, for the respondents has been defined. The overview of this data analysis is presented in Table 2, with the three answers with highest weights highlighted in green.

Table 2. Answer importance overview for the first question

Weight mean					
Ans1	Ans2	Ans3	Ans4	Ans5	Ans6
0.217	0.123	0.238	0.092	0.250	0.077

The results show that according to the responders, the most important factor in describing Green Technology is economical or ecological need for technology. The importance of this factor stresses the main reason for the pragmatic need for innovation. At the same time, it emphasizes the importance of economical support initiatives to develop such technologies. The second most important factor – the environmental impact leads to the assumption that solving economic challenges to apply Green Technologies raises the awareness of companies to contribute to a more sustainable ecosystem. The third most important factor is identified as the innovativeness of products and services. Innovations form the basis for competitiveness on the market. Therefore, that way companies can ensure the sustainability and stability of their operations by implementing Green Technologies.

Based on the ranked priorities, it is evident that the self-awareness of the companies in creating and applying sustainable solutions is balanced with the management of financial indicators. Therefore, it can be assumed that the respondents tend to show social-awareness.

As the second question only has two possible answers, the answers are assessed directly. The results have revealed that in the opinion of respondents it is more important to assess the needs and abilities of the Green Technology industry (24 of 41 or 59% of respondents), than the regional policy (17 of 41 or 41%). It may be concluded that the market situation plays a more significant role in the development of Green Technology than regional policies related to supporting such initiatives.

As the third question also only has two possible answers, the answers are assessed directly. The results have revealed that in the opinion of respondents' Green Technology is better described as innovations that include energy saving, pollution prevention, recycling, eco-design and environmental process innovations (22 of 41 or 54%) rather than the application of the knowledge of one or more scientific fields (green chemistry, environmental monitoring, electronics, etc.) to monitor, model and sustain the natural environment and its' resources and reduce the negative

human impact for the environment (17 of 41 or 41%). It may be concluded that the current viewpoint on Green Technology is more of an industrial nature than the scientific one.

Conclusions and Suggestions

The review of the Green Technology terminology, evolution, and application aspects can be concluded that the term Green Technology is an umbrella term, describing the interaction of technology and science in creating new, environmentally friendly technologies. Application of Green Technology consists of but is not limited to eco-design, recycling, water purification, clean energy and saving of resources.

The literature review has led to a scientific discourse that revealed that the Green Technology term is described by several factors. This supports the notion that it is an umbrella term that includes technology from various fields and various application levels. It is also noted that the Green Technology term can be applied to eco-friendly technologies but it is not an absolute measure. This means that technology is considered green if the negative environmental aspect of it is significantly lower than the one from similar technologies found on the market.

For the experimental part, a list of the most important factors, describing what is important for Green Technologies was built. To obtain data, a set of respondents was also collected.

The experiment has revealed that the most important of these factors are economical/ecological need for the technology, environmental impact, innovative products, or services. Such ranking reveals a pragmatic need for innovation, the environmental awareness of companies to contribute to a sustainable ecosystem and the business need to ensure the sustainability of operations. It leads to an assumption that respondent companies show a socially responsible attitude and maturity.

It was concluded that it is more important to assess the needs and abilities of the Green Technology industry than the regional policy. Therefore, the market situation plays a more significant role in the development of Green Technology than regional policies related to supporting such initiatives. Also, Green Technology is better described as innovations that include energy saving, pollution prevention, recycling, eco-design and environmental process innovations rather than the application of the knowledge of one or more scientific fields (green chemistry, environmental monitoring, electronics, etc.) to monitor, model and sustain the natural environment and its' resources and reduce the negative human impact for the environment. It may be concluded that the current viewpoint on Green Technology is more of an industrial nature than the scientific one.

According to the obtained results, it is concluded that Green Technology management is currently serving the business needs more than the scientific ones. Therefore, there is a scientific potential. Scientific research in the field of Green Technology management may lead to a breakthrough in forming regional policy and optimizing the resources for the development of such technologies.

