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ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES

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Dear readers,

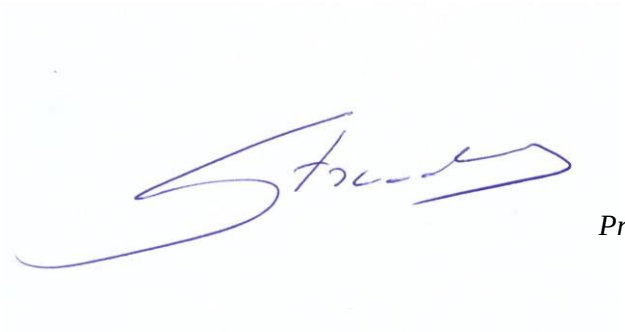
Acceleration of sustainable economic development could be achieved by engaging all previously idle or underused resources. Here creativity, creative industries, culture and cultural undertakings have emerged as driving forces of local, regional and global sustainable development. Creative industries cluster, foster entrepreneurship, is engaged in technology transfer process. Strengthening of creative industries inevitably impacts economic growth, instills entrepreneurial spirit, accelerates technology transfer process. Creative industries are a new and rapidly developing area of activity in Lithuania – a tendency, which echoes phenomenon observed in the European and other countries.

For the discussing the issues of creative industries development the International scientific conference "Creative Industries and Sustainable Development: Bridging theory and Practice" was organized, which was held on June 25-26 of year 2015 in Vilnius. The conference was jointly organized by the Vilnius Gediminas Technical University and National Association of Creative and Cultural Industries. Many participants from over the world (UK, Denmark, China, Russia, Italy, Turkey, Poland and etc.) presented their findings and discussed the sustainable development of the creative industries. The selected articles from the conference are presented in this issue.

As chairman of the conference I would like to deliver my sincere thanks to all the participants, and, especially keynote speakers of the conference: Prof. Joseph Lampel - Eddie Davies - Professor of Enterprise and Innovation Management at Manchester Business, Dr. Marina Guo - a cultural entrepreneur, academic and strategist in cultural creative industries, Head of Arts Management & Director of International Programs at School of Creative Studies, Shanghai Theatre Academy and Vice Director of John Howkins Research Centre on Creative Economy, Dmitry Milkov - creative director of the largest creative cluster in St. Petersburg: Creative Space TKACHI. Henning Sejer Jakobsen - Open Innovation Development expert, Inventor and Idea Developer at Danish Technological Institute.

I wish you a lot of reading pleasure and inspirations for your new ideas.

Sincerely,



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CONTRIBUTIONS OF SUSTAINABLE START-UP ECOSYSTEM TO DYNAMICS OF START-UP COMPANIES: THE CASE OF LITHUANIA

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Abstract. The purpose of the present study is to evaluate contributions of sustainable start-up ecosystems to the development and dynamics of start-up companies. To illustrate **how the sustainability of start-up ecosystems affects the development trends of start-up companies** the case of Lithuania is analysed. Lithuania is chosen because of its experience of dynamically transforming its start-up ecosystem; the case is useful for both further scientific analysis of start-up ecosystems and application of the Lithuanian experience to other countries. Cooperation and networking among companies have been important research topics for many decades. In the second half of the 20th century the network expansion evolved due to the development of social, economic, political and technological systems (Iansiti and Levien, 2004); however, companies faced new challenges in adapting to the rapidly changing environment, creating synergies from cooperation in ecosystems and sustainably strengthening their competitive advantage. In the early 1990s the term 'business ecosystem' was introduced into popular management parlance by James F. Moore (1993). Moore suggested an ecological approach to management, where modern business is viewed not only as a member of a single industry, but rather a part of a business ecosystem that crosses a variety of industries. The present research is centred on effects of this business ecosystem on the dynamics of start-ups. Given the multifactor and trans-disciplinary nature of start-up ecosystems, the triangulation method of combining the scientific literature overview, semi-structured qualitative interviews and quantitative survey method is chosen: the quantitative survey was designed to reveal the general profile of a start-up company and its' approach towards start-up ecosystems, while qualitative semi-structured expert interviews were conducted to acknowledge why and how start-up ecosystem influences the development of companies. **The research question** is how sustainability of start-up ecosystems affects the development patterns of start-up companies. This should help other countries such as Georgia, Moldova, Bulgaria or Romania to avoid of possible mistakes in enhancing their own start-up ecosystems.

Keywords: sustainability, start-ups, start-up ecosystems, development and dynamics of start-ups.

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1. Introduction

Before starting to scrutinize effects of business ecosystems on the dynamics of start-ups, a clear description of a business ecosystem should be presented to better understand the context of this multi-factor phenomenon and to identify the main dimensions of the business ecosystem. Relying on Moore (1996, p. 26) a business ecosystem could be understood as 'an economic community supported by a foundation of interacting organizations and individuals -- the organisms of the business world. This economic community produces goods and services of value to customers, who are themselves members of the ecosystem. The member organizations also include suppliers, lead producers, competitors, and other stakeholders'. The author admits that over time they co-evolve their capabilities and roles, and tend to align themselves with the directions set by leading organizations. These organizations set common visions and strategies and focus on the synergy between various actors in terms of investments and mutual supportive roles (Moore1996).

Iansiti and Levien (2004) compare business ecosystems with biological ecosystems: being similar to business ecosystems, biological ecosystems are characterized by a large number of interconnected participants who depend on each other because of their common expectation of mutual effectiveness and survival. Authors acknowledge the difference between healthy and unhealthy ecosystems. Within a healthy ecosystem individuals thrive, while in the opposite case it might have a negative impact on each participant. Moore (2006) emphasizes the role of business ecosystems as a main driver of innovations via co-evolving innovative combinations of technologies that solve important consumer problems. It is in line with arguments of Cohen et al (2000) that business ecosystems are setting the pattern of launching new technologies that have emerged from Silicon Valley. According to Cohen et al (2000) Silicon Valley transformed itself into more than just an area of high-tech firms and scientific research. It has become the centre of a new kind of business ecosystem together merging social institutions, market institutions and 'ultra-high-skilled' people to form a bigger and better system.

Chesbrough (2003) emphasized the role of open innovation, as it posits efforts made by different kinds of interrelated parties. These efforts let smaller and younger companies compete with technologically and financially better established companies and introduce their products and services to markets in more efficient ways. According to Startup Genome Research (2012), Silicon Valley remains the leading ecosystem in the world, but there are new ecosystems being formed all over the word: such cities as Tel Aviv, Los Angeles, Seattle, London, Paris or Berlin are called start-up ecosystems due to a high ratio of new technology-based companies established there. To summarize the information, related to leading start-up ecosystems, there could be the model of start-up ecosystem dimensions developed, based on Cohen et al. (2000).

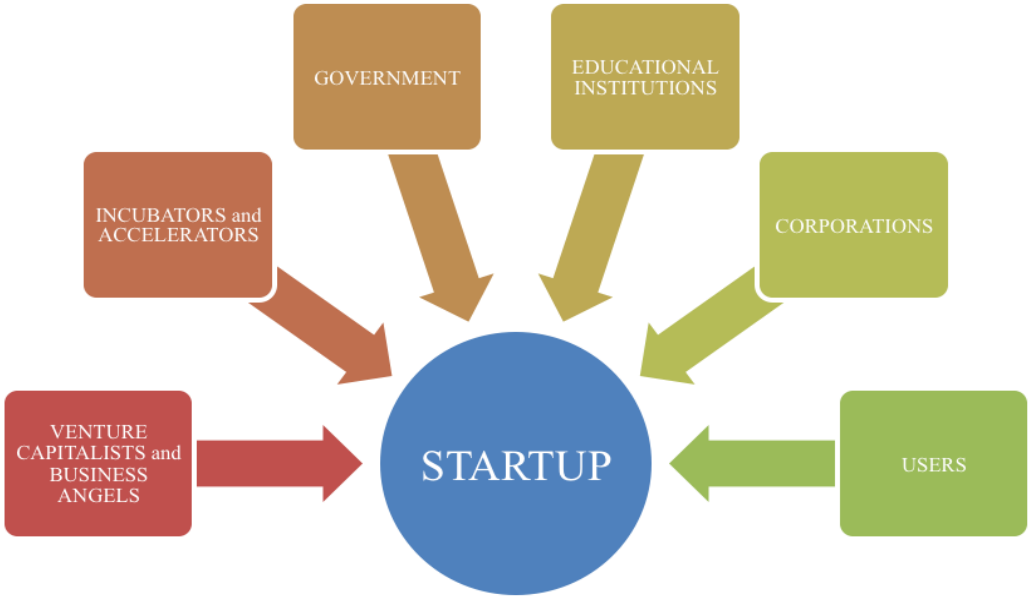

Fig. 1 Dimensions of start-up ecosystem

Source: created by authors, based on Cohen et al, 2000, p. 13-31

Having the model of start-up ecosystems designed, it is important to define the concept of a start-up company. Steve Blank (2012, p. xvii), serial-entrepreneur and academician suggests that: 'a start-up company is a temporary organization in search of a scalable, repeatable, profitable business model'. First of all, a start-up company is at its temporary stage. It is expected to move to the next phase: either to become a large, financially independent business, start selling shares publicly or to be acquired by larger corporations. Secondly, a start-up is at the search of a business model and is distinctively different from other small businesses that are operating in mature markets. According to Osterwalder *et al*. (2005), a business model includes 4 parts: the customer value proposition, the profit formula, key resources and key processes. Apart from focusing on what is a product?, who is a customer? and how to make money, new ventures often do not foresee real market opportunities or the best way to address them. They are forced to adapt and modify their original idea over time (McGrath and Macmillan 1995). According to a classic statement of Drucker (1985), even when a new venture does succeed, most of the time it is in a different market than it originally intended to be, with products and services that were not planned to produce and with different targeted customers. Finally, a start-up should seek to become scalable and repeatable.

Graham (2012) adds that in order to grow fast, start-up companies have to create what the market needs and then serve the targeted market. Scalability can be reached because, in general, such companies have a cost structure with a relatively high proportion of fixed cost and relatively low variable cost (Jullien 2006). Often, most of the costs arise from managing databases, while additional transactions within the capacity of database usually hardly cause any additional cost. Summing up, the definition of Steve Blank differentiates a start-up from traditional business in several areas, such as a very high potential growth rate, innovative business model and importance of technology.

Ries (2011, p. 17) states that a start-up is a human institution designed to deliver a new product or service under conditions of extreme uncertainty. Start-up companies are facing many bureaucratic, legal and other institutional processes such as hiring employees, coordinating their activities or fulfilling other legal requirements. Although most of the time start-up company has only one product, the value of it is created by people and all organizations that build it. In this way, the importance of a team in a start-up should be highlighted. Another important part that Ries (2010) adds to the definition is innovation. Ries (2010) claims that innovation is critical to a company's success, but having in mind that innovation is inherently risky, start-ups have to decide what degree of innovation they are capable of and willing to achieve. In general start-ups use already existing technologies in a new context, develop a new business model or bring a product or a service to new location or set of customers that was not addressed before. Finally, there is one last important part of Ries' (2010) definition: the context in which innovation happens. The author identifies that a start-up works under conditions of extreme uncertainty.

The establishment of a new business with its business model, pricing, target customer, and specific product may, under many circumstances, be an attractive economic investment as it mainly depends on decent execution. The success of such kind of business can be modelled. However, start-ups operate in situations that are not clear enough and the risk of a project is not known, so the possibility to get a financial loan from a bank is very low. There are other possibilities to finance a start-up such as venture capital investments and business angel investors. Start-ups that receive financial investment and become financially independent create globally well-known success stories, such as eBay, Amazon.com, Google or Facebook.

2. The role of Government in ecosystem

One central stakeholder that can attempt to influence firms' development is government (Brooksbank 2008; Massey 2006; Tunčikienė, Drejeris 2015; Giriūnas, Mackevičius 2014). From the perspective of government, boosting economic development is one of the essential goals of every single government around the globe. In order to understand the need of governmental intervention in small and medium-sized enterprises, it was globally recognized that nearly 80% of economic growth in the world came from SMEs. In total 99% of all business in North America and Europe belong to SMEs (Adam *et al*. 1999). However, SMEs do not all equally contribute to the growth of economies.

According to Birch (1987) and Acs (2008), the most significant contributions to the growth of economies are achieved by fast-growing firms, often referred as high-potential firms (Senyard *et al.* 2008). According to Shane (2009), within public funding more resources should be accorded to high-growth companies. In addition, Heirmand and Clarysse (2004) argue that governments take a stronger focus on supporting knowledge-intensive, research-based and high-technology-based start-ups. Such firms essentially contribute to bringing new technologies to the market (Chirstensen 1997). However, limited understanding remains surrounding how and which government programs and policies are most appropriate for supporting and promoting innovative and growth orientated start-ups (Audretsch 2004). Yet, not all governments struggle in understanding the most useful ways to support start-ups. According to Curran and Storey (2002), UK's government formatted direct government advice services and government subsidising existing sources of formal support in order to support new firms, to promote their growth in areas such as skills development in formal and non-formal educational institutions, obtaining resources, and identifying new business opportunities. Bennet and Robson (2003) identified areas where governments are able to support fresh businesses: business strategy, management organization, marketing and market research, public relations, product or service design, new technologies and computer services, personnel and recruitment, taxation, finance.

Governmental policies have increasingly focused on boosting entrepreneurship generally and firm growth-specifically (Huggins and Williams 2009; Mcquaid 2002). However, Bennet and Robson (2003) highlight, that as government provides business support equally to all firms, including competitors between each other, it is unlikely to provide them with resources that lead to ongoing competitive advantage. After understanding the need of support for small and new businesses, governments around the world developed various programs to contribute to the development of start-ups, e.g. the Small Business and Innovation Program in the USA, the Vinnova programs in Sweden, the Commercial Ready Program in Australia and the Multimedia Super Corridor in Malaysia (Kropp, Zolin 2005).

In general, less developed countries cannot afford the needed support for newly established firms. That is why the European Union prepared the JEREMIE Holding Fund (Joint European Resources for Micro to Medium Enterprises), which provides the opportunity for EU member states through their national or regional managing authorities to use part of their EU structural funds to finance small and medium-sized enterprises by means of equity, loans or guarantees. The JEREMIE Holding Fund provides various ways of support, such as guarantees, co-guarantees and counter guarantees, equity guarantees, loans, securitization, venture capital, Business Angel Matching Funds, and investments in technology transfer funds to financial intermediaries. As head of JEREMIE mandates & external vehicle Maria LEANDER states, this fund particularly provides the added-value in the lesser-developed regions, where there is the need for capacity-building initiatives and transfer of know-how between local institutions. For instance, Lithuania being held as one of the most promising countries within less-developed EU members, received the second biggest part of money provided by JEREMIE fund with the total 210 million of euros over 6 years starting from 2007 until 2013 (European Investment Fund 2007).

3. Research Methodology

3.1. Quantitative analysis

The main objective of quantitative analysis was to find out what are the features of Lithuanian start-up companies, their CEOs' and start-ups' approach towards dimensions of the Lithuanian start-up ecosystem. The analysis is to help to identify characteristics of CEOs' start-up companies and to understand CEOs' approach towards dimensions of the Lithuanian start-up ecosystem regarding CEO gender; how start-up is funded; what is the location of start-up headquarter and the number of start-ups CEOs worked in before. It was decided to use a method of survey where most of the questions were closed-ended. However, to perceive an ingenious opinion from respondents about main pros and cons of the Lithuanian start-up ecosystem, open-ended questions were used. The collected close-ended answers were analysed with SPSS software, which helps to quickly and beneficially process large amounts of data, while open-ended questions were analysed by highlighting main advantages and disadvantages stated by the respondents. The survey was conducted during a period of 3 weeks from the 10th of April 2014 to the 30th of April 2014. 63 CEOs fully completed the questionnaire. The survey

was conducted online and the link was distributed directly via e-mail to respondents. The sample size reads 63, which was calculated using the formula provided below (Dikčius 2006):

$$n = \frac{p(1-p)}{\left(\frac{e}{z}\right)^2 + \frac{p(1-p)}{N}}$$

Variables in the formula stand for:

n – sample size

N – population size. According to the database of Lithuanian governmental institutions responsible for facilitating business development in Lithuania there are 170 start-up companies.

p – 0.5, as the proportion of population is not known.

e – Margin of error reads 8,5%.

z – z-score is 1,64 with 90% level of confidence.

The questionnaire was divided into three groups of questions: demographic, behavioural and scale questions. Firstly, respondents were asked to answer 8 demographic questions in order to understand the main characteristics of the CEO and features of the start-up company he/she is running. The first five questions were presented in order to find out the main characteristics of CEOs. Questions respectively starting from one to five were to identify CEOs' gender, age, educational background and the number of start-ups the CEOs had worked in before. The 1st, 3rd and 4th questions were composed using nominal scale, the 2nd and 5th – ordinal scale. The last three demographic questions were used to generalize the picture of start-ups that operate in the Lithuanian ecosystem. These questions included the number of team members in a start-up, the location of the main headquarters and the way start-up is funded. The 6th question was composed using ordinal scale, the 7th and 8th – nominal. The 9th question was formatted by using the ordinal scale, and was presented in order to understand the main reasons why an entrepreneur established a start-up. Questions 10-12 were developed by using the nominal scale to determine frequencies of CEOs' participation in start-ups-related events in Lithuania and foreign countries as well as to see the frequency of CEOs' communication within start-up community members. Questions 13-21 were developed using a seven-point Likert scale (one meaning 'strongly disagree', seven meaning 'strongly agree' and four - neutral); the chosen variables were provided to evaluate each start-up ecosystem's dimension. These statements were:

1. A great team is more important than a great idea.
2. Working in co-working spaces (Rupert, Innobase, HUB, others) are more beneficial than working alone.
3. Participation in different events for start-ups is beneficial for its development.
4. Participation in accelerators' programs (StartupHighway, Startup.lt, others) are beneficial for start-up development.
5. I am aware of possibilities to raise funding from investors (VC and Angels) in Lithuania.
6. I am familiar with possibilities to raise money using crow-funding platforms.
7. The preparation of start-up talents in educational institutions is satisfying needs of the market.
8. The Lithuanian mass community generally knows about start-ups.
9. Governmental institutions (Enterprise Lithuania, Invest Lithuania, others) are positively influencing development of the Lithuanian Start-up Ecosystem.

Finally, questions 22 & 23 were open-ended to identify the main advantages and disadvantages of the Lithuanian start-up ecosystem from the perspective of each CEO.

3.2. Qualitative analysis

Using a qualitative research method, it was intended to find out how and why dimensions of the Lithuanian start-up ecosystem influence the development of a start-up company from the perspective of experts as well as to compare their opinion regarding essential issues in the start-up ecosystem (the role of a team in a start-up company; the preparation of start-up talents in Lithuania; the importance of external stakeholders' network, of external financing for a start-up, and of involvement in the ecosystem). A qualitative approach is appropriate to use in organizational research when the goal is to better understand complex issues and processes that would not

be apparent in survey responses. Detailed qualitative data can only be obtained by getting physically and psychologically closer to the phenomenon through in-depth interviews. This conclusion was also confirmed after reviewing other studies made on the start-up ecosystem-related dimensions. In order to identify 'how' and 'why' the main dimensions of ecosystem influence the development of a start-up company, a semi-structured interview was developed.

This method is flexible, because there is always the possibility to change questions according the flow of interview and adapt to a situation. The questionnaire, prepared in advance, was used to collect the necessary data from respondents. However, respondents could talk freely and add anything they want to their answers without any interruption, and their anonymity was ensured. Experts were chosen with non-probability convenience sampling method. The main advantage of this method is an easier access and availability compared to probability sampling methods. Since, the amount of successful start-ups in the Lithuanian ecosystem is relatively small, a small sample was used: 5 experts were enough to represent successful start-ups in Lithuania. An expert is a status that is given to person by a researcher, according to the field of a study. An expert has a lot of knowledge and experience in the field, which is not available for everybody, he/she is able to share it and contribute to a study. He is the main source of information. Experts were chosen by several categories:

1. Experts are CEO's (Chief Executive Officers) of start-ups.
2. Experts have at least 4 years of experience in start-up ecosystems.
3. Experts have at least a Bachelor degree.

Five respondents, matching requirements of the expertise, were interviewed over a period of ten days, from 10th of April 2014 to 20th of April 2014. Two experts were questioned via email and three experts were asked to participate in face-to-face interviews.

The questionnaire contained 20 questions. All questions were open-ended in order to let experts talk freely and express their opinion as much as they wanted. Questions were provided in chronological order touching on all dimensions of a start-up ecosystem. The length of an interview was 20-50 minutes. Comparative analysis was used in order to summarize and compare results. The main goal of this type of analysis is to evaluate respondent's perception on the topic, according to his/her experience.

4. Results: Effects of the start-up ecosystem on the development of Lithuanian start-ups

To better interpret results of the present study, first of all the demographic data is explained. 82,5% of all start-ups' CEOs were males and 17.5% were females (the total number reads 63 respondents). Most of the CEOs belonged to the 28 to 30 year age range with 30.16% (n=19). Another two significant distribution groups referred to respondents of the age of 25-27 years with 23.81% (n=15), respondents belonging to the age group of 30 years and older (23.81%; n=15). 14.29% (n=9) of all correspondents where between 22 and 24 years old, while the rest of CEOs declared belonging to the 18-21 years age interval with 7.94% (n=5). The biggest part of all respondents had business or economics-based educational background 33.3% (n=21), following by IT & programming – 25.4% (n=16) and art, design and architecture – 15.9% (n=10). Other educational backgrounds that were stated by correspondents were engineering, law, computer science (respectively making 9.5% (n=6), 4.8% (n=3), 3.2% (n=2) and 7.9% (n=5)). 58.7% (n=37) of all respondents marked that it is their first start-up company, while 12% (n=8) stated that they had worked in 1 start-up company before. 20.6% (n=13) of all CEOs had participated in 2 start-ups before becoming CEOs in the current company and 7.9% (n=5) of respondents indicated that they worked in 3 start-ups before. None of respondents marked that they had worked in 4 or more start-ups before.

While summarising respondents' individual characteristics it gets clearer that a typical start-up CEO is a male from the age interval of 28-30 years, who has an educational degree in the fields of business and/or economics or IT & programming and it is his first start-up where he is CEO. Out of 63 respondents, 54% (n=34) marked Vilnius as the location of their main headquarters. Other locations were in Kaunas, Klaipėda, Šiauliai, other Lithuanian cities and foreign countries, respectively reading 20,6% (n=13), 9.5% (n=6), 3.2% (n=2), 4.8% (n=3) and 7.9% (n=5) of total respondents. Answers regarding the number of team members a CEO has in his/her start-up company, 41.3% (n=26) of all respondents stated having from 1 to 3 employees; 36.5% (n=23) had from 4 to

7 team members; 12.7% (n=8) had from 8 to 11 employees and 9.5% (n=6) possessed more than 12 employees in their team. According to the survey, 60,3% (n=38) of all respondents noted that their start-up company was self-funded, the second most marked way of funding with 22.2% (n=14) was seed round/angel investment, while 7.9% (n=5) noted other funding ways; 6.3% (n=4) stated that they were funded by series 'A' and only 3.2% (n=2) indicated crowd-funded as their means of funding. A typical start-up company, according to observed characteristics, is located in Vilnius city, has from 1 to 7 members, and is self-funded.