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REVIEW ON THE MONOGRAPH
"Macroeconomic stability of the national economy".
Author: Oleksii Lyulyov, Sumy State University, Ukraine

The issues in achieving macroeconomic stability are essential in modern macroeconomics. The understanding of the causes and features of macroeconomic stability is the core preconditions in developing the economic policy which based on macroeconomic balance (stabilisation of price, production and minimising of the unemployment rate). Noted, that the primary function of the government is providing of the economic policy which focused on eliminating the consequences of cyclical development of the world economy and economic recession, providing the lowest level of the unemployment and efficient distribution of productive forces. Besides, in the current conditions, the globalisation process provoked the appearance of the rang of determinants which have a significant impact on macroeconomic stability. These determinants justified the modernising of the approaches to macroeconomic stability management. In this case, the core goal is to analyse of the scientific and methodological approaches to provide the macroeconomic stability of the national economy, allocate the determinants which influenced on macroeconomic stability, identify the options to minimise or eliminate the negative impact of the determinants on the macroeconomic stability. The monograph "Macroeconomic stability of the national economy" devoted to the analysing of the issues above-mentioned.

The monograph determined the classification of approaches to defining the macroeconomic stability of the national economy. The author proposed to define the macroeconomic stability of the national economy as a development which characterised by the low level of the volatility of the main macroeconomic parameters concerning the target trends, dynamically stable or progressive institutional, functional and resource capacity of the economy to avoid the adverse effects of the endogenous and the exogenous transformations.

In the monograph the author developed the conceptual management framework of the national economics which orient to achieve the macroeconomic stability of the national economy through the substantiating of the essence of its basic parameters and systematically-grounding determinants (economic, political and marketing), considering their mutual influence and its influence to forecast and regulate of long-term development of the national economy, ensuring stable rates of economic growth.

Noted, that the author developed the integrated approach to estimate macroeconomic stability which based on the Pentagon concept. The developed method combined the static and cyclical components of the macroeconomic stability of the national economy. It allows estimating the conversion of the state policy for achieving the macroeconomic stability of the national economy. The findings allowed highlighting the drivers and impulses for boosting the transformation processes of the national economy. Thus, the author allocated social, political and marketing determinates of the macroeconomic stability. The gradation of the determinants allowed extending the forecast horizon and generating the scenarios for the macroeconomic processes' development corresponds to the endogenous and the exogenous changes.

In the monograph, the author explained the role of the social determinants in providing of the macroeconomic stability of the national economy. The author considered the vectors' proximity of reforms in the Ukrainian social sector and countries – new EU members and base on the principals of σ -convergence and β -convergence. It allowed identifying the trajectory of Ukrainian social reforms' for achieving the macroeconomic stability of the national economy. Under the research, the author checked the hypothesis on the linking between macroeconomic stability and social progress of the national economy. The author explained strategies (quasi-integration growth, convergent diversification, progressive growth) for implementing reforms of the national economy to achieve macroeconomic stability and social progress.

Integral assessment of the political institutions' effectiveness of the national economy allowed developing the dynamic panel model that considering the effect of the chain reaction "efficiency of the political institutions in the previous year, the level of the macroeconomic stability in the previous year, the level of the macroeconomic stability in the current year" and checking the hypothesis on convergent influence social and political determinants on the macroeconomic stability of the national economy. The authors analysed the power and impact's direction of the political stability on the macroeconomic stability, the rule of law, corruption control, the efficiency of governance, the probability of the unconstitutional political destabilisation, the ability of the government to openly pursue policies and regulatory measures, considering the people's opinion in the formation of the political institutions, accountability of the public authorities.

The existence of the linking between the perception of the country's brand by the non-residents and the macroeconomic indicators of the country's use of its brand allowed allocating and empirically confirm the hypothesis that the requirements to transform the country's brand into a dynamic marketing determinant of the macroeconomic stability growth are dominant in the country's stabilising social value behavioural models.

The author combined the traditional and modern instrument of analysis. Thus, the author used the TOPSIS method with the purpose to develop the integral indicator of social progress. The comparison and cluster analysis used for identifying the drivers of the macroeconomic stability and social progress. The author used GMM for developing the dynamic model for estimating the causal relationship between macroeconomic stability and social progress. The Fishbourne method a GMM allowed estimating the impact of political institutions efficiency on macroeconomic stability. The massive range of the statistical methods allowed confirming the hypothesis by the empirical findings.

The monograph could be useful for students, educators, scientists, experts from companies who are studying or investigating the issues on green investment.