A further analysis was carried out to understand general tendencies of start-up CEOs' participation in start-up related events and communication within the start-up network. Many respondents, 42,9% (n=27), stated that they attended start-up related events in Lithuania several times a year, while a bit lesser part of CEOs, 34.9% (n=22), noted that they participated in events once a month. 17.5% (n=11) of all respondents indicated that they took part in start-up related events once per week. Only 1.6% (n=1) mentioned that they participated more than once per week; 3.2% (n=2) claimed that they did not attend any start-up related events at all. Results are visible in the Figure below. According to the Pearson chi-square test it appears that there is a significant difference among CEOs whose start-up is located in different cities and attendance in start-up related events in Lithuania, because Sig. (2-tailed) = 0.006 and is less than 0.10. In addition, according to the same Pearson chi-square test, SPSS results showed that there was a significant difference among CEOs whose start-up was funded in a specific way and attendance in start-up related events in Lithuania, because Sig. (2-tailed) = 0.078 and is less than 0.10.

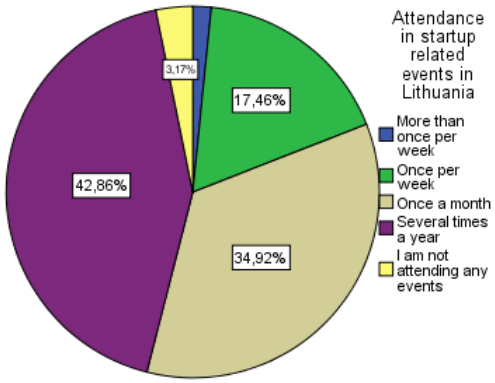

Fig 2. Division of respondents, based on the attendance in start-up related events in Lithuania

Source: prepared by authors, according to research results

The analysis of participation in start-up related events in foreign countries shows that the biggest part of respondents, 46% (n=29), attend events in foreign countries once a year, while 38.1% (n=24) mentioned that they hadn't been to any start-up events outside Lithuania. A smaller group of respondents attended start-up events in foreign countries once a month – 11.1% (n=7) and, surprisingly, 4.8% (n=3) of all respondents stated, that they attended start-up related events more than once a month. Results are presented in the Figure 3. Furthermore, while using the Pearson chi-square test, results showed that there was a significant difference regarding the attendance in start-up related events in foreign countries, based on the way CEOs start-ups were funded, because Sig. (2-tailed) = 0.013 and is lower than 0.10. In addition the Pearson chi-square test indicates that there is a significant difference among CEOs gender regarding the attendance in start-up related events in foreign country, because Sig. (2-tailed) = 0.062 and is lower than 0.10.

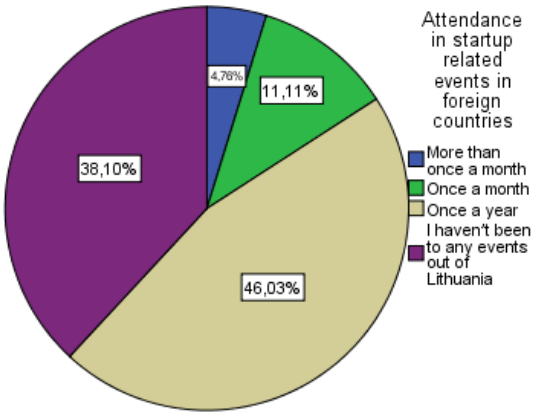

Fig 3. Division of respondents, based on the attendance in start-up related events in foreign countries
Source: prepared by authors, according to research results

Apart from the understanding of start-up CEOs' intentions to participate in start-up related events, there is the need to understand the frequency of communication within start-up community members in order to find the coherence of the start-up network. There was no significant consensus among CEOs' choices. However, the biggest part, 20.6% (n=13), claimed that they communicated with other start-ups once per week, three sections – 'everyday', 'more than once per week' and 'once a month' were selected equally by 19% (n=12) respondents each. Less active members of the Lithuanian start-up community, 15.9% (n=10), marked that they communicated only several times a year, while only 6.3% (n=4) claimed that they did not communicate with other members at all. Results are visible in the Figure 4.

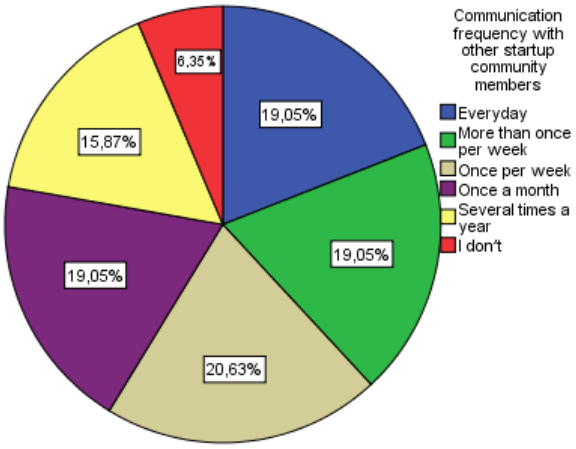

Fig 4. Division of respondents, based on the communication frequency with other star-up community members

Source: prepared by authors, according to research results

According to the gathered and analysed data, there is a tendency among start-ups' CEOs to participate in start-up related events in Lithuania more frequently than several times per year. While taking higher costs of participating in start-up-related events abroad into account, the tendency to participate is slightly lower. However, more than half of all respondents tend to visit events outside Lithuania. Looking into the need of communication with other start-up community members, it is safe to say, that only an insignificant part of CEOs tend to not communicate with other members, while more than 80% of all respondents support the need of communication with other start-up community members.

The further analysis was taken into consideration to perceive respondents' decision to establish a start-up company. The figure 5 represents motives of CEOs to start a company by their mean rank. The most popular

reason of establishing company among CEOs was ‘to create an innovative problem solution’ with the highest average rank of 1.97. ‘To express themselves’ and ‘to get financial benefits’ were selected equally with the same average rank of 2.46. The least important motive for CEOs was ‘to become a leading company in the area’ with the average rank of 3.11.

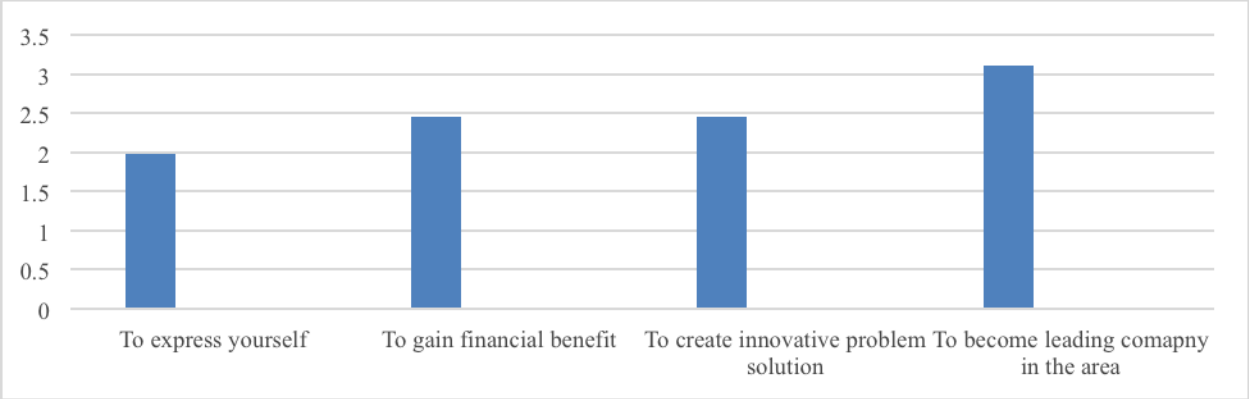

Fig 5. Average ranks of motives to establish a start-up company

Source: prepared by authors, according to research results

The 7-point Likert scale was used in order to measure the respondents’ opinion about main fields of the start-up ecosystem. As the observation shows, respondents’ opinions matched statements: ‘A great team is more important than a great idea’ and ‘Governmental institutions (Enterprise Lithuania, Invest Lithuania, others) are positively influencing the development of the Lithuanian Start-up Ecosystem’ where the means were 5.68 and 5.67 respectively. Furthermore, there was a general tendency among respondents regarding statements ‘The development of start-up talents in educational institutions is satisfying the needs of the market’ and ‘the Lithuanian mass-community generally knows about start-ups', where the means read 3.00 and 3.49 respectively. According to the previously defined 7-point Likert scale’s notations, where one stands for ‘totally disagree’ and seven for ‘totally agree’, respondents highlighted two main existing problems of the Lithuanian start-up ecosystem (Table 1).

Table 1. The means of statements to define the Lithuanian start-up ecosystem

Statement	Mean
A great team is more important than a great idea.	5,68
Working in co-working spaces (Rupert, Innobase, HUB, others) are more beneficial than working alone.	4,60
Participation in different events for start-ups is beneficial for start-up development	5,17
Participation in accelerators’ programs (StartupHighway, Startup.lt, others) is beneficial for start-up development	5,22
I am aware of possibilities to raise funds from investors (VC and Angels) in Lithuania.	5,13
I am familiar with possibilities to raise money using crow-funding platforms.	4,78
The preparation of start-up talents in educational institutions is satisfying needs of the market.	3,00
The Lithuanian mass-community generally knows about start-ups.	3,49
Governmental institutions (Enterprise Lithuania, Invest Lithuania, others) are positively influencing the development of the Lithuanian Start-up Ecosystem	5,67

Source: prepared by authors, according to research results

The Spearman Test was applied in order to see possible correlations between the number of previous experiences of CEOs, while taking part in different start-ups, and different statements about the Lithuanian start-up ecosystem. The Spearman Test showed there was a weak negative correlation between the statement ‘Governmental institutions (Enterprise Lithuania, Invest Lithuania, others) are positively influencing the development of the Lithuanian Start-up Ecosystem’ and the number of start-ups a CEO worked in before, because Sig. (2-tailed) was =0.057, which is less than 0.10. The correlation coefficient was = -0.241. In line with one-way ANOVA test, 4 tests were implemented as following: Bonferroni, Scheffe, Dunnett’s T3 and Games-Howell. However, they showed that there were no differences regarding the number of start-ups a CEO worked

in before and all the statements. Consequently, it is assumed that CEOs who worked in more than one start-up have less positive attitude regarding Lithuanian governmental institutions.

In later stages of the study it was intended to identify if there were any significant differences among CEOs' opinions about provided statements, according to the type of funding for their start-ups. The Pearson Chi-square test was implemented to check the difference. According to SPSS calculations there were no significant differences among the funding type of a start-up and opinions regarding all the statements. However, there was the need to implement Kendall tau-B correlation test, in order to see if there is any correlation within statements defining the Lithuanian start-up ecosystem's dynamics. The ranking data was transformed into ordinal data to be able to imply the correlation test.

As Kendall tau-B test showed there was a week positive correlation between statements 'Great team is more important than a great idea' and statements respectively 'Participation in different events for start-ups is beneficial for its development', 'Participation in accelerators' programs (StartupHighway, Startup.lt, others) are beneficial for start-up development' and 'Governmental institutions (Enterprise Lithuania, Invest Lithuania, others) positively influence the development of the Lithuanian Start-up Ecosystem', because Sig. (2-tailed) were respectively =0.037; =0.026 and =0.019 which are less than 0.10. Correlation coefficients were =0.264; =0.281 and =0.295. In addition, there was a medium positive correlation within statements 'A great team is more important than a great idea' and 'Working in co-working spaces (Rupert, Innobase, HUB, others) are more beneficial than working alone', because Sig. (2-tailed) was =0.00002 which are less than 0.10. The correlation coefficients was =0.556. It can be stated that CEOs who promoted the team's value more than a great idea were more positively disposed towards participation in start-up related events, acceleration programs, and especially appreciated the ability to work in co-working spaces.

When another statement 'Working in co-working spaces (Rupert, Innobase, HUB, others) is more beneficial than working alone' was correlated with the rest of statements by using Kendall Tau-b test, it was observed, that there was a week positive correlation with statements 'Participation in different events for start-ups is beneficial for its development'; 'Participation in accelerators' programs (StartupHighway, Startup.lt, others) is beneficial for start-up development' and 'Governmental institutions (Enterprise Lithuania, Invest Lithuania, others) are positively influencing the development of Lithuanian Start-up Ecosystem', because Sig. (2-tailed) were respectively =0.52; =0.017 and =0.005 which were lower than 0.10. Correlation coefficients were accordingly =0.246; =0.300 and =0.351. From this observation it is possible to say, that CEOs, who admire co-working abilities more, are positive-minded towards the participation in start-up related events and governmental institutions. In addition, it was observed that CEOs, who admire the collaboration more, have negative perceptions towards the statement that 'the Lithuanian mass-community is familiar with start-ups', because Kendall Tau-b test proved, that there was a week negative correlation with these two statements, because Sig. (2-tailed) was =0.020, which is lower than 0.10 and the correlation coefficient was = -0.292.

Furthermore, the statement 'Participation in accelerators' programs (StartupHighway, Startup.lt, others) is beneficial for start-ups' development' had a week positive correlation with statements 'I am aware of possibilities to raise funding from investors (VC and Angels) in Lithuania' and 'Governmental institutions (Enterprise Lithuania, Invest Lithuania, others) are positively influencing the development of Lithuanian Start-up Ecosystem', because Sig. (2-tailed) were respectively =0.035 and =0.003, which is less than 0.10. Correlation coefficients were =0.266 and =0.372. This observation leads to the conclusion that CEOs, who are participating in accelerators' programs, tend to know more about abilities to raise funds in Lithuania and admire the work which is done by Lithuanian governmental institutions. Having all correlation tests done, it was necessary to check all the statements, which did not have any correlation, if they were significantly different. After doing one-way ANOVA test, 4 tests were implemented as following: Bonferroni, Scheffe, Dunnett's T3 and Games-Howell. Yet, no significant differences were detected regarding the statements.

Finally, respondents were asked to answer open-ended questions about main advantages and disadvantages of the Lithuanian start-up ecosystem. More than half (52%) of respondents provided answers and brought up some interesting insights about the ecosystem. First of all, 18 respondents pointed out that it is 'cheap' to work in Lithuania. The word 'cheap' was used in terms of labour cost, taxes and other business and living-related costs.

Moreover, 6 respondents were satisfied with the quality of labour and claimed that although comparatively 'cheap' Lithuanians are skilled and hardworking. Also, the growth and development of the ecosystem was seen as an advantage, respondents noted the growing number of start-up-related events and their quality, good business conditions and atmosphere, where collaboration and help to each other was seen as a priority according to 7 respondents.

The geographical location, size of the country was evaluated controversially: 7 respondents considered it as an advantage (ease of travelling, close ties to other European Union members, easy to communicate with other ecosystem members not only online, but face-to-face as well). Furthermore, the small size of the country makes it a good place to test a product (5 respondents). For example, Vinted (former manodrabužiai.lt) has been developing their product and testing it in Lithuania for 5 years. After they developed a product, its' monetization model and understanding of who were their targeted customers helped Vinted launch their platform in 6 other countries, such as United Kingdom, USA and Germany. Other 5 respondents saw a small size of a country as negative factor, because of a small number of potential customers 'in-house'.

The lack of experience in the field of technology and especially in hardware technologies, small networks of experts and mentors were some of the mentioned disadvantages. Six respondents claimed that the labour market was not skilled enough: they faced a lack of good marketing specialists, IT developers. Two respondents noted that there was a lack of IT specialists with broader skills and knowledge. Although the collaboration among other start-ups or mentors was positively evaluated, three respondents said that corporations in Lithuania did not engage small start-up companies. The governmental role in ecosystems was evaluated both positively and negatively. Some stated that there was a lack of support for young entrepreneurs and their businesses, while others disagreed and upraised the benefits that it brought to the community.

The influence of dimensions of the Lithuanian start-up ecosystem on the development of a start-up company

The second part of the research is a qualitative analysis, based on the model of dimensions of the Start-up ecosystem. The discussion in centred on: the role of a start-up team and the development of talents; benefits of intermediary organizations, such as incubators and accelerators; the collaboration between corporations, start-ups and educational institutions; the importance of external financing and the influence of governmental organizations; the development of the Lithuanian ecosystem.

The role of teams in a start-up company

According to qualitative research results on the dynamics and development conditions of start-up companies within the Lithuanian start-up ecosystem, a team plays an essential role in the development of a start-up company. According to experts, three to four people are an optimal number for a start-up company in the early development stage. They should have complementing skills and personalities: as one of the experts stated, if there were three co-founders in a start-up, one should be a leader with good entrepreneurial, managerial and organizational skills, second one with the expertise in information and communication (or other) technologies, and the third one should have the expertise in the design, marketing area. Moreover, all five respondents noted that teams for current start-ups emerged from previous projects, businesses or other previous experience together. The team members that had faced difficult situations before could trust each other and work on new ideas. What is more, all respondents agreed that without such a team, even a very good idea was not worth anything, admitting the fact that the initial idea had changed and developed a lot. Start-up companies are working under conditions of high uncertainty. To serve the future development and start-up growth, the number of team members usually increases. All respondents plan the expansion of teams in the period of one year or have already recently hired someone.

One respondent, who recently expanded the team beyond three male co-founders, hired two programmers and a female with a strong marketing background. He specifically looked for a female employee in order to start leveraging the gender ratio in his team. He explained that generally females have a different view on things than males: females are better in terms of social skills, they foster team relationships insensibly. In addition to that,

females tend to have better communicational, organizational skills, so the role in marketing, sales and public relations fits better the organization.

Another respondent is planning to hire a marketing specialist in the period of one month and also considers hiring female because of their characteristics described above. Overall, respondents admit that the number of females in the technology industry is too small. First of all, females lack the knowledge about technology and start-ups more than men and they are generally less interested in the field. Second, there is a common understanding that females are not capable of working as information technology specialists. Due to these reasons just a small number of females decide to study information and communication technologies and even smaller numbers work in this sector. As one respondent (female CEO) admitted 'the 100% rate of female co-founders was truly an exception' in a start-up company. Currently, her start-up has 19 people and apart from three female co-founders, the rest of the team consists of 50% males and 50% females. She claims that the variety of genders in a team makes the best practice, and the rest of the experts confirm this opinion.

Development of start-up talents in Lithuania

According to research results, the lack of skilled females is not the only problem of Lithuanian start-ups. All respondents agreed that overall the development of talented people in educational institutions does not meet the demands of the industry. 3 CEOs claimed that the preparation of information technology specialists was outdated and not sufficient. As one of them explained, this problem could be solved by the higher collaboration between educational institutions and businesses.

Taking into consideration the fact that educational programs are not flexible and easy to update, businesses could bring the knowledge and practical skills that are up-to-date and relevant. However, as one of the experts observed, there was no consistent strategy for such kind of collaboration. Although, they had been involved in numerous of events and projects that took place in schools or higher education institutions and had shared experience in non-formal events, most of them were one-time events. The respondent noted that such projects as business days in universities, where experts were gathered to share their experience, should be seen just as a first step towards the collaboration between business and educational institutions: 'it was not enough to present success story in 45 minutes presentation, students should be involved in building that success story'.

Another expert added to this idea: 'Educational programs should be directly linked to businesses, were students would have real tasks and projects to implement during the period of studies'. He admitted that it could bring mutual benefits for both students and companies. On the one hand, students would have a possibility to get the inside knowledge of businesses, no matter on what kind of projects they would be working: programming a product or creating marketing plan for it. On the other hand, businesses would get some tasks executed, they could get fresh, new ideas, opinions from students and potentially grow their future employees' base. This collaboration should be encouraged not only during formal internships, but throughout the whole period of studies. Start-up companies could be seen as a good option: the average age of team members is up to 30 years old, so communication is easier; also, there is a lot of freedom and potential to use the creativity of students. As a result, after finishing their studies, students would have tried themselves in different areas, would become more attractive for employers or would be more encouraged to start their own businesses.

The importance of external experts' networks

Based on research results on the dynamics and development conditions of a start-up company within the Lithuanian start-up ecosystem, even if a team of a start-up is highly educated, the importance of constant learning is prominent. Compared to traditional businesses, start-up companies are working in the field of high uncertainty: in the beginning they do not know many things, starting from a product they are going to offer, finishing with their monetization plan. Moreover, the industry of technologies is rapidly changing, so external experts can help to define and mentor some activities and projects. According to respondents, these experts can be reached in accelerator programs. There are two accelerators in Lithuania: StartupHighway and Startup.lt. According to respondents, accelerators can bring tangible benefits to the development of a start-up company: within a short period of time (usually 2-3 months) a start-up company receives feedback and help from experts in different fields. They critically evaluate ideas, ask uncomfortable questions and help to develop or to kill ideas. One respondent, who participated in the StartupHighway program, stated: 'it accelerates your idea to success or to death in 3 months and that is good, because you do not want to waste 2 years thinking about that idea'.

Another respondent is considering applying for the accelerator's program mainly because of the knowledge, networks and financial support. In Lithuania, as in other countries, accelerators do not only provide the help of mentors, but also support start-up activities financially. For example, the Lithuanian accelerator StartupHighway gives up to €14,000 to each start-up in a program. In exchange for financial support and mentorship, a start-up company gives 7,5 % of their equity. One of the reasons why accelerators put so much effort into helping in start-up development is their interest in financial gains.

Nevertheless, 2 respondents note that the network of mentors in Lithuania is not developed enough and there is a lack of experts in certain areas. One of them remarks, there are no gaming industry professionals in Lithuania. Due to that reason, the start-up had to look for other opportunities provided by foreign accelerators with a wider network of mentors. Compared to the experience of these countries in formal educational institutions, it was the most efficient way to learn and develop their idea. Moreover, according to another respondent, accelerators are useful for those, who are first time entrepreneurs and do not have an established network of connections. Summing up, the external help for the start-up development is very important. For first-time start-ups, the most convenient way to receive mentorship is through accelerators, but the more advanced is the team of a start-up, the bigger network of experts it has (they are easy to reach without actual participation in the program).

The importance of external financing for a start-up company

Based on the research on the dynamics and development conditions of start-up companies there is a natural order in terms of start-up financing. At first, start-ups are being financed by personal capital of co-founders or their friends and relatives; only when there is the need for external financing the upcoming stages are (pre-seed), seed, series 'A', series 'B' and etc. The summary of results is provided in the Table 2:

Table 2. Flow of financing in a start-up company in the Lithuanian Start-up Ecosystem

	Early stage	Pre-seed	Seed	Series A	Series B; C; D
Personal capital	X	X			
Accelerators		X	X		
Lithuanian business angels		X	X		
Lithuanian venture capitalists			X	X	
Foreign business angels			X		
Foreign venture capitalists			X	X	X

Source: prepared by authors, according to research results

The decision to either raise external finances or remain self-funded depends on the type of product and financial capabilities of co-founders. Three out of five start-ups are financed by personal capital while the other two have risen external funding. Three start-ups are considering raising capital from business angels or smaller size venture capital fund (VC) and have already started looking for potential investors in Lithuania and abroad. In their cases,

investment is necessary for the further development of a product: the prototype is already created, but a final product and other additional development and marketing efforts cannot be covered by personal funds.

Another start-up has considered raising money from venture capitalists, but angels or partner investments for their business model seem to be more appropriate: venture capitalists are looking for a high return rate, while partners or business angels are more likely to invest because of an idea itself. Two start-ups have already raised external financing. One received pre-seed investment from an accelerator and seed stage investment from a Lithuanian venture capital fund. In addition to that, the series 'A' round is planned to be raised in the period of one year. However, the respondent admits that Lithuanian venture capitalists are able to fund start-ups up to the series 'A' or participate in series 'A' funding together with foreign VC. Most of the Lithuanian venture capital is provided by the European Union initiative JEREMIE, and only one fund is backed by the private capital. Foreign venture capital funds accumulate more capital, so they are more attractive for start-ups, compared to Lithuanian VC funds.

In addition to that, another respondent emphasizes the importance of choosing the right investor. Investors are looking for medium to long-term investment returns and, in exchange for financial support, they get a part of a company's equity. Therefore, strong mutual relations have to be built among these two parties. First of all, it is important to like each other, because during the time a start-up gets investment, it also gets a new team member with decision-making power. Secondly, an investor should be an expert in the field of specific start-ups. This way he/she can truly help in the development process and, on top of that, he/she might have a network of other experts at hand. In the case of this respondent, Lithuanian venture capitalists are not advanced in the field of gaming: they do not know how to evaluate the product and do not have in-depth knowledge about the industry. Due to this reason, this start-up company would not consider raising investment from Lithuanian venture capitalists.

Summing up, the decision to have external financing for the company requires a lot of consideration and commitment. Experts agreed that if a company was capable of working and growing without, it should not consider external financing. Once the decision is made, an investor should be chosen not only according to the financial status, but also according to the expertise in the field and personality.

The importance of involvement in the ecosystem

Overall, results of the study show that start-up companies are active or semi-active ecosystem members and interact with other start-ups or other ecosystem members, participate in different events and projects in order to build a network of connections, gain new knowledge and practice their skills. As one of the respondents notes: 'I am sure my involvement brings a very direct result in my start-up activities, both because of 'know-how' I gain from other members and due to finding resources, partners, financial opportunities, press attention'. CEOs that are located in Vilnius receive more advantages from the ecosystem and are more likely to participate in the community's life, because most of events are being organised in the capital city.

Although two experts are working in other cities of Lithuania, they attend at least several events per year in Vilnius. Another respondent admits: 'now, we see a higher need to participate in such kind of events, because this is the way to get an important knowledge and practice: how to pitch an idea, how to raise investment'. Many of those events are organised by governmental and non-governmental organisations, different initiatives. One of them, Enterprise Lithuania, plays an important role in the Lithuanian Start-up Ecosystem. Experts agree that it contributes to the ecosystem by encouraging establishment of new start-ups, supporting the development of already existing companies, by gathering the start-up community together and building the network in foreign countries. Although, as one of the experts admits, it is hard to measure the importance of this contribution, as it is a long-term process.

Finally, according to respondents, the Lithuanian start-up ecosystem has been developing noticeably during the recent 5 years: start-ups are being established, networks of mentors and experts in the field are expanding. Start-up companies are working in different industries; creating different products for different customers, so there is no direct competition among each other. In addition to that, it is easy to get in touch with each other and as one of the respondents added: 'you do not get lost among 1000 start-ups'. However, respondents admit, that some of the

dimensions in the ecosystem are underdeveloped. For example, the talent development in educational institutions lacks experts in some specific industries and the overall mass-community knowledge about start-ups and start-up-related issues. Taking into consideration the potential that Lithuanian start-up ecosystem has, these issues should be tackled with efforts of all ecosystem members.

Conclusions and recommendations

Relying on the model of start-up ecosystem dimensions, developed by authors in order to summarize the main scientific insights and research regarding the dynamics of start-up ecosystems, a start-up ecosystem is a set of internal and external dimensions (internal – start-up, employees, community network; external – events, programs, investment funds, educational institutions, job centres, society and governmental institutions) which, in one way or another, contribute/ may contribute to the development of a start-up company. Entrepreneurs and people related to business should be able to detect the essence and the need of a healthy ecosystem with all the dimensions that affect ecosystems and how these dimensions could be developed in the future. The most appropriate way to efficiently analyse dimensions of start-up ecosystems' dimensions is by using the triangulation method while combining qualitative and quantitative research methods.

The analysis of research results led to the understanding of specific concerns related to the Lithuanian start-up ecosystem and raised proper conclusions and recommendations. The Lithuanian start-up ecosystem is in the early stage of development, so naturally it has been following well-developed ecosystems around the globe. Based on leading start-up ecosystems in the world, the start-up failure rate is lower in 'healthy' ecosystems, due to the fact that more advanced members of ecosystems, such as mentors, academics, venture capitalists and others, are positively influencing start-up companies.

Teams in a start-up have a significant impact on the development of ideas. According to qualitative research results, there are several key characteristics of start-up teams: there should be at least one leader in a team; a co-founding team has complementing skills and a solid value system, which can be based on the previous experience; gender diversity in teams leads to a more efficient performance. However, the research results showed that there was a lack of females in technology-based start-ups. Females could be attracted to technology-based businesses by renewing the image of technology industry as being innovative and diverse; by creating projects, where female entrepreneurs of this sector would share their experience; by encouraging females to choose studies related to technology sciences.

76% of start-ups are founded by young entrepreneurs who are younger than 30 years old, with an educational background of business or information technologies. Based on the research results, none of respondents have studied life sciences. Global trends show that the number of biotechnology, nanotechnology, clean-tech start-ups is increasing. Life-science-based start-ups could be encouraged with special programs and events, such as 'Life Sciences Baltics', building long-term cooperation strategies within higher education institutions (common projects for students from life sciences and business studies) and educational institutions and business companies. The research revealed that external mentorship had a sufficient influence on a start-up development. Accelerating programs create favourable conditions, where start-ups receive consultations from professionals, working space and possibilities to 'knit ties' with other community members. However, there is a lack of specialists in certain areas. In order to ensure higher added-value and the quality of Lithuanian accelerators, foreign experts should be involved in the process. Seminars and training should be organized in order to bring 'know-how' of developed start-up ecosystems to Lithuania.

Despite the fact that start-up CEOs are familiar with ways to receive funding from investors, venture capitalists and business angels, there is the lack of enumerated investors in Lithuania, who could help transform perspective ideas into realization. One of the ways to eliminate the gap is to attract foreign investors by doing start-up-related fairs and workshops. Another way to raise funds for start-ups is to spread their existence and essence of their existence to the mass-community, where more people would consider the ability to invest their money into promising businesses and possibly to receive high returns on investment while using crowd funding platforms.

The analysis showed that the Lithuanian mass-community is not aware about start-up companies. This leads to the explanation why the growth of the Lithuanian start-up ecosystem is not reaching the potential it has. The mass-community could be introduced to this field by several methods: sharing success stories of Lithuanian start-ups in media; creating events for the mass-community, such as the technology conference 'Login', creating smaller-scale events and seminars for students in high schools and higher educational institutions. The present research raised issue surrounding the need for further analysis about start-up ecosystems, as the image of dimensions of start-up ecosystems and its role on development of a start-up company is still very fragmented and lacking conceptual models and integrative arguments.

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CREATIVITY AND INNOVATION MANAGEMENT: TEAM PERFORMANCE PECULIARITIES

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Abstract. In the field of creativity and innovation management much research has gone into individual creativity and effectiveness, and models of innovation management. In corporate innovation, R&D and product development tools are created and help firms manage innovation projects. Creative behavior is either internally predicated (by personality) or externally induced (by setting conducive contexts). At the team level, most research and managerial practice focuses on establishing the context. The role of certain individuals and their relationship with project success has been described, as has the structure of the team to facilitate certain types of innovation. Thus the aim of this paper is to provide conceptual framework for analyzing the performance of creative innovation teams. Key personality and team role tools are disclosed, performance indicators measuring outputs are identified. Empirical research based on the conceptual framework is conducted on the creative innovation students' teams and the resulting data on their performance is analyzed. Such analytic approach enables to disclose and investigate the behavior and outputs of creative innovation teams.

Keywords: Creative innovation team, team performance management, team composition, MBTI, Belbin team roles

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Introduction

Katzenbach and Smith (1993) underlined that "teams will become the primary unit of performance in highperformance organisations". A critical determinant of team performance is the quality of the human resources which make up the team. For this reason the mix of individuals in a team has become an important issue for management development professionals, even though the psychology of individuals

is a complex enough subject (Partington & Harris 1999). As the world of companies now turns around the innovation process and ability to innovate, a lot of attention is dedicated to innovation management, as well as, innovation management in teams. Much research has gone to this field, firstly, trying to understand the nature of innovation, and later on – in order to control it. These investigations enclosed the stages of innovation, revealing it to be non linear process, and stressed its' close linkages with creativity. Amabile (1996) provided simple and yet significant definitions of all, innovation, creativity and their connection, stating that creativity is the production of novel and useful ideas in any domain, while innovation is the successful implementation of creative ideas within organization. According to her, creativity by individuals and teams is a starting point for innovation.

Based on the importance of creativity to innovation, extensive research has studied factors enhancing creativity within organizations - creativity models were developed (Amabile *et al*. 2005; Ford 1996; Borghini 2005; Woodman & Schoenfeldt 1989) and studied, much attention was devoted to individual and group creativity (Klijn & Tomic 2010). Descriptions of creative personality during all of these years were refined and most of them now include attributes relevant to idea generation as well as idea implementation (Mathisen *et al.* 2008). Team creativity is defined in the extent to which teams develop ideas about products, processes, or procedures that are both, novel and potentially useful (Amabile 1996; West 2002). Creativity was found to be most evident in the early stages of innovation processes or cycles, when those in teams are required to develop or offer ideas in response to a perceived need for innovation (West 2002).

Thus a dominant way of thinking about teams with respect to their capacity for creativity and innovation usually seems to be input-process-output models, in which variety of inputs combine to affect intra-group processes and, in turn, influence team outputs (Mathisen *et al.* 2008). Most studies have been focusing on the input parameters as a context that surrounds a team or diversity of skills, competences, gender, professions when analyzing from the individual perspective. West (2002) has created a famous model on team innovation, that either covers group task characteristics and external demands. Thus these models on creativity processes and team innovation promotion either sparkled the research on team composition, with a shift to an input from an internal perspective and ignoring the external context. Team personality composition refers to a combination of team members' individual characteristics, as reflected in team-level, and the personality composition of teams have been studied (Mathisen *et al*. 2008; Baer *et al*. 2008) in order to understand the better combinations to enhance creativity and innovation. The challenge is to create sufficient diversity within the team without threatening their shared view of their task and their ability to communicate and work effectively together (West 2002). Thus most of the research have focused on Big Five personality factors and even after the number of studies the results seem to be too broad for a proper composition of a team. Therefore, the new ideas and methodologies for the further research need to be presented. This will be attempted to do with a conceptual framework, accompanied by already existing and reliable measurements, which could provide a new look to the management of creative innovation teams and their performance from internal perspective, by correct composition of personalities.

The Conceptual Framework for Analyzing the Performance of Creative Innovation Teams

With the aim to take a new look on possible ways in performance management of creative innovation teams and special focus on internal team environment, specifically, personalities and their composition, the basis for the conceptual framework were developed. Examining team performance through the lens of input-process-output model, several measurements are encompassed in order to fully understand the links of these stages, input's influence on outputs, and to reveal the possible ways to manage them. Thus firstly, personality type with the team role of a person is aimed to be connected, secondly, their

composition links with the success to manage team processes revealed, and finally, the relationship of team composition with the final outputs disclosed. The latter stage is expected to show the best compositions of the teams, given the presented outputs. Such framework could enable to manage the performance of creative innovation teams by setting the right composition of it.

While many factors influence a team's performance, considerable attention has been given to the influence of team member diversity in terms of roles played in a team. The team role model made popular by Meredith Belbin in relation to management is one of the most widely used methods in practice and featured extensively in research on teams at work (Aritzeta *et al*. 2007; Partington & Harris 1999). The eight role model was introduced and a team role was defined as a pattern of behavior characteristic of the way in which one team member interacts with another in order to facilitate the progress of the team as a whole. It was only after the initial research had been completed that the ninth team role, Specialist, emerged. The test developed is based on four key factors: intelligence, dominance, extroversion/introversion, stability/anxiety (Hipple *et al*. 2001; Figurska 2014). See the summary of team roles with the main characteristics enclosed in Table 1.

Table 1. Summary of Belbin's Team Roles

Title	Characteristics	Upsides	Downsides
Social			
CO: Co-ordinator (Chairman)	Clam, self-confident, controlled, tolerant, warm, enthusiastic	Capacity for welcoming all contributions and treating them on their merits without prejudice. Strong sense of objectives	No more than ordinary in terms of intellect or creative ability
TW: Team worker	Socially oriented, rather mild, sensitive, trusting, perceptive, diplomatic	An ability to respond to people and situations. Promotes team spirit	Indecisive at moments of conflict
RI: Resource investigator	Extroverted, warm, enthusiastic, curious, communicative	Capacity for contacting people and exploring anything new. An ability to respond to challenge	Lacks inspiration and the ability to motivate others
Action			
IMP: Implementer (Company worker)	Conservative, dutiful, predictable	Organizing ability, practical common sense, hardworking, self-disciplined	Lack of flexibility, unresponsiveness to unproven ideas
CF: Completer-finisher	Painstaking, orderly, conscientious, anxious, consistent	Capacity for follow-through, perfectionism	Tendency to worry about small details. A reluctance to 'let go'
SH: Shaper	Full of nervous energy, highly strung, very high achievement motivation, wants to win, aggressive, extrovert	Drive and readiness to challenge inertia, ineffectiveness, complacency or self-deception	Prone to provocation, irritation and impatience
Thinking			
PL: Plant	Innovative, introverted, independent, individualistic, serious minded, unorthodox	Genius imagination, intellect, knowledge	Up in the clouds, inclined to disregard practical details or protocol
ME: Monitor evaluator	Sober, unemotional, prudent, detached, intelligent	Judgement, discretion, hardheadedness	Lacks inspiration and the ability to motivate others
SP: Specialist	Single-minded, self-starting, dedicated. Provides knowledge and skills in rare supply	Single-minded, self-starting, dedicated, provides knowledge and skills in rare supply	Contributes only on a narrow front. Dwells on technicalities

Sources: Hipple et al. (2001), Belbin (2011), Belbin (2014), Aritzeta et al. (2007)

The second instrument is Myers-Briggs Type Indicator (MBTI), which is considered one of the oldest, most reliable and valid of the personality instruments. The purpose of the MBTI personality inventory, developed by Isabel Briggs Myers, is to make the theory of psychological types described by C. G. Jung understandable and useful in people's lives. It has been tested on millions of people, has proved to be useful tool in understanding human dynamics of both at work and social level, and effective tool in team building, communication and career exploitation (Von Stamm, 2008). The MBTI identifies four individual preferences (see Table 2): extroverts versus introverts (E vs. I), sensers versus intuitives (S vs. N), thinkers versus feelers (T vs. F), judgers versus perceivers (J vs. P). The first three choices describe person's orientation towards life, the last choice a person's orientation to the outer world, resulting 16 possible types (Hipple *et al*. 2001). The summary of all MBTI types and their characteristics is provided in the Table 3.

Whilst this literature review has defined both MBTI and Belbin's Team Role model, to date no research has explicitly sought to establish the correlation between the two models. Due to the distinct characteristics portrayed by each team role, it may be reasonable to assume that the MBTI Belbin trait combinations can be supported in the research using the conceptual framework.

Table 2. Characteristics of eight MBTI types

Extroverts (E) Are action-oriented and impulsive Like to think out loud and tend to present rough drafts Outgoing and social	**Introverts (I)** Enjoy privacy and quiet time Tend to prefer fully developed ideas
Sensers (S) Look at what is known and real Rely on actual experience and proven results Approach change slowly, carefully, incrementally, and critically	**Intuitives (N)** Perceive abstract things, meanings, relationships and possibilities through insight Like complexity, theoretical relationships and connections between things Able to see future possibilities, often unusual and abstract ones, using imagination and theory
Thinkers (T) Use process of logical and impersonal decision making Apply logical analysis to weigh facts and examine consequences objectively	**Feelers (F)** Arrive at conclusions through process of appreciation with a system of subjective personal values and standards Typically exhibits a warm understanding of people, compassion empathy and the need for harmony
Judgers (J) Convergent, driving towards closure and results Organisation, schedules, plans, and priorities are important	**Perceivers (P)** Divergent, open, flexible and unconstrained Tries to keep things open for new possibilities as long as possible and does not want to miss anything

Source: Hipple et al. (2001)

Table 3. Summary of MBTI types

Title	Characteristics	Strengths	Weaknesses
Artisans			
ESFP: The Performer	Outgoing, friendly and accepting. Exuberant lovers of life and people.	• Working with others • Uses common sense • Adaptable	• Long-term commitments • Does not take criticism well • Takes things personally

ESTP: The Promoter	Takes a pragmatic approach. Enjoys material comforts and style.	• Flexible and tolerant • Focus on the present • Learns by doing	• Easily bored • Unknowingly insensitive
ISFP: The Composer	Quiet, friendly, sensitive and kind. Enjoys the present moment.	• Loyal and committed • Laid back and adaptable • Good listener	• Shies away from conflict • Hard to get to know • Withdrawn
ISTP: The Crafter	Analyzes what makes things work and can organize large amounts of data.	• Self-reliant • Handles conflict well • Efficient	• Emotionally uncomfortable • Long-term planning
Guardians			
ESFJ: The Provider	Warmhearted, conscientious and cooperative. Want harmony in life.	• Focus on other's needs • Money management • Honors commitments	• Dislikes change • Takes blame for others • Trouble with conflict
ESTJ: The Supervisor	Practical, realistic and matterof-fact. Clear set of logical standards.	• Loyal and committed • Social and enthusiastic • Born leader	• Expressing feelings • Can be blunt and sensitive • Like to always be right
ISFJ: The Protector	Quiet, friendly and responsible. Notice and remember specifics about people they care about.	• Good listener • Eager to serve • Great organization	• Neglect own needs • Dislikes change • Takes criticism personally
ISTJ: The Inspector	Quiet, serious and very responsible. Value traditions and loyalty.	• Orderly and organized • Handles criticism well • Good listener	• Too rigid • Needs to be right • Not in tune with feelings
Idealists			
ENFJ: The Teacher	Warm, empathetic, and responsible. Finds potential in everyone and provides inspiring leadership.	• Communication • Affectionate and Loyal • Honors commitments	• Harbors hurt feelings • Tendency to manipulate • Tendency to smother
ENFP: The Champion	Warmly enthusiastic and imaginative. Spontaneous and flexible and can improvise confidently.	• Fun and optimistic • Read others well • Communication	• Trouble with conflict • Can be manipulative • Easily bored
INFJ: The Counselor	Seek meaning in all things. Want to understand what motivates people.	• Good listener • Communication • Insightful	• Trouble with conflict • Can be manipulative • Easily bored
INFP: The Healer	Seek to understand people and help fulfill their potential. Curious and quick to see possibilities.	• Loyal • Loving and caring • Reading other's feelings	• Reacts emotionally • Extreme dislike of criticism • Blames themselves
Rationalists			
ENTJ: The Field Marshall	Frank, decisive, and notices inefficiencies. Enjoys expanding knowledge and sharing it with others.	• Excellent with money • Takes criticism well • Goal setting	• Controlling and intimidating • Appears angry • Impulsive
ENTP: The Inventor	Quick, alert and outspoken. Resourceful in solving new and challenging problems.	• Communication • Laid back • Generating ideas	• Poor follow-up skills • Easily bored • Argumentative
INTJ: The Mastermind	Strong drive for implementing their ideas and achieving their goals.	• Highly intelligent • Honors commitments • Independent	• Unwilling to take blame • Arrogant • Intensive
INTP: The Architect	Seek to develop logical explanations for everything that interests them. Quiet, contained and analytical.	• Laid back • Not demanding • Imaginative and creative	• Explosive • Distrusting of others • Critical of others

Sources: Briggs Myers & Myers (1980), The Myers & Briggs Foundation (2015)

After the combination of MBTI and team role presented by each individual in the team as an input, the process and output measurements need to be defined. Considering the literature on team management, particularly West's (2002) model on team innovation and Thaiman's (2003) enclosed metrics and influencers of innovative performance within innovative teams, the variables measuring team characteristics and team output characteristics were excluded. The initial conceptual framework for analyzing the performance of creative innovation teams is provided in Figure 1. This framework will be tested in the further research.

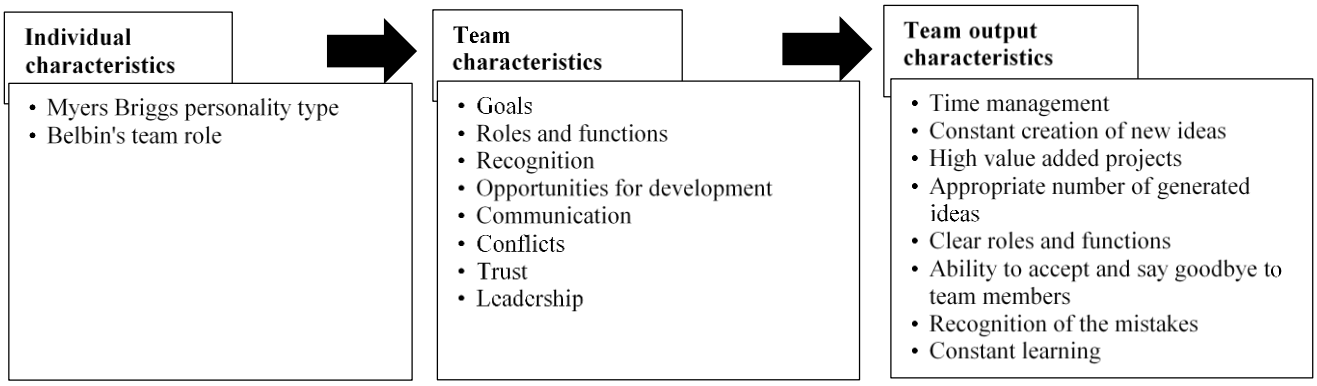

Fig. 1. Conceptual framework for analyzing the performance of creative innovation teams

Method

The nature of the investigating topic determined the research to be entirely quantitative. In order to fulfil the objective to test the framework, creative innovation teams as unit of analysis were selected. Since it is a pivot research, these were the student teams. The sample consisted of 39 undergraduate students (16 male, 23 female) from Technology Entrepreneurship course. Participants were not initially acquainted with one another and later were randomly assigned to the teams. 10 teams were composed with the size range from 2 to 6 members.

Before working on the tasks, participants completed two web-based surveys - Myers-Briggs Type Indicator instrument and Belbin Self-Perception Inventory. During the course of 4 months these teams were working with the aim to create an innovative idea and a business plan for its implementation. In the last seminar, participants were asked to complete a questionnaire and rate the team processes and team output. The latter questionnaire was developed based on the variables indicated in the conceptual model, where the participants rated the team characteristics and team output characteristics answering the questions with a Leiter scale. Following the chosen tools for MBTI and Belbin's team role, which are based on questionnaires, and a new questionnaire developed, the survey research is set to answer the research questions. Thus to test the framework data collection involved 3 questionnaires. As the tools for personality type and team role identification are already developed, in this study the relationships of variables (team composition and innovation output) are the most important to understand.