Prof. Dr. (HP) Valentinas Navickas, Editor-in-Chief

REVIEW ON THE MONOGRAPH
"Marketing and Management of Green Investment: Theoretical Foundations, Current Challenges and Development Prospects"
Author: Tetyana Pimonenko, Sumy State University, Ukraine

The snowballing effect of the ecological issues, country's energy dependence, achieving of the indicative Sustainable Development Goals 2030 provokes to developing and implementing the practical instruments for overcoming the abovementioned issues. At the same time, the political vulnerability and macroeconomic imbalance in the country justify the allocation of government financing into the solving of the emerging cases. As the consequences, it leads to the limitation of the financial recourses on the declining of the destructive ecological impact on the environment, on the achieving of Sustainable Development Goals 2030. In this case, it is necessary to attract additional financial recourses by boosting the green investment market. The monograph "Marketing and Management of Green Investments: Theoretical Foundations, Current Challenges and Development Prospects" by the author Tetyana Pimonenko focused on the analysis of the abovementioned issues. The monograph consisted of three chapters:

1. The conceptual framework of marketing and management of the green investment.
2. The theoretical and methodological basis of the developing of marketing and management of the green investment.
3. The marketing framework of green investment under the concept of the sustainable development of the corporate sector.

In the monograph, the authors analysed the theoretical and analytical background of marketing and management of green investment at the companies considering the stakeholders' interests. The authors developed a conceptual framework of marketing and management of the green investment. It should be noted, that in the monograph, the green investments were defined as property, and intellectual values, which were directed into real and financial assets for obtaining explicit and latent economic, environmental and social effects, and were accompanied by the use of marketing instruments for the developing of green awareness among stakeholders, management practices of environmentally responsible business and institution conditions of green investing.

In the monograph, the marketing and management of green investment proposed to analyse not as isolated so as integrating the system with institutional conditions of green investing. It allowed considering causal relationships, explicit and latent channels of interaction between key stakeholders, complementary nature of the green investment, effects of flows and diffusion of management and marketing decisions in the field of green investing, obtained the synergistic effect of green investing, which was reflected in the growth of company's value.

The scientist identified the core determinants of the efficiency of marketing and management of green investment and options to increase it.

In the next part of the monograph "The theoretical and methodological basis of the developing of marketing and management of the green investment", the authors developed the instruments to estimate the convergent relationships between the volume of green investment, economic profitability of the company and ecological indicators.

In the third part of the monograph "The marketing framework of green investment under the concept of the sustainable development of the corporate sector", the authors developed the marketing concept of green investment with identifying the core instruments for promoting green investment. The traditional 4P marketing concept was transformed into 8P. The author determined the features of the 8P complex of green investment marketing, as well as the impact, image and hidden marketing strategies of green investment. The authors explained the features of greenwashing as an unfair marketing instrument to promote the green policy of the company.

The author analysed the preconditions to develop the green brand of the company with the purpose to attract additional green investment. The core parameters of green brand and methods to estimate it was analysed and compiled. The author proposed to allocate the qualitative and convergent part of the green brand. In the monograph, the author developed an approach to estimate the relationship between green investment and parts of a green brand.

It should be noted, that the distinctive feature of the monograph "Marketing and Management of Green Investments: Theoretical Foundations, Current Challenges and Development Prospects" is complexity analysis of the mechanisms required to activate the green investment market. In the monograph the authors justified all hypothesis by the significant statistical and empirical findings using the modern and traditional methods. Thus, the author used Google Trends for analysing the frequency of terms "green brand", "green investment" and "greenwashing". The Ward agglomeration hierarchical clustering, the method of principal components, correlation analysis was used with the purpose to determine the drivers for developing of marketing and management of green investment at the Ukrainian companies based on European experience. The authors used the Fully Modified Ordinary Least Square and Dynamic Ordinary Least Square Methods for estimating cointegration relationships between green investment, ecological and economics effects for companies. The greenwashing index was estimated using the PLS-PM model. The author did the empirical

justification using of the software Stata 12/SE and EViews10. It allowed doing a more firm and accurate understanding of the problem.

Noted, that for the analysis the author used the data as follows as: laws and regulatory norms on green investment; State Statistic Service of Ukraine; World Data Bank and OECD; analytical reports of Bloomberg, SolAbility and National Brand, the papers of the scientists which analysed the same issues, etc.