Statistical analysis was used to find the linkages between MBTI type and Belbin's team role, team composition and team processes evaluations, team composition and evaluations of the outputs. The correct sample should enable to find the correlations and relationships between the variables in the future research. This would enable to conceptualize the model that would define which combination of personalities and roles needs to be present within the team for innovation as an outcome.

Results

Totally 39 students participated in the pilot research. Belbin's team roles test disclosed that the most common role is of Implementer and Resource investigator, each accounting for 20,5% (8 persons) of the total respondents. The third mostly observed role was of Team worker (17,9%, 7 persons). 12,8% (5) were identified as Monitor evaluators, 10,3% (4) - Co-ordinators, 7,7% (3) – Completers-finishers. The most rare were Plants (5,1%, 2 persons) and Shapers with Specialists (2,6%, 1 person each). Thus all 9 possible team roles were found in the students group.

However, Myers Briggs test identified only 10 from 16 MBTI types and relatively low number of Introverts. Large number of students were possessing Judger's characteristics, what reveals their orientation with an outer world being more strict and organized. Moreover, even 38,5% (15 people) were found to be ENTJ type. The other two most commonly found types were ENFJ and ESFJ, each accounting of 17,9% (7). Whilst only 5,1% (2) were ENFP, ESTJ or INTP, and 2,6% (1) – ESFP, ESTP, ISFJ or ISTJ. ENTP, INTJ, INFP, INFJ, ISFP and ISTP were not identified in the student group.

As can be seen in Annex 1, MBTI type and Team role crosstabulation was made to reveal the underpinnings between the personality types and the roles in the team taken. Due to the relatively small sample, no reasonable findings can be grounded. Nevertheless, 5 ENTJ types took the role of Implementer, which is 33,3% within MBTI type and 62,5% within team role, and 4 – the role of Monitor evaluator, accounting for 26,7% within MBTI type and even 80% within the role. Given the characteristics of knowledge sharing and controlling ENTJ, the most common team roles identified are not surprising. While Team workers were commonly found to be ENFJ type people, accounting 42,9% within both, MBTI type and team role. Again, this finding can be grounded by similarities of characteristics - social, responsible and empathetic mode of ENFJ type and Team worker. These primary insights and the obvious connections of characteristics of MBTI type and team role taken that can be seen even from this small sample of students suggests that more accurate and reasonable findings can be seen using a much bigger sample. Therefore, the idea of possible links between Myers Briggs and Belbin models can be well-grounded enclosing the correlations between types and roles in the future research.

The analysis of team compositions considering number of the people, MBTI types, team roles and their combination within a team, enclosed the cases to be very diverse (see Annex 2). Out of 11 teams, the number of people in the team varied from 2 to 6. Moreover, the repetition of MBTI types or team roles within teams was seen, with the cases, where all the team members were possessing the same MBTI type (e.g., all members of ENTJ type in Gods of cards or Thermocolor) or team roles (e.g., Team workers in Išmanioji). However, teams with a mix of personality types (e.g., E-apyrankė, E-system, LMG) or team roles (e.g., Daily products, Eapyrankė, E-system, Gudd, Thermocolor) were formed as well. Finally, two teams with different MBTI types and roles was observed (e.g., E-apyrankė, E-system).

Considering the process of a team work, expressed through evaluation of team characteristics, some teams had shown better results than the other (see Annex 3). The best team characteristics were achieved by two Team workers, ENFJ and ENTJ personalities (i.e., Išmanioji), and a team of four ENTJ personalities, with the roles of Implementer, Team worker and two Monitor evaluators (i.e., Gods of cards). Whereas another team of two ENTJ personalities, Implementer and Specialist (i.e., Thermocolor), did not show outstanding evaluation of team characteristics. As well as the team of three ENFJ type personalities, representing Plant, Resource investigator and Team worker (i.e., Daily products). These results are surprising, as the latter two teams had mixed team roles, which initially

gives the assumption of combination to be right for a project. The same can be said about the team with the worst evaluation of team characteristics (i.e., Gudd), that had a proper mix of team roles. Nevertheless, in this team no social role was presented and that might be a reason of poor processes inside a team. Furthermore, no connections with the composition of a complete mix of MBTI types and team roles in a team (as presented in E-apyrankė and E-System) and team characteristics can be noticed. The same applies for the case of a particular team role or the combination of them that would influence the results of processes within a team. No effect if the team is small (e.g., 2 people) or large (e.g., 6 people) can be noted either. At least these are the conclusions of a small sample with no correlations available to count.

It is important to notice, that the evaluations of output characteristics as an average were higher than the evaluation of team characteristics in most of the cases (see Annex 4). Only one team showed significantly lower results considering the output even though evaluation of the process was relatively strong (i.e., Thermocolor). The closer look inside this case reveals the team inability to constantly create new ideas, manage time, define the clear roles and functions within a team and, finally, to create a high value added idea. This is the result of two rationalists ENTJ type personalities, with the roles of Implementer and Specialist, which represents particularly conservative, disciplined and narrow thinking people. Furthermore, the other team with low results in the output evaluation is combined of two ENTJ, one ESFJ and ENFJ type of personalities, that represented a mix of team roles – Implementer, Plant, Completer-finisher, Monitor evaluator (i.e., Gudd), which was either mentioned considering poor team characteristics. Analysing the personalities of the team mentioned, ESFJ and ENFJ can be seen as very soft and kind types of people, who nevertheless were strengthened with a coordination of ENTJ. Moreover, this team had a construct of two action and two thinking team roles, what logically suggests the assumption of enabling the team to deliver stronger outputs. However, the highest evaluation of the outputs was presented in three teams that either showed the best results of the processes within a team (i.e., Išmanioji, Gods of cards, E-apyrankė). Two Team workers, ENFJ and ENTJ personalities (i.e., Išmanioji) showed the ability not only to run processes within a team, but either to deliver the outputs. The same implies to the team possessing the same ENTJ type by all members (i.e., Gods of cards), representing such team roles as Implementer, Monitor evaluator (2 people) and Team worker. It is important to notice that the composition of the team consists of social, action and thinking roles. The third team that got strong evaluations in outputs was combined by the people with different MBTI types and team roles (i.e., E-apyrankė). ENTJ, ENFJ and ESFJ represented Resource investigator, Team worker and Co-ordinator respectively. The MBTI types of this team were the same as in the poorest performing team (i.e., Gudd). Thus it points to the other factors that determined the success. Taking into account team roles, the Team worker was the role mostly detected in the teams presenting the best results. Nevertheless, the Team worker can either be found in the ones performing poorly. The complete mix of MBTI types and team roles in this team cannot also be considered as the factor of high outcomes, because the other team that either represents a mix (i.e., E-System) haven't showed good results neither in team processes, neither in the outcomes. Furthermore, again no effect of a team size was noted. Therefore the deeper analysis to understand the relations of team composition and its' outputs is needed.

Nevertheless, it is important to underline that all the teams evaluated high in outputs were able to constantly create new ideas, to generate an appropriate number of them and, finally, to present a high value added project, what shows the ability to spark the creativity and turn the generated ideas out to an innovation. These are the complex of variables to understand the creative innovation team's performance.

Conclusions

With the aim to study the relationships of team composition and innovation output conceptual framework for analyzing the performance of creative innovation teams was provided. Such framework invites for a discussion taking a new look to possible ways of innovative performance management, focusing on internal team environment, specifically, personalities and their composition, as the basis for innovative outcomes. Examining team performance through the lens of input-process-output model, MBTI and Belbin's team role instruments are used, as well as variables to measure the management of the processes within a team and the final outcomes. Due to the distinct characteristics portrayed by each team role, it is suggested that the MBTI Belbin trait combinations can be supported in the research. Moreover, the framework is expected to show the best compositions of the teams, given the presented outputs and enabling to manage the performance of creative innovation teams by setting the right composition of personalities and roles within the team. The initial research with student teams proved that the expected linkages can be found even in a relatively small sample and the framework with a bigger sample should be tested. The correct sample should enable to find the correlations and relationships between the variables in the future research. The major challenge is correct data analysis in order to come up with reliable theory – model. In order to achieve this the methodological and analytical means to quantify relationships between individual, team and output parameters should be established. Personality and team role tests need to be administered, innovation results need to be surveyed and classified based on deep statistical analysis. Team compositions and the causal connection between personality and team role mix and innovation result needs to be modeled and conceptualized. Theory-testing research would be appropriate to prove or clarify the model.

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Annex 1. MBTI type and team role crosstabulation

			Team role									Total
			Implementer	Plant	Resource investigator	Team worker	Shaper	Co-ordinator	Specialist	Completer-finisher	Monitor evaluator	
MBTI type	ENFJ	Count	0	1	2	3	0	0	0	1	0	7
		% within MBTI type	0,0%	14,3%	28,6%	42,9%	0,0%	0,0%	0,0%	14,3%	0,0%	100,0%
		% within Team role	0,0%	50,0%	25,0%	42,9%	0,0%	0,0%	0,0%	33,3%	0,0%	17,9%
		% of Total	0,0%	2,6%	5,1%	7,7%	0,0%	0,0%	0,0%	2,6%	0,0%	17,9%
	ENFP	Count	0	0	1	0	0	1	0	0	0	2
		% within MBTI type	0,0%	0,0%	50,0%	0,0%	0,0%	50,0%	0,0%	0,0%	0,0%	100,0%
		% within Team role	0,0%	0,0%	12,5%	0,0%	0,0%	25,0%	0,0%	0,0%	0,0%	5,1%
		% of Total	0,0%	0,0%	2,6%	0,0%	0,0%	2,6%	0,0%	0,0%	0,0%	5,1%
	ENTJ	Count	5	0	3	2	0	0	1	0	4	15
		% within MBTI type	33,3%	0,0%	20,0%	13,3%	0,0%	0,0%	6,7%	0,0%	26,7%	100,0%
		% within Team role	62,5%	0,0%	37,5%	28,6%	0,0%	0,0%	100,0%	0,0%	80,0%	38,5%
		% of Total	12,8%	0,0%	7,7%	5,1%	0,0%	0,0%	2,6%	0,0%	10,3%	38,5%
	ESFJ	Count	2	1	1	0	0	3	0	0	0	7
		% within MBTI type	28,6%	14,3%	14,3%	0,0%	0,0%	42,9%	0,0%	0,0%	0,0%	100,0%
		% within Team role	25,0%	50,0%	12,5%	0,0%	0,0%	75,0%	0,0%	0,0%	0,0%	17,9%
		% of Total	5,1%	2,6%	2,6%	0,0%	0,0%	7,7%	0,0%	0,0%	0,0%	17,9%
	ESFP	Count	1	0	0	0	0	0	0	0	0	1
		% within MBTI type	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
		% within Team role	12,5%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,6%
		% of Total	2,6%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,6%
	ESTJ	Count	0	0	0	1	1	0	0	0	0	2
		% within MBTI type	0,0%	0,0%	0,0%	50,0%	50,0%	0,0%	0,0%	0,0%	0,0%	100,0%
		% within Team role	0,0%	0,0%	0,0%	14,3%	100,0%	0,0%	0,0%	0,0%	0,0%	5,1%
		% of Total	0,0%	0,0%	0,0%	2,6%	2,6%	0,0%	0,0%	0,0%	0,0%	5,1%
	ESTP	Count	0	0	0	0	0	0	0	1	0	1
		% within MBTI type	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%	100,0%
		% within Team role	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	33,3%	0,0%	2,6%
		% of Total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,6%	0,0%	2,6%
	INTP	Count	0	0	1	0	0	0	0	1	0	2
		% within MBTI type	0,0%	0,0%	50,0%	0,0%	0,0%	0,0%	0,0%	50,0%	0,0%	100,0%
		% within Team role	0,0%	0,0%	12,5%	0,0%	0,0%	0,0%	0,0%	33,3%	0,0%	5,1%
		% of Total	0,0%	0,0%	2,6%	0,0%	0,0%	0,0%	0,0%	2,6%	0,0%	5,1%
	ISFJ	Count	0	0	0	0	0	0	0	0	1	1
		% within MBTI type	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	100,0%
		% within Team role	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	20,0%	2,6%
		% of Total	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2,6%	2,6%
	ISTJ	Count	0	0	0	1	0	0	0	0	0	1
		% within MBTI type	0,0%	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%
		% within Team role	0,0%	0,0%	0,0%	14,3%	0,0%	0,0%	0,0%	0,0%	0,0%	2,6%
		% of Total	0,0%	0,0%	0,0%	2,6%	0,0%	0,0%	0,0%	0,0%	0,0%	2,6%
Total		Count	8	2	8	7	1	4	1	3	5	39
		% within MBTI type	20,5%	5,1%	20,5%	17,9%	2,6%	10,3%	2,6%	7,7%	12,8%	100,0%
		% within Team role	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%
		% of Total	20,5%	5,1%	20,5%	17,9%	2,6%	10,3%	2,6%	7,7%	12,8%	100,0%

Annex 2. Team compositions

				MBTI type	Team role
Team name	Daily products	1		ENFJ	Plant
		2		ENFJ	Resource investigator
		3		ENFJ	Team worker
		Total	N	3	3
	Design Builder	1		ENTJ	Implementer
		2		ESFP	Implementer
		3		INTP	Completer-finisher
		4		ENTJ	Monitor evaluator
		Total	N	4	4
	E-apyrankė	1		ENTJ	Resource investigator
		2		ENFJ	Team worker
		3		ESFJ	Co-ordinator
		Total	N	3	3
	E-System	1		ENTJ	Resource investigator
		2		ISTJ	Team worker
		3		ESTP	Completer-finisher
		Total	N	3	3
	Gods of cards	1		ENTJ	Implementer
		2		ENTJ	Team worker
		3		ENTJ	Monitor evaluator
		4		ENTJ	Monitor evaluator
		Total	N	4	4
	Gudd	1		ENTJ	Implementer
		2		ESFJ	Plant
		3		ENFJ	Completer-finisher
		4		ENTJ	Monitor evaluator
		Total	N	4	4
	Išmanioji	1		ENFJ	Team worker
		2		ENTJ	Team worker
		Total	N	2	2
	Lyderiai	1		ENFP	Resource investigator
		2		ESTJ	Team worker
		3		ENFP	Co-ordinator
		4		ESFJ	Co-ordinator
		Total	N	4	4
	LMG	1		ENFJ	Resource investigator
		2		ENTJ	Resource investigator
		3		ESFJ	Resource investigator
		4		ISFJ	Monitor evaluator
		Total	N	4	4
	Siloritas	1		ENTJ	Implementer
		2		ESFJ	Implementer
		3		ESFJ	Implementer
		4		INTP	Resource investigator
		5		ESTJ	Shaper
		6		ESFJ	Co-ordinator
		Total	N	6	6
	Thermocolor	1		ENTJ	Implementer
		2		ENTJ	Specialist
		Total	N	2	2
	Total	N		39	39

Annex 3. Evaluations of team characteristics

Team name		Team characteristics								
		Goals	Roles and functions	Recognition	Opportunities for development	Communication	Conflicts	Trust	Leadership	Mean
Daily products	Mean	3,00	2,83	2,89	3,44	2,90	3,13	3,33	3,25	3,10
Design Builder	Mean	3,00	2,71	3,17	3,22	3,43	2,70	3,13	2,94	3,04
E-apyrankė	Mean	3,47	3,33	3,44	3,59	3,47	2,67	3,23	3,38	3,32
E-System	Mean	3,33	2,78	3,33	3,15	2,80	2,40	3,03	3,04	2,98
Gods of cards	Mean	3,65	3,08	3,75	3,61	3,65	2,70	3,50	3,22	3,40
Gudd	Mean	2,60	2,58	2,50	2,75	2,93	3,05	2,93	3,03	2,80
Išmanioji	Mean	3,50	3,17	4,00	3,94	3,60	2,80	3,35	3,69	3,51
Lyderiai	Mean	3,60	3,17	3,50	3,36	3,20	2,70	3,43	3,31	3,28
LMG	Mean	3,35	2,88	3,25	3,33	2,90	2,50	2,73	3,03	3,00
Siloritas	Mean	3,10	3,31	3,22	3,17	3,27	2,73	3,15	3,23	3,15
Thermocolor	Mean	3,00	3,50	3,00	3,67	3,35	2,80	2,95	3,50	3,22
Total	Mean	3,23	3,02	3,26	3,33	3,22	2,74	3,16	3,20	3,14

Annex 4. Evaluations of output characteristics

Team name		Output characteristics								
		Time management	Constant creation of new ideas	High value added projects	Appropriate number of generated ideas	Clear roles and functions	Ability to say goodbye to a team member	Recognition of the mistakes	Constant learning	Mean
Daily products	Mean	3,00	3,00	3,00	3,67	3,50	2,67	3,50	3,17	3,19
Design Builder	Mean	2,75	2,75	3,50	3,75	3,13	3,50	3,75	3,50	3,33
E-apyrankė	Mean	3,33	3,67	3,33	3,00	3,42	3,33	3,67	3,50	3,41
E-System	Mean	3,00	3,33	3,00	3,00	3,33	3,67	3,33	2,83	3,19
Gods of cards	Mean	3,38	3,25	3,75	3,50	3,44	3,75	3,63	3,75	3,55
Gudd	Mean	2,88	3,00	3,13	2,75	2,75	4,00	2,63	2,88	3,00
Išmanioji	Mean	3,50	3,50	3,50	3,50	3,50	4,00	4,00	3,75	3,66
Lyderiai	Mean	3,13	3,25	3,25	3,25	3,38	2,75	3,25	3,50	3,22
LMG	Mean	2,75	3,25	3,25	3,75	3,13	2,50	2,75	3,25	3,08
Siloritas	Mean	3,50	3,00	3,33	3,17	3,50	3,33	3,58	3,17	3,32
Thermocolor	Mean	2,25	2,50	2,50	3,00	2,63	2,50	3,25	3,50	2,77
Total	Mean	3,08	3,13	3,27	3,31	3,26	3,28	3,37	3,32	3,25

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ENTREPRENEURSHIP IN CREATIVE INDUSTRIES: A CASE OF THEATER FROM ITALY

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Abstract. Scholars have long overlooked entrepreneurship in the performing arts. The difficulty of making firms operating in these contexts economically self-sufficient and the consequent dependence on public funding have long diverted the attention of scholars from this topic. Only recently, especially thanks to the advancements in theory on entrepreneurship, the phenomenon has begun to be examined in these contexts. This paper, which is mainly based on literature on entrepreneurship and on nascent literature focused on arts entrepreneurship, aims at exploring the entrepreneurial phenomenon with reference to a specific art: the theatre. It is focused on a firm operating in Italy, whose institutional system is characterized to be of particular, although decreasing, support for firms operating in cultural industries. The case study identifies the dimensions of entrepreneurship, declined considering the specificity of the activity and the context in which the firm operates.

Keywords: entrepreneurship, performing arts organizations, Italy, case study

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1. Introduction

The debate on the entrepreneurial phenomenon (e.g.Vasiliūnaitė 2014; Wahl, Prause 2013; Giriūnienė 2013; Baikovs, A.; Zariņš, I. 2013; Laužikas**,** Mokšeckienė 2013) in the performing arts is not new. Since the 1980s, some scholars, mostly economists, have tried to approach the subject. However, their studies were mostly focused on the aspects that make this sector "problematic" with reference to entrepreneurship (e.g. Baumol, 1967; Baumol & Brown, 1965), especially accepting a notion of entrepreneurship as a process driven primarily by financial motivations. Through the phenomenon of the "cost disease", Baumol and Baumol (1985) emphasized the need to financially support these enterprises. In fact, for the Performing Arts Organizations is extremely difficult to survive by relying on the turnover and is therefore essential "a constant flow of contributions" (Baumol & Brown, 1965, p. 499). This helps to make cultural entrepreneurship a "situated" phenomenon, i.e. a phenomenon anchored to "a national and local political context" (Kolsteeg 2013, p. 14).
It should be noted that most of the Performing Arts Organizations are traditionally non-profit organizations (Hansmann 1986; see also O'Hagan, Purdy 2003; Rentschler, Geursen 2003), and in this scenario, as DiMaggio

(1986) highlighted, private foundations and government institutions play a central role to feed the innovation process to which entrepreneurship tents.
More recently, the role of entrepreneurship a la Schumpeter in this sector has begun to be reevaluated. This could be due, in our opinion, to several phenomena, among which emerge:
- The progressive reduction of the public financial support to the activities of the performing arts Organizations; this has forced entrepreneurs to seek alternative sources of financing and at the same time to find ways to generate more revenue
- The enhancement of some purposes, including the social ones, to which these enterprises normally tend, more and more of interest for scholars.
Some of the debated issues are mostly focused on the individual sphere of the entrepreneur. These include the exploration of the "profiles" of cultural entrepreneurs (e.g. Mulcahy 2003), the entrepreneurial behavior, also in function of the attempt "to reduce subsidy-dependence", balancing artistic freedom and entrepreneurial freedom (Kolsteeg 2013 p. 13), and the pursuit of educational practices that allow artists to gain entrepreneurial skills (e.g. Bonin-Rodriguez 2012; Pollard & Wilson 2013). For the rest, the entrepreneurial phenomenon in the performing arts is still relatively unexplored; as pointed out by Preece (2011, p. 103), the ways in which the entrepreneurial phenomenon occurs in this context are still not clear.
Stating these premises, this paper aims at exploring the entrepreneurial phenomenon with reference to a specific performing art, and more specifically theatre. Entrepreneurship here is conceived with reference to the exploitation of entrepreneurial opportunities (Alvarez & Barney, 2007). By considering a case study, the paper identifies the dimensions of entrepreneurship, declined considering the specificity of the activity and the context in which the firm operates.

2. The dimensions of entrepreneurship

In order to identify the dimensions of entrepreneurship in the theater, this paper takes into consideration the work of Yalcin & Kapu (2008), which explore the dimensions of entrepreneurship in transition economies. As will be explained later in the paper, we believe that the dimensions identified in their study can be easily adapted to the performing arts.
Yalcin & Kapu (2008) examine the dimensions of entrepreneurship considering the entrepreneurial motives, the problems that entrepreneurs face with reference to the particular economic and institutional environment, and the entrepreneurial opportunities pursued. Considering the motives, starting from the relevant literature and in particular by extending the model proposed by Robichaud et al. (2001), they believe that they may be included in the following categories (Yalcin & Kapu, 2008):
- Financial, linked to the need for economic security and to the desire to earn money
- Recognition, including what contributes to building a social recognition, and in particular "the need for achievement, personal achievement, realize self-actualization, assumes responsibility, desire to innovate, willingness to take risks, exploit personal potential, face challenges, and create employment opportunities" (Yalcin & Kapu 2008, p. 189)
- Of freedom, concerning the desire to be independent and to control the work of others, and to have an interesting and flexible job
- Family traditions, namely the desire to continue or imitate the work of family members.
Turning to business problems, the authors, on the basis of the relevant literature, refer to: "high taxation, unstable regulations and economic conditions, ineffective banking systems, existence of corruption, prevalence of former business mindset, difficulty in getting capital and loans, and red tape" (Yalcin & Kapu 2008, p. 193).
Finally, the last dimension relates to the entrepreneurial opportunities pursued.
We believe that the classification proposed by Yalcin & Kapu (2008) can be adapted to theater organizations operating in the Italian context.
The business problems faced by Italian firms are certainly different from those of a country in transition. However, we argue that this dimension can be considered universally relevant; moreover, the Italian scenario, in which this dimension can be specifically declined, is characterized by considerable problems encountered by entrepreneurs in pursuing their business.

3. Methodology

This study represents the initial step of a wider project aimed at identifying the dimensions of entrepreneurship in the field of theater. Given its exploratory nature and the paucity of studies on the subject, we decided to opt for a qualitative method that can enable us to understand the dynamics of the phenomenon in the specific sector. More specifically, we consider a single case study (Yin 1994), because it is a particularly effective method to conduct a study of this type.

We selected the specific case for two reasons. First, it is considered particularly relevant for the phenomenon examined; in fact, as will be seen, entrepreneurship is a trait that considerably characterizes the theatrical enterprise considered. Secondly, we considered the possibility of access to secondary data and the availability of the entrepreneurial team.

We used secondary data, related mostly to company documents, and primary data, collected through in-depth interviews. The interviews, seven in all, which were carried out in two years, between 2014 and 2015, were recorded and then transcribed and analyzed. Thus, we identified the dimensions of the entrepreneurial phenomenon, starting from the model proposed by Yalcin & Kapu (2008).

4. The case of "Theatre of Naples"

"Theatre of Naples[1]" is a non-profit performing arts organization (see Rentschler & Geursen, 2003) operating in Naples. It represents a particularly important enterprise in theater in the national and international context. Founded in 2000 by a famous actor and director from Naples, has its roots in the mid-80s, when the founder restored and opened to the public an old theater.

In the theater are realized in-house productions, often in collaboration with other organizations, and are hosted outside productions, included in the season's program. In the second half of the 2000s, it has undergone a generational shift that does not seem to have undermined the original theatrical vocation and has led to an expansion of the offer. The founder's sons, who now make up a heterogenous and cohesive entrepreneurial team, have introduced a series of addictional services. In addition to the ancient theater, today is also used a small theater adjacent to the main one, which hosts "niche" productions. Moreover, the team started to systematically organize cultural events using the spaces of the structure, which hosts also a library and a bistrot, managed in partnership with third sector associations. The old building has become a real cultural hub, a crossroads of a heterogenous audience.

4.1 The entrepreneurial team

It has been emphasized that teams strongly characterize cultural industries (Lampel 2006, p. 42). The collective dimension also involves the entrepreneurial sphere. In general, as noted by Gartner, Shaver, Gatewood, and Katz (1994 p. 6), "the locus of entrepreneurial activity often resides not in one person, but in many". This is common in the performing arts, in which the skills required to pursue business opportunities are very different. In fact, pursue business opportunities in this area means (Rentschler & Geursen 2003, p. 3) to promote diversity in funding (funding from different sources) and creative programming, developing market edges, balancing elite and more popular outputs (Rentschler 2002); this requires very different skills.

The entrepreneurial team is made up of three brothers, sons of the founder, who make up the Board of Directors of the Foundation. The subjects, two males and a female, have between 33 and 42 years. The formation of the team was a result of the generational transition, occurred in the second half of the 2000s, which has been quite natural, because team members worked for a long time within the family theater.

Two of the team members have a purely artistic background and are graduated in an academy of theater. They have gained experience working as actors and directors in in-house productions, co-productions between the theater and external parties, and in other productions. The only woman of the team, which now holds the position of Head of the Foundation, has instead a managerial education. In addition to working intensely in the theater, she has often contributed to the organization of major external events, in cooperation with local authorities.

[1] In order to preserve the anonymity of the enterprise, we use an invented name.

4.2 The entrepreneurial motives

Entrepreneurial motives in this case are certainly not of a financial nature. The realization of a high quality product, in the theater, usually do not ensure significant economic returns; this happens instead for more commercial products, designed in order to capture the broadest public as possible. This has been also emphasized by Gangi (2012, p. 859), who argues that "pecuniary benefits are typically not the primary motivation for starting business ventures" and to carry on a business.

An important role is played by the will to carry on a family tradition, inaugurated by the founder, an actor and director of great renown. The three brothers were involved very soon in the activity of the theatre; they debuted on stage at an early age and they have had an increasingly important role in the management of the theater and the realization of the shows. When the generational transition happened, it was quite natural, and it did not cause any significant problem.

Another aspect of great importance concerns the willingness to contribute to the social community, enriching it from the cultural point of view. It is a very strong motivation, which helped to direct the activities of the theater throughout his life path towards the territory. The team members also emphasize that, through its activities, the Theatre has contributed concretely to retrain an area of Naples that a few decades ago was in a state of deterioration. That area improved significantly, becoming also safer, and today the community associates it immediately to the presence of the theater.

This motivation cannot be simplistically reconducted to the "recognition", proposed by Yalcin & Kapu (2008), and is similar to the "service to society" mentioned by Gangi (2012). In fact, while it incorporates the intention of being socially recognized and identified as a cultural center, which constitutes an indirect effect, its main objective is to contribute concretely to the cultural growth of the community.

Finally, one last motive can be synthesized in the intention to express themselves freely from the artistic point of view. This motivation, which is not simply the "self-realization" highlighted by Gangi (2012) is especially emphasized by team members who are primarily active in artistic management.

4.3 The entrepreneurial problems

The main problems encountered by team members concern different aspects that revolve around the allocation of contributions and support, not always considerable, of local authorities.

Considering the allocation of contributions, vital for the enterprises in the sector, a particularly relevant problem regards the parameters by which the contribution is quantified, based on an evaluation that is not always objective, especially with reference to the "quality" of the artistic output. Another problem, very emphasized, concerns the slowness in the allocation of contributions, the extent of which is communicated after the definition of the artistic program for the year of competence, and more precisely at the time when the program is being implemented. This creates great difficulties in defining the budget and consequently the program for the artistic season; thus, these operations are based mainly on what has been assigned in the past, and the team is stimulated in searching other sources of funding.

Second, the relationship with some local authorities is "complicated", in the sense that the Theatre is not always "supported" enough, and not only in financial terms. This is probably because, despite widespread awareness of the importance of the theater for the cultural development of the area in question and the willingness of the team to reach this objective, local authorities are not enough aware of the need to ensure support and a constant dialogue so that the theater can be facilitated in pursuing its social mission.

4.4 The entrepreneurial opportunities

The entrepreneurial team has not simply carried on the activity inaugurated by the founder, focused on theatre. As mentioned earlier, while leaving the theater at the center of the scene, it has revitalized and enriched the offer. First, the team has enriched the strictly theatrical offer, giving rise to a systematic "parallel" program, devoted to "niche" productions, hosted in a small theater adjacent to the main one. Second, it began to organize very frequently various cultural events (exhibitions, book presentations, workshops for children, etc.), which take place within the spaces of the ancient building.

Using the spaces of the structure, the team decided to host free a library and a bistro where exhibitions and concerts are held. These initiatives in most cases do not generate a direct economic return for the organization, but reveal the team's ability to detect business opportunities. In this specific case, the enrichment of the offer was designed to change the conception of the organization in the collective imagination. In fact, today it is a cultural point of reference of an increasingly diverse public, not only passionate about theater, but also of literature, music, and dance. In this way, the team was able to pursue more effectively its objectives, especially with reference to the cultural enrichment of the community. Today it is limitative to identify the organization exclusively with the theatrical activity, although this continues to be the "core business". It is a cultural "hub" that enriches the community through a wide range of artistic languages.

Conclusions

Entrepreneurship in the performing arts is a phenomenon to which scholars are devoting increasing attention, but that has not yet been the subject of systematic investigation.

The purpose of this paper was to contribute to the emerging research on the phenomenon, exploring entrepreneurship with specific reference to a performing art, the theater, in a context, the Italian one, where financial support for enterprises in the sector is very strong, but decreasing in the last years. In considering the dimensions of entrepreneurship, we started from the model Yalcin & Kapu (2008), applied to the context of the Italian theater, through a single case study.

In the case considered, the locus of entrepreneurship can be identified in a close knit entrepreneurial team, characterized by heterogenous but complementary competences.

The main entrepreneurial motivations that emerge concern the will to carry on a family tradition started by the founder, the intention of contributing to the cultural growth of the local community, and the opportunity of a free artistic expression through internal production.

Considering the main problems encountered in carrying out their entrepreneurial activity, team members highlight the critical issues linked to the allocation of contributions, which is based on very complex parameters, whose evaluation is not always objective; the other relevant problem emphasized concern the slowness in the assignment of the contributions, which does not allow the team to program the seasons with the certainty of have sufficient financial resources, forcing the organization to operate in conditions of great uncertainty. In addition, it was pointed out the problem of the support, not always significant, by local authorities, which recognize the importance of the enterprise for the cultural growth of the community, but do not translate this awareness into a significant support.

Finally, with regard to entrepreneurial opportunities, emphasis is placed on the ability of team members to identify and exploit the opportunity to transform the theater into a real cultural center interwoven into different artistic languages, leaving intact its theatrical vocation, but at the same time enhancing its image and broadening its horizons, thus attracting new audiences.

The scenario that emerges from the case highlights three aspects: the prevalence of "social" and "artistic" motives; problems relating to the assignment of contributions and to institutional support; and the ability to pursue business opportunities. These are, of course, only first evidences which must be confirmed by further research, also with reference to other organizations in the sector. The use of a single case certainly constitutes a limitation of this paper, but has allowed us to explore in detail a phenomenon that had not been addressed previously, albeit through the support of an existing model. Therefore, despite its limitations, this paper could form the basis for future research on the topic.

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MEASURING OF INNOVATION ACTIVITIES IN EGYPT: THE CASE OF INDUSTRY[2]

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Abstract. This paper is based on the main findings of the 2012 Egyptian National Innovation Survey, which covered 2022 firms with different manufacturing activities. The main objective of this survey is to try to evaluate the situation in the private firms, with regards innovation. Our findings show that 11.3% of Egyptian firms have at least one type of innovation (product – process – organizational – marketing).
The innovation activities in firms increase with increasing size of companies in term of persons employed. In the majority of the manufacturing sectors, 1.5 % of innovative firms depend on universities, government, and public research institutions as main sources of information assisting innovation activities.

Keywords: Innovation Survey; indicators; innovation activity; statistics; measurement of innovation

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JEL Classifications: O3, L23, L26

1. Introduction

Innovation is important to Egypt; it serves as one of the most important drivers of economic growth. The Asian miracles, countries like Japan, China, India, South Korea, Malaysia, as well as a number of other countries like Brazil, Argentina, Peru, etc. are examples of success stories that directed their efforts to invest in R&D and innovation, therefore resulting in the success of those economies as innovators of new products and services worldwide.

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Innovation system is composed of individuals and organizations that directly and indirectly invest time and energy in the production of scientific and technical knowledge. This knowledge flows and recombines in complex ways (Kline and Rosenberg 1986). The term *National Innovation System* (NIS) was first originated by Christopher Freeman and Bengt-Ake Lundvall in the late 1980s (Freeman 1987 and Lundvall 1985). The national innovation systems approach stresses that the flows of technology and information among people, firms and institutions are key to the innovative process (Lundvall 1985). There is no standard definition of national innovation systems. NSI has been defined in literatures as the network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies (Freeman 1995). The national institutions, their incentive structures and their competencies, that determine the rate and direction of technological learning (or the volume and composition of change generating activities) in a country.

According scientists (Patel and Pavitt 1994) set of distinct institutions which jointly and individually contributes to the development and diffusion of new technologies and provides the framework within which governments form and implement policies to influence the innovation process. As such, it is a system of interconnected institutions to create, store and transfer the knowledge, skills and artifacts, which define new technologies (Metcalfe 1995).

Here it is reasonable to make an excursion into contemporary literature if not directly tackling measurement of innovation but, anyway, facilitating revelation of new facets and forms of innovative activity. In changing contexts close observation of innovation processes enables introduction of additional metrics into innovation measurement systems. Such additional facets, could be, e.g. sustainability of innovativeness (Balkienė 2013; Tvaronavičienė 2014); capacity to create and innovate (Figurska 2014; Ignatavičius et al. 2015; Laužikas, Mokšeckienė 2013; Grubicka, Matuska 2015) innovativeness oriented to energy stewardship (Barberis et al. 2014; Cuneo et al. 2014), propensity to cluster (Bonetto et al. 2014), emerge of open-source innovations (Hoffmann, Prause 2015). Contemporary processes have to be taken into account and respective approaches towards sustainable development (Vasiliūnaitė 2014) and innovation measurement (Dudzevičiūtė, Tvaronavičienė 2011) discussed and evaluated. On-going scientific discussion is crucial for identifying facets of contemporary innovative processes, which with some time lag might, if relevant, addressed in national systems of innovation measurement.

For policy-makers, an understanding of the national innovation system can help identify advantage points for enhancing innovative performance and overall competitiveness. It can assist in pinpointing mismatches within the system, both among institutions and in relation to government policies, which can thwart the technology development and innovation. They are the "Policies which seek to improve networking among the actors and institutions in the system and which aim at enhancing the innovative capacity of firms, particularly their ability to identify and absorb technologies (OECD, 1997)."

The measurement and assessment of national innovation systems has centered on four types of knowledge or information flows: 1) interactions among firms, primarily joint research activities and other technical collaborations; 2) interactions among firms, universities and public research institutes, including joint research, co-patenting, co-publications and more informal linkages; 3) diffusion of knowledge and technology to firms, including industry adoption rates for new technologies and diffusion through machinery and equipment; and 4) personnel mobility, focusing on the movement of technical personnel within and between the public and private sectors. Attempts to link these flows to firm performance show that high levels of technical collaboration, technology diffusion and personnel mobility contribute to the improved innovative (OECD, 1997).

There are many different approaches to Measuring innovation at the organizational level and at the political level. Organizational level relates to individuals, team-level assessments, and private companies from the smallest to the largest. The measurement of organizations conducted by surveys, workshops, consultants, or internal benchmarking (Davila et al., 2006). Measurements at the political level are more focused on a country or region competitive advantage through innovation. The OECD Oslo Manual (1995) suggests standard guidelines on measuring types of innovation (OECD, 1995). These methods are used for example in the European community innovation surveys (OECD, 1995).

Egypt is working to update on the national innovation strategy, once governments develop an innovation strategy, statistical measures are required to monitor the progress of specific interventions and to support evaluation. It is principally through evaluation that policy learning occurs, leading to the improvement of the intervention, or its abandonment if it is shown not to be working. The mix of interventions and measures can also support policy experiments (Lundvall et al., 2009), in February 2014 the Egyptian Science, Technology and Innovation Observatory (ESTIO) has been established in the Academy of Scientific Research and Technology as a policy tool to understand the current situation of science, technology and innovation system.

Egypt has started, since 2008, conducting a survey that covered 3000 firms. In 2012, the second innovation survey that covered 2022 firms was designed to give information on the innovativeness of different sectors and regions and to understand the degree of interest of the private firms in innovation. The study in cooperation between ministry of scientific research, Academy of Scientific Research and Technology (ASRT) and The New Partnership for Africa's Development (NEPAD).

2. Methodology

The measuring of innovation is based on Oslo manual (1995) and European community innovation surveys which has been adopted by the Human Sciences Research Council in South Africa (Blankley et al., 2009). The Egyptian Innovation Survey 2012 carried out on definitions of the Oslo Manual, implies a random sample of around 2022 firms using face-to-face interviews. The frame of the sample selection was drawn according to a pre-implemented list. The chosen firms are located in 10 different governorates that represent geographic distribution and basic activities in Egypt.
The chosen firms include three different main activities; manufacturing, services, and trade. The questionnaire is designed to match the Egyptian environment and cover four types of innovation (product, process, organizational, and marketing) (see Appendix A for definitions).

3. Main findings

3.1. Effect of size of firms on innovation rate

Innovative activities take place in small and medium-sized firms as well as in large firms. According their size, firms are classified in a survey into micro companies with up to 10 employees; small companies employ up to 50 employees, whilst medium-sized firms contain up to 250 employees and large firms more than 250 employees. The current situation of the Egyptian economy is mainly based on the performance of the few big internationally acting companies and depending highly on the economic performance of a high number of small and medium Firms.

Figure (1) shows that large firms have the highest innovation in both manufacturing and services sectors 29.8% & 17.6 % respectively. The innovative rate in medium firms is 17.3%, in small firms is (12.5%) and in micro firms is 5.3%. The result shows a strong relationship between the size of firms and the rate of innovation, where innovation activity increases with the increasing number of employees in firms.

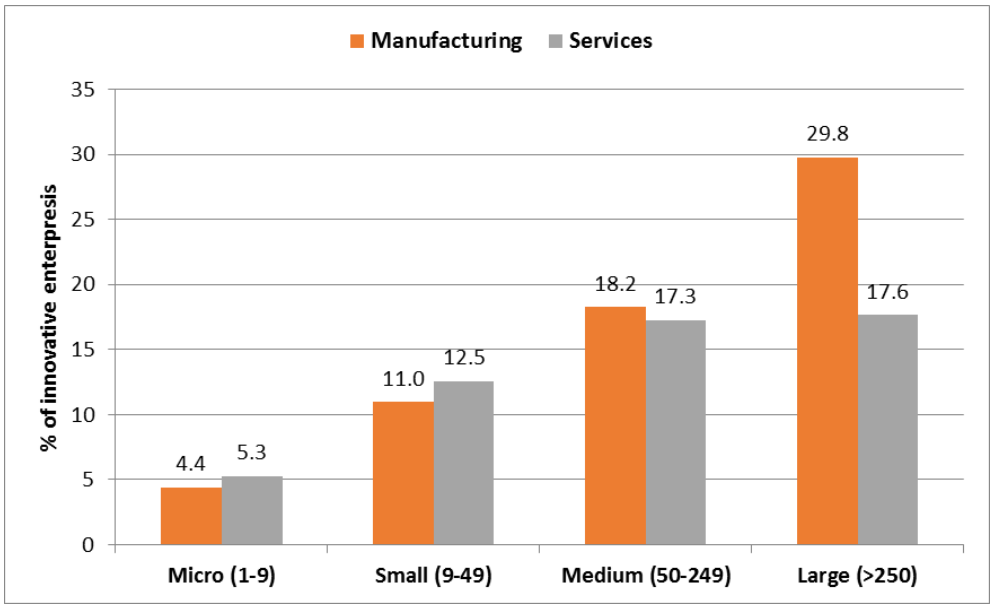

Fig.1 Innovation Activity of firms according to size of firms

3.2. Sources of information for innovation activities

The source of information for innovative activity is the sources that provided information for innovation projects or contributed to the completion of existing innovation projects. The Oslo Manual OECD points out the essence of information sources of innovation activity (OECD and Eurostat, 2005). Table 2 focuses on the sources of information regarded by Egyptian innovative-active firms as "high".

Table 1. Sources of information for innovation rated as highly important by innovative firms

Source of information		Economic activity		
		All activities	Manufacturing	Services
Internal Sources	Sources within your enterprise or enterprise group	81.40%	84.40%	66.70%
Market Sources	Suppliers of equipment, materials, components or software	32.56%	32.50%	20.80%
	Clients or customers	22.48%	20%	33.30%
	Competitors or other enterprises in your sector	22.48%	20%	33.30%
Institutional Sources	Consultants, commercial labs or private R&D institutes	3.10%	2.90%	4.20%
	Universities	1.55%	1.90%	0.00%
	Research institutes	0.78%	1%	0.00%
Other Sources	Conferences, trade fairs, exhibitions	22.48%	24.80%	12.50%
	Scientific journals and trade/technical publications	13.18%	16.20%	0.00%
	Professional and industry associations	5.43%	6.70%	0.00%

The Egyptian innovation-active enterprises found the ideas of their employees as the most important source of information for starting up Innovative activity, The significance of this internal source was confirmed by 84.4% of manufacturing and 66.7% of the service sectors, making it the most important source. The most of innovative firms in developed countries (Finland, France, and Norway) during the period of 2008 -2010 mainly depend on their own information for creation of innovation that means they are well knowledge employees (see http://data.uis.unesco.org/OECDstat_metadata[1]).

One of the more robust observations, the institutional sources were recognized by the Egyptian innovation-active firms as the least important, only 1.55% of innovative firms highly depend on universities for creating or

developing innovation. This result is quite alarming, because it shows a large gap of cooperation between industry and the scientific organizations in Egypt (universities and research centers).

3.3. Factors, which are hampering innovation activities

It is important for Egypt to be able to measure the factors that hamper innovation activities; analyze and solve it to increase innovation performance. A large percent of Egyptian firms did not perform any type of innovation activities. Firms were asked to rate the degree to which a number of specific factors hampered their innovation activities during the period 2008 – 2010.

Reasons for not starting innovation activities at all, or factors that slow innovation activity or have a negative effect on expected results include market, knowledge and cost factors, such as high costs or lack of demand, lack of skilled personnel or knowledge. Figure (2) shows the factors hampering innovation activities in non-innovative firms, 33.1% of non-innovative firms indicated that developing innovative activities within their firms were hampered or restrained because of a lack of information on markets.