The monograph could be useful for students, educators, scientists, experts from companies who are studying or investigating the issues on green investment.

Assoc. prof. Jurgita Martinkiene, Head of Research and Applied Research

EXTERNAL REVIEW REPORT ON DOCTORAL DISSERTATION

„Influence of Innovation Process on the Competitiveness of the Latvian Shipbuilding Industry“

Author: Balajars Alijers, Baltic International Academy, Latvia

The topic of the doctoral dissertation is relevant both in theoretical and practical aspects. The of the doctoral dissertation maintains that the ship building and ship repair industry of Latvia needs constant improvement, increase of competitiveness in order to successfully compete with similar enterprises of other countries and regions of the world in the struggle for other customers. Referring to the conducted empirical research, the author of the dissertation clearly defines the research problem, which is formulated as following: the transformation process in the economy of Latvia has led to increase in the share of services and decrease in the level of production. However, the experience of doing business in the shipbuilding and ship repair industry in Latvia shows that these sectors can be competitive not only in the European Union countries, but at a global scale as well. Innovation is the factor of competitiveness of the industry.

The author clearly formulates the research problem of the doctoral dissertation by defining the following 2 hypotheses:

1. The method of evaluating impulse processes reveals the negative factors affecting the shipbuilding and ship repair industry in Latvia and provides forecasts of its development;
2. The use of the nonlinear interactive model of the innovation process in the ship- and boatbuilding industry in Latvia contributes to the successful development of the industry.

To test the formulated hypothetic issues, the research aim is formulated and specific objectives for reaching the aim are set. The significance of the doctoral dissertation lies in the fact that the research focuses not only on the problems of the Latvian shipbuilding and ship repair industry, but includes analysis of similar problems at a global scale.

Qualitative and quantitative research methods were used to conduct the research, to generalize and process the research data Excel Statistics software package was used along with such quantitative data processing methods as correlation analysis, regression analysis, Dubin-Watson test, other methods and process modelling. The method of logical analysis was applied to generalise and compare the theoretical statements and the empirical research findings as well as to make conclusions. The author also applies the general research methods in his thesis, such as analysis of research publications, comparison and generalization.

In the dissertation the author also defines certain limitations of the research.

The doctoral dissertation comprises of three parts: conceptual framework, analytical (analysis of the empirical results) and conclusive parts. All parts of the doctoral thesis are comprehensive, consistent and reflect the scientific-systematic approach of the research that provided preconditions for the author to achieve the following key results of the research, which have theoretical, methodological and practical implications:

1. the analysis of modelling of competitiveness determinants has been performed by separate sample groups, on a basis of innovative assessment principles;
2. the assessment of the development of the shipbuilding and ship repair industry in terms of justified effectiveness has been made; an informative map has been prepared to that purpose allowing for assessment of the interaction between competitiveness and innovations;
3. the comparative dynamic analysis of shipbuilding and ship repair industry has been performed not only within Latvia, but also at a global scale that allowed for assessment of the development trends of this industry under competitiveness and innovation conditions.
4. The nonlinear interactive model of the innovation process in the ship- and boatbuilding industry in Latvia has been proposed by the author. Taking into account risks in the industry, the model will allow developing the shipbuilding industry in Latvia.

The research findings were also presented at 9 international research conferences, published in publications that are included into the international databases EBSCOhost, SCOPUS, IC, CEEOL.

Summarising, it can be concluded that this dissertation satisfies all essential requirements for a doctoral dissertation. The dissertation is original, all research literature analysed in the thesis as well as the chosen topic is adequately systemized and generalized, the methodology of the performed research is justified and indisputable, the findings are appropriately formulated and well-defined.

I recommend giving a positive evaluation to Balajars Alijevs' doctoral dissertation with award of a doctoral degree in economic sciences.

Prof. dr. Angelė Lileikienė, Lithuania Business University of Applied Sciences

Requirements for the authors, who want to publish their articles

The founder of a scientific journal “Vadyba / Journal of Management” is Lithuania Business University of Applied Sciences. Since 2000, the journal publishes technology, social sciences and physics sciences-related articles. The main goal of the scientific journal articles and conducted research is to emphasize the problems and present possible solutions for the public and private organizations of the region. The articles can be both empirical and theoretical.