The second most cited factor was a lack of information on technology (25.4%), although non-innovative firms have lack of information on technology to create or develop innovation, they did not cooperate with universities or research institutions to acquire the deficiency of information. The third was that uncertain demand for innovative goods and services (21.2%)

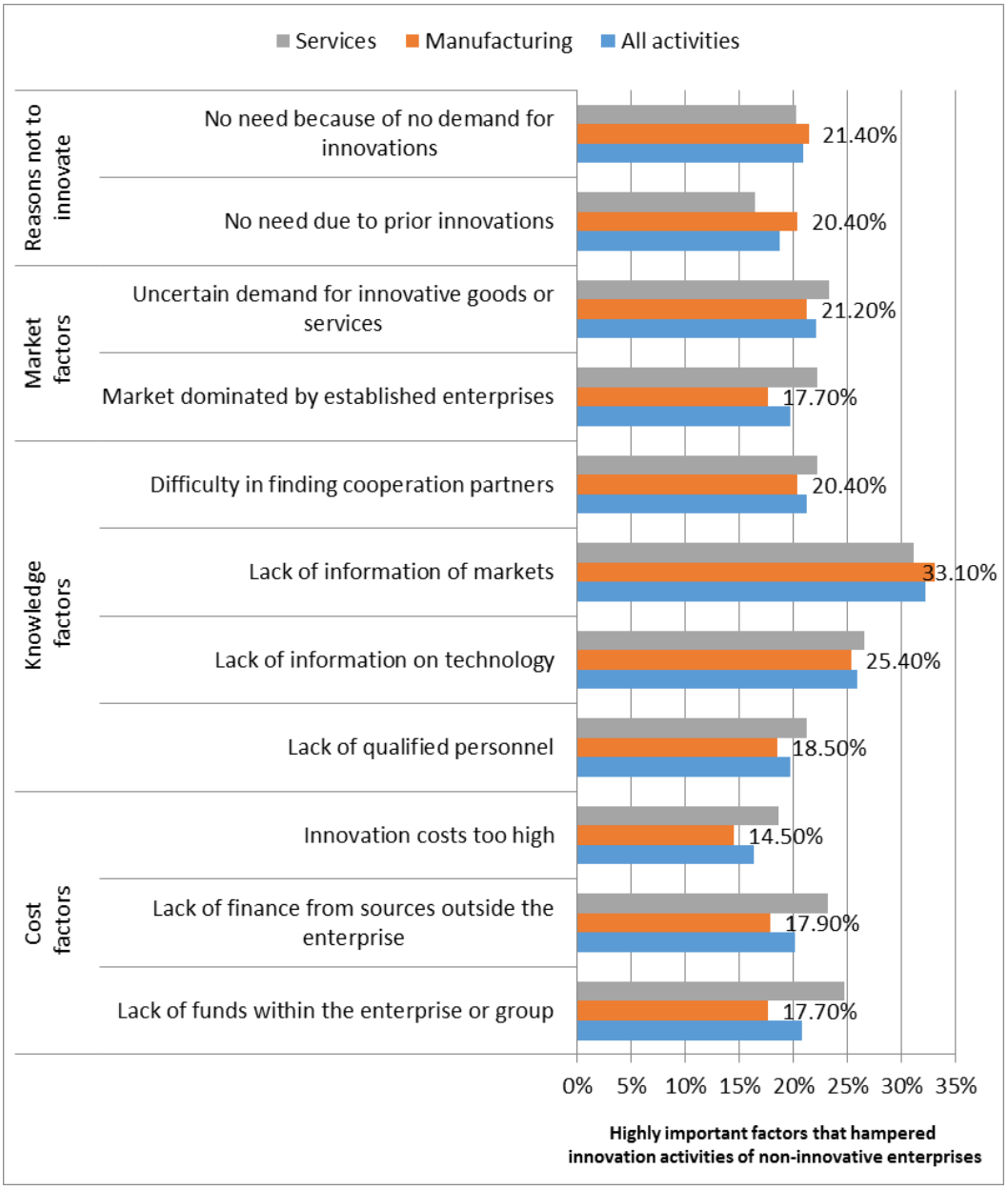

Fig.2 Highly important factors that hampered innovation activities of non-innovative firms (%), 2008–2010

3.4 Innovation Rate

Innovation activities include all scientific, technological, organizational, financial, and commercial steps that actually lead, or are intended to lead, to the implementation of innovations. Some of these activities may be innovative in their own right, while others are not novel, but are necessary for implementation (8). 2022 firms have been covered by the Egyptian National innovation survey, 11.3% of Egyptian Firms have at least one type of innovation (product – process – organizational –marketing) with different economic activities: manufacturing and services, while 88.7 % of Firms have not any type of innovation.

The innovation rate was defined as the proportion of firms that undertook any innovation activities during the last three financial years (2008-2010). Table (1) summarizes the result, 12.8% of manufacturing firms are innovative, compared with 9.4% of service firms. Almost 6.5% of all firms had both product and process innovations, while 4.2% had only product innovations.

Table 1. Percentages of innovative and non-innovative firms in Egypt, 2008–2010

	Total	Manufacturing	Services
Firms with innovation activity	11.3%	12.8%	9.4%
Product only innovators	4.2%	6.0%	1.8%
Process only innovators	5.8%	8.3%	2.5%
Product and process innovators	6.5%	9.3%	2.9%
Firms without innovation activity	88.7%	87.2%	90.6%

Conclusions

Such studies would also serve, for the users (planners, decision makers, managers,.. etc.) as tools for setting up S&T policies and information based decisions crucial in increasing competitive capacities of some strategic sectors in Egypt for global markets.

More surveys over longer periods are needed to gather data to try rebuild strong cooperation between business and science in Egypt and to measure the development of innovation. There was a strong relationship between the size of enterprises and the rate of innovation. Most of firms depend on their employment to create innovation and not going to university or research centers.

Appendix A. Basic definitions (OECD, 2005)

Innovation: Implementation of a new or significantly improved product, process, organizational method, or marketing method by an enterprise. An innovation must be new to the enterprise, although it could already have been implemented by other enterprises.

Marketing innovation: Implementation of a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing.

Organizational innovation: Implementation of a new organizational method in the enterprise's business practices, workplace organization, or external relations.

Process innovation: Implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software.

Product innovation: Implementation of a good or service that is new or significantly improved with respect to its characteristics or intended use. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness, or other functional characteristics.

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ENTREPRENEURSHIP AND REGIONAL DEVELOPMENT: CASE OF FASHION INDUSTRY GROWTH IN SOUTH AFRICA

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Abstract. The purpose of this paper is to share the experiential learning of working within the Creative industries within a local municipality. The Fashion Industry is a sub-sector of both the creative industries and the clothing and textiles industries, and provides opportunities for innovation and creativity in the manufacturing, textiles and apparel accessories. This paper looks at the policy imperative to intervene within the Creative industries at a local level and the institutional arrangements that govern the intervention strategy. The context of the industry prior to the key interventions and the growth over the support period is considered. The paper further explores key challenges in the implementation model, historically inherited weaknesses of the sector and critical impediments to an inclusive developmental focus. The paper proposes that the feedback loop and ability to redefine strategies for implementation can act to mitigate areas of stagnation, however stakeholder engagement and participation remains a key challenge given traditional and new partisan interests. The paper concludes by suggesting that the *special purpose vehicle model* for industrial development holds the best potential for impact and scope however the complexities of managing interventions within the creative context remains a restraining factor.
Keywords: Creative Industries, Fashion, Clusters, Local context

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JEL Classifications: O3, L23, L26

1. Introduction

Entrepreneurship is one of the most important driving forces of regional development. Factors enhancing sustainability of entrepreneurial activities are being elaborated by scientists, policy makers, market participants and other stakeholders (e.g. (Laužikas, Mokšeckienė. 2013; Wahl, Prause 2013; Tvaronavičienė 2014; Figurska 2014; Wahl 2014; Tarabkova 2014; Caurkubule, Rubanovskis 2014; Lankauskienė 2014; Grubicka, J.; Matuska, E. 2015).

In this paper case study of peculiarities of fashion industry in South Africa is to be elaborated. We will tackle on the Ethekwini Municipality, which is the 2nd largest manufacturing hub in South Africa and the 2nd largest contributor to the economy of South Africa (KZN Top Business, 2015). Ethekwini is the largest metro in the

region of KwaZulu Natal (KZN), on the East Coast of Africa with its port city of Durban. The region has the highest unemployed and indigent population of South Africa. The City of Durban has a population of 3.34 million people. Within this context, a small rates base has to leverage services and opportunities cross the various sectoral priorities, including the provision of basic services.

2. Context

2.1. Global

The Clothing and Textiles industry is a significant part of the global economy and is growing globally with consumer expenditure in the industry rising by 371.69% from 1995 to 2010. The global clothing and textile market is valued at around USD 400 billion and is expected to grow 25% by 2020 (Dhilwayo 2012).

2.2. National

The South African clothing, textile and fashions sectors are highly diverse in nature and comprise of a combination of both inexpensive, mass produced basics and higher, value-added fashion and tailored garments from specialised textiles. The declining value of the South African clothing and textile industry due to:

- Weakening Rand / Dollar Value;
- Global Recession
- High Labour costs
- Import bias
- The low availability of skilled and experienced labour;
- Limited Access to technology;
- Limited Access to raw materials by designers;
- Lack of access to support services for rural designers;
- Lack of international competitiveness;
- Funding and financing constraints.

This has resulted in a reduction in employment numbers in the sector from 106 898 (formal) sector employees in 1997 to 51 427 in 2012 (KZNFC BP, 2014). In KwaZulu Natal, clothing and textiles contributes 15% to the manufacturing sector, comprising textiles (54%) at R 1.6 billion and Clothing (27%) at R 0.6 billion (Stats SA, 2007). The period between 2002 to 2012 saw not only a rapid growth in the imports of fashion goods but a steady decrease in exports (KZNFC BP, 2014)

Nearly a third of South Africa's manufactured exports originate in KZN, however the weakening of the Rand led to high input costs as most of our textiles and trims are imported. This meant that the local industry couldn't compete with imports from China and which land in South Africa at a far lower cost than the local industry can produce.

National Policy Framework

Between 2003 and 2007 the National Department of Trade and Industry (DTI) introduced the Customised Sector Programmes (CSP 2003) which looked at the value chain of each sector and developed strategies to move the industries forward in a post-apartheid economy. The CSP first introduced the notion of Cluster Development and identified Fashion as a critical factor to the sustained development of the Clothing and Textiles industry; promoting provincial clusters funded by provincial and local government in order to benchmark and add value to firm level competitiveness.

Socio-Political

In South Africa, approximately 90% of the employees of this sector are women – indicating high potential for equitable and inclusive growth from this industry. This sector is extremely critical to the economic and social emancipation of this previously disadvantaged portion of the population and has been given priority through national government's policy interventions. Therefore it is essential that focus be turned to growing employment numbers in the industry.

Local Context-eThekwini

The Fashion Sector is particularly relevant for the Ethekwini Municipality as it forms part of the value chain of the Clothing and Textiles, Leather and Footwear Sector which is the largest contributor to manufacturing sector which makes up the largest portion of the GDP in Ethekwini and is the biggest employer within the manufacturing Industries.

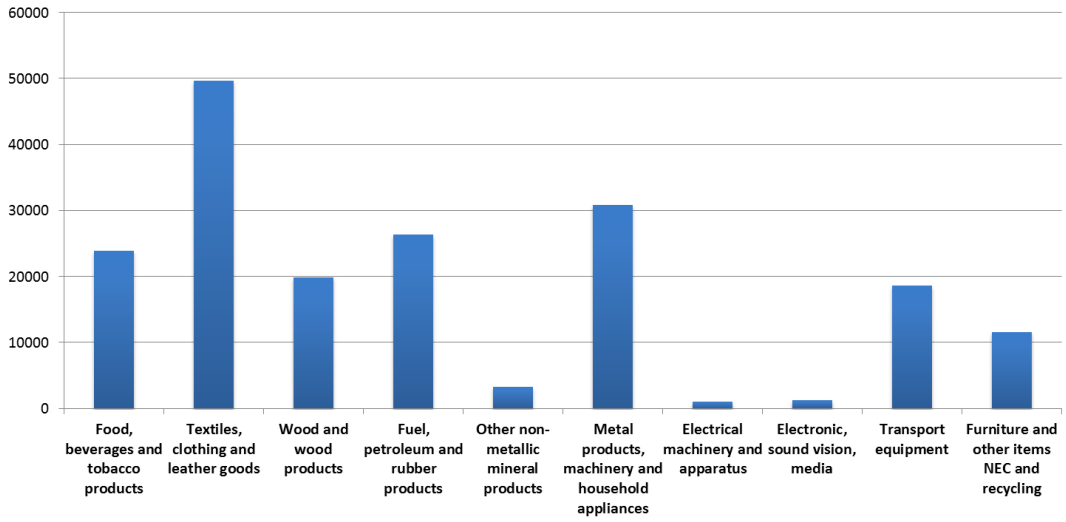

Fig 1. Textiles, Clothing and Leather goods is the highest contributor to employment in the manufacturing sector in Ethewkini

Source: PSIR, Datasets, 2015

The Economic Development Unit through the national industrial policy identified sectors and value-chains that had the most potential for labour absorption due to the low barriers of entry particularly given the low skills profile of the unemployed population within the metro region. While the fashion sector is a vital part of the Creative industries, it functions as the '*innovation aspect' (*Pather 2015; ECOD Report, 2014) of the Clothing and Textiles value chain, which is key to the absorption of labour; due to its low entry level and its labour intensive nature, has the potential to employ high numbers of people. The current employment profile in the industry is predominantly black (African, Indian and Coloured) women.
Through the CSP and the work of Michael Porter's ground breaking report on the Competitive Advantage of Nations, 1990, the city started working within the Cluster paradigm for industrial development in 2005, which was critical to the establishment of the Automotive Cluster and Clothing and Textiles Cluster. In 2009 the Department investigated the need to establish a cluster within the fashion Industry and undertook industry engagement. The KZNFC was established in 2009 and has started to develop an industry platform and network of designers across the municipality and the KZN region.

Prior to this, the industry was small and limited to a few designers with a label. Emerging young designers had no exposure at all. Numerous design schools produced graduates however support to designers into the market was limited. Input costs (materials and trims), infrastructure and lack of exposure at major retailers or boutiques

made it difficult to establish a brand presence, which is a key driver in the industry. Access to other parts of the value chain such as beadwork crafters or textile suppliers are difficult to reach for emerging designers and SMMEs without the support of an organisation like the KZNFC.

The need for an industry body was clear and established through these documents, which engaged the fashion industry at national provincial and local levels. The DTI promoted a strategic vision for the establishment of a South African National Fashion Cluster once the establishment of the 3 regional clusters (Western Cape, KZN and Gauteng) was fully functional.

Project managers were appointed to develop an industry Business Plan that took cognisance of the economic development needs of job creation and value chain alignment of government and the quality, training and data and technological needs of the industry- in various packaged programmes. While the development of this entity can be attributed to the city, the registration of the name played an important part in negotiating and leveraging a joint partnership with the KZN Provincial government which resulted in a 50/50 funding model developed since 2011. The Business plan is reviewed with Industry involvement on a 3 year basis which coincides with the medium term funding of the local ad provincial funders.

3. Interventions in Sector Development by the Ethekwini Municipality

The City's support of the KZN Clothing and Textiles Cluster since 2005 has brought about significant changes within the industry seen within the last year. Interventions of the cluster has influenced national grant funding to recapitalise the industry, and retailer lobbying based on a value proposition of the Quick Response Model as an alternative to bulk cheap imports has set the scene for increased demand in local manufacturing capabilities and therefore local design content.
To re-inject competitiveness into the industry- the opportunities and initiatives between both clusters (KZNCTC and the KZNFC) must be consolidated through increased and determined resource allocation and support (Gannon 2015). The KZNFC provides opportunities for local designers and manufacturers, which together with the assistance and the facilitation of the Council, must be synergised to achieve maxim benefit.
The KZNFC has extended support and integrated other promising players such as SMMEs, co-ops, designers as well as creating linkages between Cut, make and Trim (CMT's) and clothing and textile firms. The Council is mandated to address the challenges of SMME development, value chain linkages and transformation in the sector. The last funding cycle saw a real growth in the service delivered to the sector, a greater awareness and footprint created by the cluster, and support extended to designers across KZN.

3.1 Institutional Structure

The KZN Fashion Council structure is as a non-profit company in terms of the Company's Act of South Africa and has a Board of Directors. The board is made up of industry members, the position is voluntary. The funders sit on the Board as Ex Officio members. The Managing Director is appointed by the board and the rest of the organogram is appointed by the managing director.

A Memorandum of Agreement governs relationship between the Ethekwini Municipality and the KZNFC. This agreement sets out the deliverables and the responsibilities of the cluster in respect of the public funding it receives. The Agreement is based on the acceptance and interventions outlined in the Business Plan. The KZNFC is expected to manage the relationship with the funders who monitor and evaluate the delivery and expenditure on a monthly basis and at the Quarterly Board meetings. A separate agreement governs the relationship between the Provincial government and the cluster.

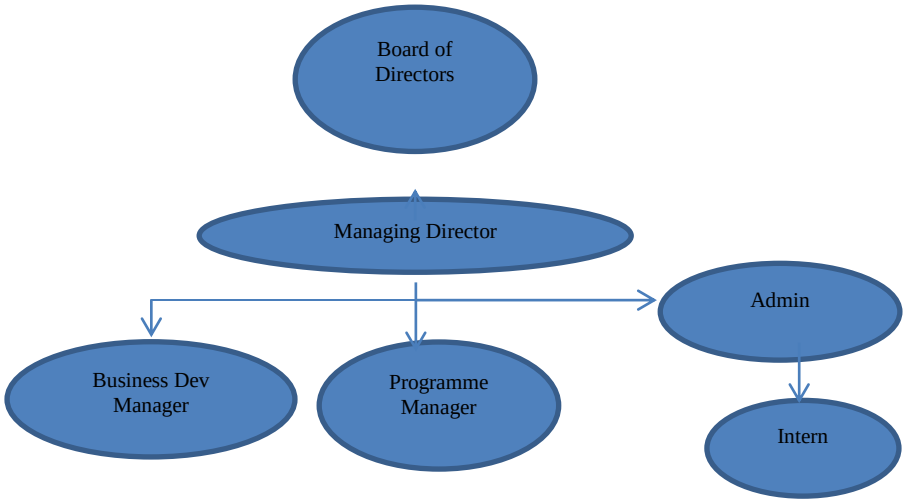

Figure 2
Source: Organogram, Strategy Report KZNFC, 2015

The Memorandum of Agreement has been signed for the next funding period 2015/16- 2017/18. The SPV has a Board of Directors with a skill related portfolio, CMT, design, Legal, Finance, Retail and Media. The funding support is on a rolling 3 year medium term budget. In year 3 the cluster undertakes sector research that engages the industry to secure the relevance of the interventions over the next period of funding. The last 3 year cycle focussed in developing a database of industry players including- labour, tertiary institutions, emerging and established designers, as well as creating value chain partnerships with the Clothing and Textiles Cluster and supporting institutions such as the national Department of Trade and Industry, provincial Trade and Investment KZN and national Department of Arts and Culture.

3.2 Programmes And Achievements

Since its inception, the KZNFC has run 3 Strategic Programmes:

- Networking & Learning;
- Market Access and
- Market Intelligence;
- *Fashion Hub*

3.2.1 Networking and Learning

The Council delivers revolving workshops in several districts around the province and the Ethekwini Municipality. The workshops achieve information sharing and brand awareness and well as recruitment for the council's database. The focus of the workshops in the outer-lying districts are on skills such as Hat-making, fabric dyeing and pattern-making- to enable sustainable businesses..

3.2.2 Market Access

In the 2013/14 Financial period, the Council increased its database of designers to 820 across the province and allied services to 492 members, popularised its website and developed a strong presence on social media- all of which allows young designers throughout KZN access to industry news and opportunities.

- facilitated the access of 28 designers to SA Fashion Week,
- Five (5) designers - chosen to stock a major retail chain store – Edgars, Sandton Johannesburg
- One young 1 designer is now exporting to Zimbabwe
- KZNFC designer won an international award- SAFW Lufthansa Young Designer Award at the national SA Fashion Week.

- Innovative pilot capacity building programme ***21 Steps to Retail*** (from pattern making to business)
- A quirky approach ***Street Cred Competition***, which runs on social media. The competition encourages public participation through Facebook and Twitter. The project raises awareness of local designers, added a fun element to being fashionable on the street, and creates a buzz around the KZNFC brand.

3.2.3 Market Intelligence

The Council invested in the Worth Style Network (WGSN) trend software from 2012 which allows access to next season's trends, colour pallet and inspirations. This programme has been made available to districts on a rotating basis by linking with tertiary institutions and Local Economic Development offices

3.2.4 Fashion Hub

While this project is included under the KZNFC, it is externally driven through the Sector Programme's Department with national and provincial partners DAC, TIKZN and the **edeta**. Five (5) city owned green fields sites have been identified for this project and concept designs and bulk costings have been done. A service provider has been appointed to start the establishment of the entity and to begin programme development. The project was submitted to the Development Bank of South Africa (DBSA) and is awaiting a decision for packaging. The project cost is estimated at R71 million.

This project is to develop infrastructure for the Fashion Design industry by providing incubation space with access to machinery and technology at nominal costs that will enable business entrepreneurs to develop and grow their own brands. This inner city incubator and fashion hub with supplementary technical and business programmes can assist in the development and strengthening of the design part of the clothing and textiles value-chain. It will also be a point of contact for the industry for retailers and buyers and a research and development space.

4. Challenges

4.1 Competing Interests

In 2009 a sister Department of the Economic Development Department hosted a Business Fair which allows SMMES across the municipality to exhibit over a 3 days platform. The KZNFC partnered to host a Fashion Show to add to the programme content. This was done successfully and this partnership continued for 3 years.
Beyond 2011 the sister department Business Support, Markets and Tourism Units pursued this Fashion event until it has become a standalone event on the Ethekwini calendar. This department has also begun an exchange project that takes young designers to Milan for 3 weeks to expose them to workshops and training. The development of these two projects has heralded challenges for the KZNFC due to the departmental decision to drive the projects without any relationship to the council. While initial discussions were held, there has been a failure to co-ordinate and develop a strong and synergistic working relationship.
Designers in Ethekwini have been quick to access both opportunities. The Creative Industries from an implementing agency perspective brings together creative talent and particularly through showcases offers a glamorised environment albeit that these are generally trade platforms. This peculiarity has driven the actions on the side of vested interests given the high profile nature of a standalone event, from the implementing department. This approach has effectively divided rather than consolidated the City's interests and resources within this sector.
The result of this has been the perception of too many players in the fashion sector space in eThekwini, the dis-empowerment of the crucial role that the KZNFC was established to undertake and wasteful expenditure through a project and event led basis that does not develop the industry but contributes to a dilution of the quality and consistency required to develop ranges and the expertise it takes to showcase at provincial, national and international events. The industry has come out strongly to condemn the proliferation of fashion events which is a key reason South Africa does not attract international buyers. Further while providing showcases for young

and emerging designers is critical to their development, the lack of consistency, mentorship and linkages into the broader industry and value-chain and strategic sector development makes the showcase meaningless.
While it should not be the intention of the KZNFC to take ownership of every fashion event and project, the company is the mandated industry body to provide guidelines and mentorship to the industry and can and should be relied on to develop standards of quality for productions and ranges.
The establishment of a single entity was determined by the need to create a platform for the industry, a point of entry and to bring together what has been described as a fragmented industry. Ethekwini, had a major fashion event through the efforts of a private entrepreneur, the MTN Durban Fashion Week, this annual event is no longer being held. Small, stand-alone events and conflicting City supported fashion related events- that do not connect to the seasonal trends in fashion or have long term integrated sectoral benefit, have sought to further fragment and confuse the industry without having any positive impact.
The KZNFC was established through industry engagement and has a long term vision to develop the sector and contribute to the incremental growth of the industry by linking into the creative industries and the Clothing and textiles sectors. It has also directly responded to the issue of fragmentation by providing a platform through which all fashion related events can be delivered. The council is a regional body that serves as the umbrella body of support for the industry and has the functionality and industry linkages to deliver on an Annual Event that has long term impact consolidating the programmes that it already delivers and thereby positioning Ethekwini as a fashion destination internationally.

5. The Rationale For The KZNFC

Argument for the Cluster Model. "The set-up and support to industry clusters through the alignment of national, provincial and local Customised Sector Programme (CSP) initiatives is a vital intervention to creatively accelerate economic development in KwaZulu Natal. It has been particularly welcome in the fashion and design industry as a means to give recognition to the important economic and social contributions that emanate from the fashion and design sector. The establishment of the KwaZulu Natal Fashion Council is a significant milestone. It recognises the important opportunity for alignment within the sector, and specifically will seek to encourage stakeholders to adopt a more consistent and significant value aligned approach within the clothing value chain. It further recognises that a multi-sectoral commitment to value chain alignment is important for strengthening the social, economic and creative talents of emerging and established fashion designers to better contribute to sustainable economic development and enhancing the productivity and competitiveness of the industry in the short, medium and long term." (KZNFC BP, 2011)
The KZN Fashion Council invokes an integrated strategy, and is committed to advancing the collective goals of the Clothing and Textile Cluster, the Craft Cluster and allied Provincial and Local Economic Development initiatives. It is an entity that seeks to encourage a transformational discourse within the sector, premised on principles of social inclusion, social and ethical accountability, good governance, access to opportunity and economic advancement.
VISION: KwaZulu-Natal Fashion Council is the institutional driver of innovative fashion and design in the province that creates a destination that is internationally competitive and sustainable, thereby creating a better life for all.
MISSION: The KZN Fashion Council (KZNFC) in pursuance of its vision seeks to effectively organise and coordinate development and support for the fashion and design sector that contributes to the competitiveness of the Clothing and Textile industry as a whole" (.KZNFC BP, August 2010)
The purpose of the funding is to support the competitiveness of the industry, in the broader sense, to the mutual benefit of the partners. The establishment of the (Non Profit) company KZN Fashion Council (KZNFC) is in line with national government's sector partnership approach to industry development. This entity is the industry driver that has started to and will continue to develop and grow the sector.
The proposed 3 year business plan (Annexure B) has been developed through industry engagement at 4 targeted workshops and stakeholder interviews. The 4 core programmes 1) Market Intelligence; 2) Networking and Information Sessions; 3) Business and Skills Development and 4) Access to Markets and Industry Partnerships- aim to strengthen and consolidate the work that has been achieved to date and concentrate on bridging gaps that have been identified through constant learning and feedback.

The next 3 year phase unpacked in the Business Plan will see programmes entrenching development support and starting to realign our young entrepreneurs for the export market aiming at SADAC, BRICS, Australia- now that a national South African retailer has a significant retail space in that market as well as tested opportunities like Berlin and Switzerland- established and developed to improve the productivity and competitiveness of the industry in the short, medium and long term.

6. Conceptual Model

In key mature industry sectors, the cluster formation has driven growth, competencies and competitiveness. However with fledgling industries the approach needs to be more nurturing. The model that has been used here therefore is one of driving the industry through programmes, projects and networking to enable it to strengthen and grow its own impetus (Pather, A. ECOD report, 2011).

The KZNFC non-profit company is the entity that responds to the model of international best practise which informs us that a local special purpose vehicle in partnership with key stakeholders from the industrial sector and different tiers of government is best suited to unlock developmental opportunities (Arjunan 2010). This industry body whilst still accountable to government as a key funder has the freedom to engage directly with all stakeholders and focus all its efforts in the implementation of key interventions that will provide the best options for its membership. Furthermore while core funding comes from the governmental partners the organisational structure of the Council allows it to pursue partnerships with independent agencies, organisations and industry to leverage resources including alternate funding for its projects and programmes towards the development of the sector. In the 2013/14 financial year, **R1 092 944 million** in sponsorship was leveraged by the KZNFC through the private sector for its programmes.

The work that the KZNFC has been engaged in has made significant impact in the industry and has started to establish a pool of young talent that is getting recognised for its talent and skill through consistent exposure to training, skills development, business development and market -all of which is driven through targeted data gathering and constant feedback from the industry. This feedback loop is on-going within the cluster model and therefore relevant and directly responsive to the needs of the industry.

"The Cluster approach is the action research model in its functional form"
(Pather 2015)

The monitoring and evaluation that is also intrinsic to the manner of establishment through a governmental entity in this case the Ethekwini Municipality strengthens the veracity of the initiative. The development of the sector has a threefold agenda – growth, employment and competitiveness.

By intervening in the Fashion industry, government has the opportunity to pursue this agenda and achieve transformation in the process. The KZNFC will develop the sector by focusing on:

i) Added Economic Value
ii) Employment for the Marginalised
iii) Design: A Source of Competitiveness
iv) Developing Durban as a 'Fashion Destination'

The KZNFC acts on the **Key Action Programme 4** of the Clothing and Textiles CSP as it relates to "innovation, design and value addition". In order to improve operational competitiveness to world class performance levels it is necessary to develop and enhance innovation, creativity, lead time reductions and locational advantages, which will be done through the creation of a fashion design platform for the region.

The Economic Development Unit of the Ethekwini Municipality is working on developing the supporting infrastructure for the Fashion Sector the Durban Fashion Hub, which will ensure that there is an integrated sectoral approach to the development of this key sector.

Cluster model as international best practise for industrial development

- Clusters are either geographical concentrations or virtual platforms of sector specific businesses or sector value chains
- In Clusters- networks are enhanced to support co-operation through partnerships with value chain members, tertiary institutions and public bodies
- Successful Clusters can catalyse improvements in productivity, through increases in efficiencies and quality.
- Clusters provide an environment conducive to new enterprise development, and strengthens the interface between research and its application enabling rapid innovation.
- Clusters are able to make co-ordinated input into policy process, increasing the effectiveness of the outcomes and concentrate forms of government and private sector support to facilitate optimal use of incentives and services
- This model has been assessed by the DTI and National Treasury as a successful approach to industrial development and helping overcome the challenges that the manufacturing sector faces
- This model is internationally benchmarked and recognised by the World Bank, Unido, the ILO, OECD and UNCTAD
- The Cluster programmes have influenced the trajectory of the manufacturing sectors towards growing efficiencies competitiveness and productivity

(ERLN, Issue 2)

Conclusion

Within the creative industries there are driving forces beyond socio political and contextual needs. The individual aspirations and adjacent agendas of co-mandated departments/entities coupled with the personalisation of the creative talent can destabilise sectoral economic initiatives.
Practitioners need to be mindful of the glamorisation pull of the fashion industry that could override economic and industrial policy imperatives in favour of individual agendas.

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EDUCATION PROGRAMMES FOR ENTREPRENEURS IN THE CREATIVE INDUSTRIES IN ST. PETERSBURG

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Abstract. One of the key factors considered to influence the choice of entrepreneurship as a career is creativity. Entrepreneurship and innovative behaviour have long been associated with creativity (Amabile 1996), and recent literature suggests that creative individuals are more likely to engage in entrepreneurial activities (Ward 2004). We investigate several programmes for creative entrepreneurs launched by creative organisations and "third spaces" to understand the key topics, competencies, and methods of education practiced during these courses. This effort is important because creative and cultural industries (CCI) need a workforce both trained and industry-ready for their development. As a result of this research, we propose recommendations for future entrepreneurial educational programmes at higher education institutions and creative centres.

Keywords: entrepreneurial education, creative industries, third spaces, Russia

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JEL Classifications: Z1

1. Introduction

Creative and cultural industries have attracted the interest of researchers and policymakers for the few last decades, as they are sectors of the economy with high rates of economic growth, productivity and innovation development. (Cunningham, Potts 2015; Throsby 2015). The creative workforce has been the topic of research for many scholars, and the role of higher education in developing this workforce is an important area of study (Bakhshi *et al*. 2013; Comunian, Gilmore 2015; Faggian *et al*. 2013).

Managing creative people is a very difficult task because the nature of creative activities varies greatly between industries. Creative people are not used to limiting their creative process to timeframes, and often they are inspired by non-commercial goals and motivations. However, nevertheless, the assessment of creative projects, like that of many others, focuses on the results of the work. Hence, a broad discussion that includes an exploration of the possible dichotomy between the artist and the entrepreneur at the individual level is well presented in the literature (Caves 2000). Therefore, the topic of creative and cultural entrepreneurship (e.g., the motivation for and roles of creative team members, and the skills and capabilities of creative leaders) tends to be

interesting and complicated. Entrepreneurial creativity leads to new methods of learning and mastering business skills. The question of whether entrepreneurs are born or made is no longer that much debated. Policy makers and researchers tend to accept the view that entrepreneurship can be taught, and compulsory courses on entrepreneurship were included at universities on graduate level in many countries (Oftedal *et al*. 2014).

However, in the entrepreneurship literature, there is a conspicuous gap in the theorisation of and application of entrepreneurship in regard to the creative industry sector (De Bruin 2005). Moreover, creative and cultural entrepreneurship includes not only the aspects of individual entrepreneurship but much more broadly, those of state entrepreneurship and municipal-community entrepreneurship (De Bruin 2005), thus underpinning the social roles and additional effects of creative and cultural activities.

One of the broad approaches to entrepreneurship emphasises the role of the entrepreneur as an organiser of production factors (Glancey, McQuaid 2000). Any creative production requires the organisation and coordination of a range of creative inputs (associated with people from different artistic professions; and ideas). These creative talents have to be combined with significant inputs such as the financing for a project.

Thus, the education system faces great challenges because the cultural and creative industries have become more commercial and business oriented. The growth of entrepreneurship programmes has been observed since the early 1990s and applies to all sectors of the economy. At leading European and North American universities, as well as in Australia and Asia, there are currently many programmes available in the business in creative industries at the graduate level. One of the main objectives of these programmes is to inform students about the regular activities of individual entrepreneurs and to identify entrepreneurial opportunities (Ucbasaran *et al*. 2008; Caurkubule, Rubanovskis 2014; Tarabkova 2014; Išoratė *et al*. 2014; Figurska 2014; Bileišis 2014).

Project-based education, which consists of students conducting their own projects, has been designed to show how disciplines such as marketing, financial management, accounting may be used in daily work. In addition, several studies suggest that educational entrepreneurship programmes increases students' interest in engaging in entrepreneurial activities (Pittaway, Cope 2007).

When briefly describing higher education in Russia, we should note that universities have a narrow focus in building their curriculums. In our previous publications, we noted the fact that business and management courses and programmes, especially in entrepreneurship, have not been offered at art universities (Matetskaya *et al.* 2014). Meanwhile, the latest research using the concept of knowledge transfer brings the new arguments (from the perspective of ‘creative human capital’ and shared research and innovation) that arts and humanities departments have a positive and rich impact on society and provide good value for money (Comunian 2015). The growing role played by creative human capital and shared spaces corresponds to the emergence of more organic models of engagement, where new knowledge can be co-created and developed across and beyond academia. (Comunian 2015).

Despite the fact that training programmes in the fields of management, marketing and entrepreneurship are offered in many art high schools, generally, the creative institutions focus more on training "artisans" than managers or entrepreneurs. One of the aspects of the formation of such a curriculum we would like to highlight is the theme of leadership in creative teams and in building an individual’s career. Indeed, information for start-up entrepreneurs (such as how to register an enterprise and operational procedures) is available through many sources, such as the internet, consulting and educational organisations, and even by 'word-of-mouth'. At the same time, skills related to team building and the management of creative professionals seem to be neglected by educational programmes and consulting.

Thus, the purpose of this paper is to examine the educational programmes in creative fields, realised by non-government educational organisations and third spaces in St. Petersburg. We aim to identify the major methods of learning and to assess their effectiveness in terms of learning outcomes as well as to determine the most popular topics and current issues related to the development of CCI business skills.

The research methodology is based on qualitative methods (13 in-depth telephone and personal interviews with the directors of educational programmes). Based on our analysis of the literature and current market trends, we make recommendations on how to fill the gaps in educational programmes for creative teams and entrepreneurs.

2. The history of creative industries in Russia and the role of education in creative economy development

The creative industries are defined as "those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (DCMS 1998: 2) and include a range of sectors: advertising, architecture, arts and antique markets, crafts, design and designer fashion, film, video and photography, software, computer games and electronic publishing, music and the visual and performing arts, publishing, television, and radio.

The term 'creative economy' is considered by many to be an evolving concept (UNCTAD/UNDP, 2008), an umbrella term that aims to capture a set of interrelated activities based around the production, distribution and consumption of creative and cultural goods (and ideas) that have a cultural, social and economic impact. Two core components of the creative economy are the creative industries (DCMS, 1998) and the (publically funded) arts and cultural sector, (Arts Council of England 2014), but other interconnected activities (for example tourism) are often included. Art and cultural organisations have traditionally been part of the public sector, and the new market-oriented governance on the micro and macro levels is associated has encountered many difficulties.

The concept of creative industries and its implementation in Russia has been developed since the 2000s, when the first research and educational projects were initiated in Moscow and St. Petersburg. As in many other countries, a significant role in these processes was played by international agencies (such as Euclid and Comedia), which provided comprehensive assistance in the development of the creative potential of these cities (O'Connor 2004). Since its establishment in 2004, the Coordination Council for the development of creative industries, as well as regional centres and agencies, has supported and explored the creative industries in Russia. The development of business projects in the creative industries was also initially fuelled by financial and informational support from international programmes, for example, the TACIS programme[3] (2000; 2002), and special grants from the Soros Foundation. However, these activities were not widely supported at the national or city level, so they had rather short-term outcomes. One of the results of these international projects was the establishment of several educational programmes for art managers and creative entrepreneurs. Today in St. Petersburg, more than 15 non-government organisations have educational courses and seminars (Table 1).

Table 1. The main organisations and educational programmes for creative entrepreneurs in St. Petersburg[4]

№	Name of the organisation	Years of work	Educational and related activities
1	Institute for cultural programs Saint-Petersburg* http://www.spbicp.ru/content41	Since 1999	International Training Programs on Management of Music Festivals and Event management
2	The St. Petersburg Pro Arte Foundation For Culture And Arts* http://www.proarte.ru/en/education/	Since 1999	School For Young Artists School Of Art Journalism Museum Design Education Course
3	NGO "INTERSTUDIO" http://old.interstudio.ru/eng/	Since 2003-untill 2013	Research conferences and educational seminars, professional meetings and consultancy.
4	Creative Industries Agency http://creativeducation.ru (Moscow)	Since 2008	Distance education program CREATIVE ENTREPRENEUR SCHOOL Educational program "Creating a business in the creative

[3] Technical Assistance to the Commonwealth of Independent States" programme

[4] In the table those organisations that have not been interviewed during the research are marked with *

			industries"; Official operator of Creative Business Cup Russia Summer schools Seminars
5	StArtAcademy, center of graphics, drawings and design http://startacademy.ru/studio	Since 2009	Artists workshops and courses on art management and gallery business
6	Junior Chamber International (Saint Petersburg) http://jcispb.com/en/about-jci	Since 2009	Training, social and charity projects, start-up business consulting, international conferences. Annual program within universities "Business for me"
7	ArtExplorer Group http://www.artexplorer.ru/	Since 2009	Art business consulting, educational courses "Art is business"
8	Educational centre "Benua House" http://www.centrbenua.ru	Since 2010	Educational projects in arts, culture, media, and creative industries, more than 5 annual programs. Among most popular are "Creative space as a business project", "How to open your bar or restaurant", "Management of cultural projects", "Fashion business"
9	NGO "Kaykino Creative Projects " http://creaprok.com/en/	Since 2010	Business consulting (marketing, management, start-up) and educational courses and seminars for creative entrepreneurs
	School of Music Management http://www.light-music.ru/service_teaching.html	Since 2010	Organization of seminars and master classes in music management. Annual programmes "Management of the artist" and "Event management"
11	Nërd|Camp http://nerdcamp.info/#key-dates	Since 2011	Co-learning, co-working and co-resting events for IT and related sectors
12	Center of New Technology in the Arts "Art-parkING" http://artparking.org/ru/en/	Since 2012	Educational course "Management in the sphere of culture and art"; The course "Fundraising, legal and economic models" focuses on the development of three strategic components in the field of cultural management, as well as the formation of projects making skills.
13	GameChangers http://gamechangers.ru	Since 2012	Two-year program for ad-hoc education in IT industry, marketing and management fields;
14	Co-working event space CHANGELAB* //changelab.me	Since 2014	Co-working, event-spaces, educational center, social projects support center
15	Freedom Store http://freedomstore.ru	Since 2014	Co-working, start-up business consulting, clothes-making work-shop, art gallery

As a comment to the information from the table we should say that the interest to educational programs in CCI have appeared more than 10 years ago. Several ambitious programs on art and event management were launched since 1999 by NGOs with the support of state and international partners. That programs were available mostly for the professionals in creative fields and aimed in providing them with new skills and information on management tools, creating new relationships among the participants. The new wave of entrepreneurial initiatives in CCI and the emergence of educational projects has started after 2009 year in the post-crisis period. According to monitoring of business activity that was a period with increasing number of early-stage entrepreneurs seeking to occupy market niches for new customers, and creative industries seemed very attractive for new business projects. Thus the educational programs have become more diverse and included different areas of CCI: fashion, design, crafts and arts, food services, IT and media production. The main purpose of these programs was the knowledge and experience sharing among creative communities.

3. Findings from the Expert Survey

The main research hypotheses are formulated as follows:
H1. The main educational courses and services in the creative fields allow individuals to obtain the skills necessary to work on creative project; to a lesser extent, they are focused on team building, communication and leadership.

H2. The individual approach to education as well as interactive ways of training (coaching and workshops) are of great importance and demand for creative entrepreneurs. Advanced courses with a strategic view of the development and networking of creative enterprises are lacking in the educational market.

Speaking of the programs' audience experts say that it consists in about equal proportions of *"those who are just curious about what is the entrepreneurship; who have an idea to start a business and those, who are seriously working on his or her business project"* (from the interview with the director of School of Music Management). Per our interview with the head of the "Benua House" educational centre, the audience of the programme *"consists of all kinds of people, who are mostly interested in the programmes (and there is a procedure for the preliminary selection of applications). They are mostly young—some of them are already working in various organisations related to the topic of the course or wish to start their own business and get some fresh ideas"*. She also notes that *one of the latest trends that we have observed is the formation of more 'advanced' groups of students who are interested in specific knowledge, as they already work in the creative business."* Moreover, communication with experts confirmed the absence of required courses and programmes for creative entrepreneurship at universities. *"Generally, our students are college and university graduates … those who graduated from college and realised that they did not know how to start their project and have no idea about how the tools and algorithms of business work*", says the co-founder of the Art-parkING educational centre.

A content analysis of the educational courses reveals the most popular topics:
- Project management staging (from an idea to a business plan)
- Marketing (particularly social media marketing)
- Legislation (the registration of an enterprise, the type of organisation)

Student surveys on such programmes gave us the opportunity to identify that knowledge about the legislative basis of doing business as well as the promotion of creative projects is of great demand for those pursuing start-ups. "*Our objective was to provide knowledge and some experience to students of how to start your own business or to cooperate with an existing company. We demonstrate the different types of documents required to highlight the clear difference between non-profit and commercial organisations, as well as how individuals can cooperate on single projects*", as stated by the director of the Art-parkING centre.

In regard to special and advanced courses on creative entrepreneurship, of note is the programme called the School for Creative Entrepreneurs (Moscow), which is a partner of the international project Creative Business Hub. "*During the courses at school, attendees study in detail the issues related to the choice of legal form and type of organisation for creative businesses and the protection of intellectual property rights and copyright registration procedures of their own affairs, and partner and work with donors and sponsors.*" At the same time, "*the main problem for aspiring entrepreneurs who have an idea is the question of "where to start" and how to generate money from your idea. This is due to various practical issues, such as financial accounts, the registration of a legal entity, the search for sources of funding, the rules of communication with sponsors and donors, attracting the first audience, etc. The question of the concept and the presence of unique ideas is also important, of course.*"

Among the special courses and lectures that were mentioned in interviews as the most popular were "How to Start a Restaurant Business", "Event Management", and "IT Technologies in Cultural Management and Promotion". Still, there is a lack of attention to topics such as leadership, copyright, self-branding, strategic management, and networking. Moreover, we have discovered that third spaces and educational centres have no

distance learning programmes or any MOOCs[5] and lack coaching programmes. Cooperation with universities on distance learning development as well as research in the creative industries seems like a good opportunity for collaboration between higher education institutions and third spaces.

Full-time education formats are valuable for attendees, as they give a practical opportunity to obtain the necessary competencies so that one can gain experience in team work. Lecturer "charisma" was also mentioned as an important factor in face-to-face methods of learning during the interviews with the students. Generally, all pf the programmes we observed for our research are unique and allow budding entrepreneurs to obtain the necessary competence to start a business. Moreover, these skills and knowledge are not based on theory alone but mostly on practical cases and close communication with experts.

"*The course was very helpful, we were given many interesting and useful tips on what is important, advice, and cases studies of owners of restaurants! I am happy to go to all of the classes; I have become acquainted with the speakers. Additionally, thanks to this course, I've gained useful contacts, which will help me to develop my own business in the future. A year after attending the course, we opened our first restaurant using the information obtained during the course*", as stated by a graduate of the course "How to Open Your Bar or Restaurant" in December 2012.

Our finding correspond with the results of other research that confirm a contact with the network needed to start a new business as one of the most important role of educational programs, as well as access to networks and support in finding other entrepreneurially-minded students (See for example, Shirokova *et al*. 2014).

An analysis of the learning formats during the educational courses shows that the majority of organisations practice project-oriented methods of learning (case studies and personal student projects) with expertise from the lecturers and practitioners. The following statement is from an interview with the director of the Benua House: "*Our speakers are practitioners in the key areas of our courses. The main learning of the audience occurred via lectures, workshops, the discussion of specific cases and the analysis of the projects and ideas of the participants. As the final task of such a course, students present their project, discuss the methods of its implementation and receive comments from the experts. Students, of course, can get personal advice from the experts and lecturers at any time."*

We would like to note that in creative industries, much of a business could be realised off-line, without the registration of the enterprise or high budgets. This is true in the areas of design and crafts, performing arts, cultural or creative events, and so on. The number of people selling products and services through social networks and online stores is growing each year. As a stimulus for conducting official regular business, we could emphasise the desire to protect the owner's copyright of the products, and the desire to increase output or to attract additional funding.

In general, educational programmes for creative entrepreneurs include teaching methods broader than those of in-class learning, and include the possibility of full-time and distance learning; for example, the following aspects may be included in the educational programmes:

- e-libraries of educational projects in the field of creative industries (publications and webinars);
- e-learning courses on entrepreneurship for creative projects; (https://www.canvas.net/courses/thinking-outside-the-box-creative-entrepreneurship)
- co-working spaces and networking activities (art and business incubators; labs and research centres at universities; camping and summer schools).

All these offerings are closely connected to the increasing role of DIY projects and 'open universities' and the development of virtual learning platforms, which dissolve boundaries and create alternative spaces for cultural and business knowledge provision outside of the classroom.

[5] Massive open online courses

The role of coaching and networking activities as well as distance learning should increase in creative industries. *"In-class training and lectures are not effective methods for management courses anymore, as the trainer should work with the entire group of students. They don't provide an opportunity for the analysis of each particular case or the discussion of the major mistakes",* says a business trainer from JCI and PROtraining. According to experts, the format of coaching is becoming more popular both abroad and in Russia, and some educational organisations have only introduced this format in programmes for creative entrepreneurs.

A literature review and expert surveys allows us to conclude that leadership is one of the main factors in the success of creative projects. However, leadership is still lacking in educational programmes and consulting.

Expert surveys revealed another important point: as a rule, existing courses are aimed at the transfer of knowledge and personal experiences from lecturer to student. The organisations we observed are not engaged in compiling teaching materials, and there is no clear understanding of how to teach entrepreneurship and management in the field of creative projects. Even representatives of the oldest and most professional (in terms of educational staff) organisation, NGO "Interstudio", note the following: *" We had the workshops and innovative learning know-how during the course, but we were not less interested in methodological aspects. We have prepared some materials on methodological frameworks for the students, and we have distributed them to students for free as we gathered material we recorded. For example, the book by F.Colbert, "Art Marketing", has been translated".*

Conclusions

Educational support is essential for sustainable development of creative economy. The main components of such support are designed to bear out the awareness, motivation and business ideas providing creative atmosphere for future entrepreneurs. Some elements of such support could be found in creative spaces conducting educational and consulting programs. The main outputs for attendees is not only knowledge, but the networking and community relations. Third spaces and NGOs have a great role in experience and knowledge sharing among creative community, but the future development of the industry seems to be more successful in cooperation with the universities and e-learning platforms. That cooperation suggests the methodological support of courses, as the ways of teaching and learning of creative entrepreneurship are only tested now.