The submitted articles must be original, previously unpublished. It is prohibited to publish the articles of this journal in other publications.

General requirements

- Articles submitted to the Editorial Board must be professionally edited, without spelling, punctuation and style errors. The articles must use scientific language.
- Articles shall be written in English.
- **The article shall be up to 10 pages long. The last page should take at least half a page, i.e. about 2/3 of the page.**
- The structure of the article must have a structure of a scientific article. It must contain the following:
 1. The **title** of the article. Article’s **author, institution**, which the author is representing. **E-mail** of the author of the article.
 2. **Abstract** with the main words in the language of the article. The Abstract should briefly cover the contents of the article; specify the aspect of how the problem will be analyzed. The text of the Abstract must be clear and concise. **The Abstract must contain at least 2000 characters.**
 3. **Keywords** – these are the words that express the most important features of the topic. Five or six keywords of the article must be included in the Lithuanian National M. Mazvydas library records of authoritative names and subjects. It is possible to check if the keyword is included in this list in the website of the library: http://aleph.library.lt/F/UYSMKM4NY8C9H33SP6PV8F2585NQU59CEEBJVCYCA3HUQNQCR5-31681?func=find-b-0&local_base=LBT10, by specifying the “topic, subject (lit)” (in Lithuanian) and “topic, subject (eng)” (in English) in the search field.
 4. **Introduction**, which formulates the purpose of the scientific study, discusses the question of the study, its novelty and degree of research, specifies the object of the study, objectives and methods.
 5. **Analysis – article material**. The sub-sections of the article are *unnumbered*.
 6. **Conclusions**. *Unnumbered*.
 7. **References**. *Unnumbered*. References in the body of the article should be cited in parenthesis by indicating the surnames of the authors and year, e.g. (Cooper 1994), (Cleland J.; Kaufmann, G. 1998). If

an internet source does not have an author, the link is placed only in the main text in parenthesis. Letters “p” and “pp” are not written next to the pages.

8. Examples of referencing:

Books

Valackienė, A. (2005). *Crisis Management and Decision-making*. Technology, Kaunas.
Berger, P. L., Luckmann, Th. (1999). *The Social Construction of Reality*. Pradai, Vilnius.

Journal articles

Boyle, T. (2003). Design principles for authoring dynamic, reusable learning objects. *Australian Journal of Educational Technology*, 19(1), 46–58.

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Statistical information and web resources

Lithuanian Emigration Statistics. (2009). Statistics Lithuania to the Government of the Republic of Lithuania. [Retrieved February 16, 2009], <<http://www.stat.gov.lt/lt/news/view/?id=6819&PHPSESSID=5b1f3c1064f99d8baf757cde1e135bc0>>.

9. **Summary with the keywords** is written in English. **The summary should include at least 3000 characters.**
10. Short CV of the authors, which consists of: name, surname of the authors. Degree. Work. Occupation. Research direction. Address. Telephone. Other information about the author. The author CV must include **up to 3000 characters**.

Requirements for the outline and layout of the article

- The articles must be written in MS Word A4 pages.
- Document margins: top – 2 cm, bottom – 2 cm, left – 2 cm and right – 2 cm.
- Full text: in lowercase letters, aligned to both margins, size – 10 pt, font – Times New Roman, first line of the paragraph indented by 0.5 cm.
- Title of the article: in capital letters, left alignment, size – 14 pt., **Bold**.
- Author’s name, surname: in lowercase letters, left alignment, size – 12 pt., **Bold**.
- Institution name: in lowercase letters, left alignment, 10 pt., *Italic*.
- E-mail: lowercase letters, left alignment, 10 pt., *Italic*.
- Abstracts: text size – 8 pt, title – 10 pt, **Bold**. A full stop is not put after the last main word.

- Section names: lowercase letters, left alignment, size – 11 pt., **Bold**.
- Word *Literature* – 10 pt, literature list – 9 pt.
- **Figures** and **diagrams** must be clear, schemes – grouped into a single object.

Tables and **schemes** have to be numbered and titled.

1. Table titles are written above the table in the centre.
2. Figure names are written under the figure in the centre.

The text will not be further edited.

NOTE. It is obligatory to use the prepared template for the article.

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