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EXPORT AND GDP GROWTH IN LITHUANIA: SHORT-RUN OR MIDDLE-RUN CAUSALITY?

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Abstract. The research paper discusses the relationship between international trade, especially export, and the economic growth, presented by GDP, in Lithuania over the period of 2000-2015 years. The analysis is started by the historical review of possible types of relationships between exports and economic growth. Furthermore, the paper presents four theoretical propositions as export-led growth (1), growth-driven export (2), a feedback relationship (3) and simple contemporaneous relationship (4). This study examines the importance of the export-led growth hypothesis for Lithuania. The testing is based on Granger causality in the export–GDP system. The export-led growth hypothesis is found in Lithuania only in the short-run. The recommendations for future investigations are developed at the end of research paper's parts.

Keywords: Granger causality, exogeneity, Lithuanian export, economic growth

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1. Introduction

The relationship between export (as main indicator of *international trade*) and GDP (as main indicator of *economic growth*) has long been a main subject of the scientific interest in the literature of economic development and economic growth.

Since the early 1960s policy makers and scholars have shown a great interest in the possible relationship between exports and economic growth. The motivation is clear. Should a country promote exports to speed up economic growth or should it primarily focus on economic growth, which in turn will generate exports? There are basically four theoretical propositions (Konya 2004):

1) According to the so called *export-led growth hypothesis*, export activity leads to the economic growth. The trade theory provides several plausible explanations in favor of this idea. Beside others, the positive impact of an outward oriented trade policy on technological change, labour productivity, capital efficiency and, eventually, on production can be mentioned.

2) The second proposition is *the growth-driven export hypothesis*, which postulates a reverse relationship. It is based on the idea that economic growth induces trade flows. It can also create comparative advantages in certain areas leading to specialisation and facilitating exports.

These two approaches certainly do not exclude each other.

3) Therefore, the third notion is *a feedback relationship* between export and economic growth.
4) Finally, there is also potential for *a simple contemporaneous relationship* between these two variables.

There is a significant strand of Lithuanian scientific literature devoted to discussion on the importance of the export-led growth for small open economy countries, whose economic activities are mostly export-oriented, like in Lithuania or the other Baltic States (Travkina, Tvaronavičienė 2010, 2011, 2015; Lankauskienė, Tvaronavičienė 2014; Dudzevičiūtė *et.al.* 2014; Rutkauskas *et.al.* 2014; Vosylius *et.al.* 2013; Bruneckienė, Paltanavičienė 2012; Meilienė, Snieška 2010; Rojaka 2008; Ginevičius *et.al.* 2005; Vilpišauskas 2004; Rudzkis, Kvedaras 2003).

In the article it is assumed that export is a short-run and a middle-run source of the Lithuanian economic growth; therefore, the exports-led growth hypothesis was re-examined and re-confirmed in the case of Lithuania during the period from 2000Q1 to 2007Q4 and from 2009Q1 to 2015Q1. The article is organized as follows: firstly, the mentioned relationship should be described using information from peer-reviewed scientific sources. Secondly, the author presents the methodology and econometrical testing results. Finally, the main finding of the part should be summarized.

2. The Analysis of the Relationship between Export and GDP

The genesis of competitiveness, presented by the author in 2010 (Travkina, Tvaronavičienė 2010), argues that even without reference to a particular type of relationship between export and GDP, the international trade development positively influences economic growth, because it will increase capacity utilization, allow a country to take advantage of scale economies, promote technical change, and increase the resource allocation efficiency, and overall productivity as well. However, there are more theoretical insights tested by various models. The models mostly used in previous studies derive from neo-classical economic theory or from modern theories based on classical principles (Krugman 1994; Bouoiyour 2003; Travkina, Tvaronavičienė 2010; Bruneckienė, Paltanavičienė 2012; Meilienė, Snieška 2010).

Recent studies indicate that the relationship between trade and economic growth depends on the level of development (1) and economic structure (2) and is subject to an interactive process of economic development and structural change (Sun, Parikh 2001; Travkina, Tvaronavičienė 2011, 2015). However, the most recent and comprehensive survey of this literature is done by Giles and Williams (2000) who review more than one hundred and fifty applied papers on export-growth, published between 1963 and 1999. These papers fall into three groups:

a) The first group of studies is based on cross-country rank correlation coefficients;
b) the second one applies the cross-sectional regression analysis, and
c) the third group uses time series techniques on a country-by-country basis.

Two thirds of the papers belong to the third group, and more than seventy of these are based on the concept of the Granger causality and on various tests of it. Applications of causality tests and cointegration techniques in examining the relationship between international trade and economic growth have become popular since the beginning of the 1985 (Jung, Marshall 1985), especially, there has been considerable interest in testing export-led growth (ELG) using the notion of Granger causality.

Rather scarce studies exist on Lithuania, in which these techniques are applied (Rudzkis, Kvedaras 2003). In the case of Lithuania, Rudzkis and Kvedaras (2003) find evidence for export causing growth both in the long run, and in the short run. In addition, prior studies have ignored dynamic analysis, such as impulse responses, and have had gaps in their econometric procedure of applying the VAR model.

3. The Methodology of the Testing

Intuitive ideas can be investigated through vector autoregression models incorporating the notion of Granger or regressive causality.

This study is the subject to contribution to the scientific literature:

a) it provides the econometric application in the proven way, to avoid misspecification and to minimize the testing bias. It includes and estimates the causal relationship by applying the three-variable VAR model based on the three time series (GDP, import, export);
b) it complements the literature on relationships between trade liberalization, economic growth and empirical evidence about the source of economic development in the case of Lithuania.

In this part the author tests the short-term and middle-term relationships between GDP, export and import for Lithuania from 2000Q1 until 2007Q4 and from 2009Q1 until 2015Q1, using a three-variable vector autoregressive (VAR) model.

The author applies econometric procedures, including the following steps:

1) Test unit root of time series;
2) Construct the three-variable VAR model;
3) VAR diagnostics;
4) Granger causality test;
5) Impulse response function.

"Eviews" program was selected as the instrument of statistical and econometric analysis as well as for testing.

1) Test unit root of time series.

The author implements the unit root test of the three time series: GDP, export and import by using the Augmented Dickey-Fuller (ADF) test (Enders 2009). If those studied series are stationary in first difference (I(1)), they will be used to construct a three-variable VAR. If some of the series, or all three, have a higher order than I(1), I will transfer them into the other forms such as logarithms, share of GDP or form of difference, and then retest the unit root. This step will cease when the transformed series are non-stationary with an order of one.

2) Construction of three-variable VAR model

VAR is the extension of the autoregressive (AR) model to the case in which there is more than one variable under study. The term „VAR" becomes more transparent if we use matrix notation. A first order VAR in two variables would be given by (Lapinskas, 2012):

$$Y_t = \alpha_1 + \delta_1 t + \varphi_{11} Y_{t-1} + \cdots + \varphi_{1p} Y_{t-p} + \beta_{11} X_{t-1} + \cdots + \beta_{1q} X_{t-q} + \varepsilon_{1t}$$

and (1)

$$X_t = \alpha_2 + \delta_2 t + \varphi_{21} Y_{t-1} + \cdots + \varphi_{2p} Y_{t-p} + \beta_{21} X_{t-1} + \cdots + \beta_{2q} X_{t-q} + \varepsilon_{2t}$$

The term „VAR" becomes more transparent if we use matrix notation. A first order VAR in two variables would be given by

$$Y_t = \alpha_1 + \varphi_{11} Y_{t-1} + \varphi_{12} X_{t-1} + \varepsilon_{1t} \qquad (2)$$
$$X_t = \alpha_2 + \varphi_{21} Y_{t-1} + \varphi_{22} X_{t-1} + \varepsilon_{2t}$$

Where ε_{1t} and ε_{2t} are two white noise processes (independent of the history of Y and X) that may be correlated (Lapinskas, 2012).

3) VAR diagnostics

To check the VAR model, the following tests should be implemented:

a) Lag order selection;
b) R-squared, adjusted R-squared, Akaike info criterion, Durbin-Watson stat.
c) VAR residual serial correlation LM test;
d) VAR residual normality test;
e) VAR residual heteroscedasticity test.

a) Lag order selection

According to Enders (2009), the model will be misspecified, when the lag length is too small. The more lags there are, the more parameters we need to estimate and the less bias in our results occur. The model will be over parameterized if the number of lags is too large. There are two approaches: lag order selection based on the LR test; and lag order selection based on Information criteria such as AIC (Akaike's Information Criterion), FPE (final prediction error), SC (Schwarz criterion), HQ (the Hannan & Quinn (1979) criterion) (Lutkepohl 2005).

b) R-squared, adjusted R-squared, Akaike info criterion, Durbin-Watson stat.

The popular characteristic of the model quality is the coefficient of determination R-squared. For example, R^2=0.65, we say that the right-hand variables explain 65 per cent of Y's variability. The problem with R^2 is that this ratio can not fall when more explanatory variables are added to a model. There are many possibilities to penalize for extra explanatory variables, for example, calculation of adjusted R-squared, Akaike info criterion (AIC), Durbin-Watson stat, Schwarz information criterion (SIC). Noticeably, that sometimes these criteria (most popular among them are AIC and/or SIC) give conflicting answers: if a few models have the same left-hand variable, the best is with the smallest AIC and/or SIC.

c) VAR residual serial correlation LM, normality and heteroscedasticity tests

However, it is usual that different criteria give a different number of maximum lag lengths. The problem is which criteria we should choose. To overcome this problem, the author should run VAR with different lag orders, chosen by different criteria and the LR test, and then implement the VAR residual serial correlation LM test, residual normality and heteroscedasticity tests. An appropriate lag order needs to satisfy those tests (Nguyen 2011).

4) Granger causality test

In order to know the causality between those four time series, the author applies the Granger causality test (Enders 2009). This test detects, whether the lags of one variable can Granger-cause any other variables in the VAR system. The null hypothesis is that all lags of one variable can be excluded from each equation in the VAR system.

The basic idea of the Granger or regressive causality is that a variable X Granger causes Y, if past values of X can help explaining Y. Of course, if the Granger causality holds, this does not guarantee that X causes Y. This is why academicians say "Granger causality" rather than just "causality". Nevertheless, if the past values of X have explanatory power for the current values of Y, it at least suggests that X might be causing Y. Granger causality is the only relevant with time series variables (Lapinskas 2012).

5) Impulse response function

Based on the Granger causality test, we do not know whether or not the exports and imports have a positive effect on GDP. It is also unclear, whether or not the impact of exports on GDP is stronger than that of imports on GDP. To answer these questions, the author analyzes the impulse-response function. Shin and Pesaran defined the impulse response function as follows: "An impulse response function measures the time profile of the effect of shocks at a given point in time on the (expected) future values of variables in a dynamic system" (Shin, Pesaran 1998).

4. Empirical Analysis and Findings

Data set of real variables (GDP, export and import) was constructed and consisted in 41 observations through two periods: 2000Q1-2007Q4 and 2009Q1-2015Q1. The aim of this Section is to test the short-run and middle-run causality in the Granger sense. For this reason, the author uses the quarterly instead of the annual *seasonally adjusted and adjusted data by working days* data:

a) *Gross domestic product* (GDP) is GDP at prices of the current reporting period or GDP at current prices (B1GM in Eurostat database), presented in million euro;
b) *Exports of goods and services* (export or total export) represent the value of all goods and other market services provided to the rest of the world (P6 n Eurostat database), presented in million euro;
c) *Imports of goods and services* (import or total import) represent the value of all goods and other market services received from the rest of the world (P7 n Eurostat database), presented in million euro.

Unit Root Test

Table 1 reports the empirical founding of the unit root tests. In this Section, the author uses the Augmented Dickey - Fuller (ADF) technique (Enders 2009). Table 1 provides the evidence that the three time series (GDP,

export, and import) became stationary after the first difference, excluding the GDP for the period of 2000-2007 that became stationary after the second difference.

Table 1. The empirical founding of the unit root tests

Series	t-Stat	Prob.	Obs	Unit root in
EX_2000Q1_2007Q4	-6,1066	0,0000	30	1st difference
GDP_2000Q1_2007Q4	-16,3034	0,0000	29	2nd difference
IM_2000Q1_2007Q4	-4,8705	0,0005	30	1st difference
EX_2009Q1_2015Q1	-3,4076	0,0213	23	1st difference
GDP_2009Q1_2015Q1	-3,7241	0,0107	23	1st difference
IM_2009Q1_2015Q1	-3,3319	0,0251	23	1st difference

VAR diagnostics

The result from the test for the lag length criteria based on the three-variable VAR systems with the maximum lag number of 3 for the period of 2000Q1-2007Q4 quarters and of 5 lags for the period of 2009Q1-2015Q1 quarters is reported in the Appendix 1.
The results from the VAR residual serial correlation LM test, VAR residual normality test and the VAR residual heteroscedasticity test are reported in Appendixes 2-4. These three tests give support to the assumptions of our models about residuals and correct the lag order from 5 for the period of 2009Q1-2015Q1 quarters into 3 lags.

Construction of three-variable VAR model

The author constructs two VAR systems with the three endogenous variables (GDP, export, and import) for the two different periods: for the period of 2000Q1-2007Q4 quarters and for the period of 2009Q1-2015Q1 quarters. The author runs two VAR's with the lag order of 3.
VAR models are used to develop regression equations for two periods: 2000Q1-2007Q4 and 2009Q1-2015Q1:

$$\Delta GDP = c1\Delta GDP(1) + c5\Delta Export(2) + c6\Delta Export(3) + C10$$
(Prob.value) (0.0000) (0.0275) (0.0618) (0.5935)

R-squared	0.7809	Akaike info criterion	11.8503
Adjusted R-squared	0.7535	Durbin-Watson stat	1.8323

The best regression equation that is on the right side includes gross domestic product for the period of 2000Q1-2007Q4 quarters as endogenous variable, describes exogenous variables with determination coefficient R^2 equal to 0.7809.

$$\Delta GDP = c2\Delta GDP(2) + c4\Delta Export(1) + c6\Delta Export(3) + C10$$
(Prob.value) (0.0360) (0.0751) (0.2085) (0.0071)

R-squared	0.3084	Akaike info criterion	12.5651
Adjusted R-squared	0.1864	Durbin-Watson stat	2.0044

The best regression equation that is on the right side includes gross domestic product for the period of 2009Q1-2015Q1 quarters as endogenous variable, describes exogenous variables with determination coefficient R^2 equal to 0.3084.

The Granger causality test

The Granger causality test (Pairwise Granger Causality Tests, Table 2) suggests that:

a) Data set of three real variables (GDP 2000Q1-2007Q4, Export 2000Q1-2007Q4 and Import 2000Q1-2007Q4) was constructed and consisted in 27 observations through the period of 2000Q1-2007Q4 quarters.

The author fails to reject the null hypothesis of excluding GDP 2000Q1-2007Q4 from Export 2000Q1-2007Q4 equation at a 0.0500 significance level, due to the fact that the P-value = 0.0399 (as of excluding Import 2000Q1-2007Q4 from Export 2000Q1-2007Q4 equation at a 0.0500 significance level, due to the fact that the P-value = 0.0058). It suggests that *GDP 2000Q1-2007Q4 does not cause Export 2000Q1-2007Q4, and/or Export 2000Q1-2007Q4 causes GDP 2000Q1-2007Q4.*

b) Data set of three real variables (GDP 2009Q1-2015Q1, Export 2009Q1-2015Q1 and Import 2009Q1-2015Q1) was constructed and consisted in 21 observations through the period of 2009Q1-2015Q1 quarters. The author fails to reject the null hypothesis of excluding GDP 2009Q1-2015Q1 from Export 2009Q1-2015Q1 equation at a 0.1000 significance level, due to the fact that the P-value = 0.0886 (as of excluding Import 2009Q1-2015Q1 from Export 2009Q1-2015Q1 equation at a 0.0500 significance level, due to the fact that the P-value = 0.0041). It suggests that *GDP 2009Q1-2015Q1 does not cause Export 2009Q1-2015Q1, and/or Export 2009Q1-2015Q1 causes GDP 2009Q1-2015Q1.*

Table 2. The empirical founding of Pairwise Granger Causality Tests

(Lags: 3)

Null Hypothesis:	**F-Statistic**	**Prob.**
Export (2000-2007) does not Granger Cause GDP (2000Q1-2007Q4)	3.28261	0.0399
Export (2000-2007) does not Granger Cause Import (2000Q1-2007Q4)	5.46440	0.0058
Export (2009-2015) does not Granger Cause GDP (2009Q1-2015Q1)	2.62492	0.0886
Export (2009-2015) does not Granger Cause Import (2009Q1-2015Q1)	6.78950	0.0041
GDP (2009-2015) does not Granger Cause Import (2009Q1-2015Q1)	8.17483	0.0018

This conclusion needs to be compared with those from the impulse response function. However, this test does not provide information about the direction of the impact nor the relative importance between variables that simultaneously influence each other. For example, this test shows the causality of exports on GDP and also of GDP on import, and export on import.

Based on this test, the author doubts whether or not the export has a positive effect on GDP. It is also unclear, whether or not the impact of exports on import is stronger than GDP on import. To answer these questions, the author analyzes the impulse-response function.

The Impulse response function

Figures 1-4 exhibit the generalized asymptotic impulse response function. It includes 4 small figures. Each small figure illustrates the dynamic response of each target variable (GDP, export, and import) to a one-standard-deviation shock on itself and other variables. In each small figure, the horizontal axis presents the five years (or 20 quarters) following the shock. The vertical axis measures the quarterly impact of the shock on each endogenous variable.

The Granger causality test shows that export affects GDP during two periods. Figure 3.1 presents *the not significant positive effect* on GDP of a shock to export for the period of 2000Q1-2007Q4 quarters. Figure 3.3 presents *the short-run positive effect* on GDP of a shock to export for the period of 2009Q1-2015Q1 quarters. From *the middle-run perspective* the impact is not significant.

Impulse response function: accumulated response of ΔExport and ΔImport ***to*** *Δ**GDP***

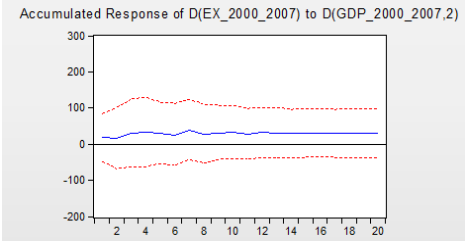

Fig. 3.1

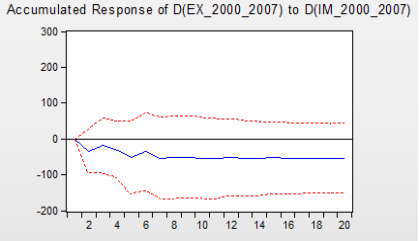

Fig. 3.2

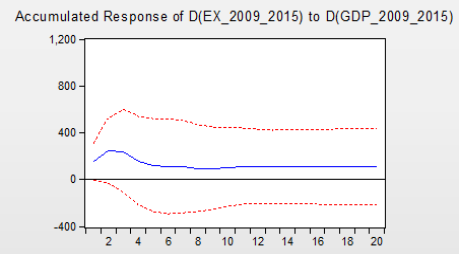

Fig. 3.3

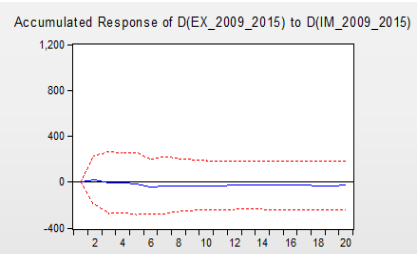

Fig. 3.4

Figure 2 presents *the middle-run negative effect* on total import of a shock to export for the period of 2000Q1-2007Q4 quarters. Export does not return to its pre-shock level after the chosen period. Figure 3 suggest that export shocks have neutral *impact* on change of total import for the period of 2009Q1-2015Q1 quarters.
In summary impulse response is mostly consistent with Granger causality tests, except for the impact of shock to export on GDP for the period of 2000Q1-2007Q4 quarters and to export on import for the period of 2009Q1-2015Q1 quarters, which is more neutral.

Conclusions

This research applies two three-variable VAR models, which are constructed from the three endogenous variables of GDP, of total export and of total import in order to observe the integrated relationship between the international trade and economic growth of Lithuania during the period from 2000Q1 to 2007Q4 and from 2009Q1 to 2015Q1.
The results indicate the following aspects:

1) Export is a short-run source of the Lithuanian economic growth. The exports-led growth hypothesis was re-examined and re-confirmed in the case of Lithuania. Trade liberalization has a positive effect on the Lithuanian economic growth. The causality from trade liberalization on economic growth can be seen through export and re-export channel.
2) Export is not affected by the two other variables as GDP and import.

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Appendix 1. Test for Lag Length Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
For the period of 2000Q1-2007Q4 quarters						
0	-512,5502	NA	7.72e+12	38,1889	38,3329	38,2317
1	-491,7209	35,4870*	3.24e+12	37,3127	37,88859*	37,4839
2	-481,8250	14,6606	3.12e+12	37,2463	38,2542	37,5460
3	-470,2008	14,6379	**2.77e+12***	**37,0519***	38,4917	**37,4800***
For the period of 2009Q1-2015Q1 quarters						
0	-386,7498	NA	1.32e+14	41,0263	41,1754	41,0515
1	-382,5292	6,6641	2.22e+14	41,5294	42,1259	41,6303
2	-378,3381	5,2941	4.03e+14	42,0356	43,0794	42,2123
3	-367,0630	10,6817	4.05e+14	41,7961	43,2873	42,0485
4	-339,0239	17,70892*	9.60e+13	39,7920	41,7306	40,1201
5	-305,7723	10,5005	**3.03e+13***	**37,23919***	**39,62514***	**37,64299***

Appendix 2. VAR Residual Serial Correlation LM Tests

VAR Residual Serial Correlation LM Tests
Null Hypothesis: no serial correlation at lag order h
Sample: **2000Q1 2007Q4**
Included observations: 27

Lags	LM-Stat	Prob
1	9.029744	**0.4345**
2	15.78249	**0.0716**
3	14.65107	**0.1010**

Sample: **2009Q1 2015Q1**
Included observations: 21

Lags	LM-Stat	Prob
1	15.66124	**0.0743**
2	14.22157	**0.1147**
3	7.045319	**0.6324**

Probs from chi-square with 9 df.

Appendix 3. VAR Residual Normality Test

VAR Residual Normality Tests
Orthogonalization: Cholesky (Lutkepohl)
Null Hypothesis: residuals are multivariate normal
Sample: 2000Q1 2007Q4
Included observations: 27

Component	Skewness	Chi-sq	df	Prob.
1	0.399716	0.718978	1	0.3965
2	0.128589	0.074408	1	0.7850
3	-0.202511	0.184549	1	0.6675
Joint		0.977936	3	0.8066

Component	Kurtosis	Chi-sq	df	Prob.
1	3.612689	0.422312	1	0.5158

2	2.382977	0.428307	1	0.5128
3	2.813052	0.039318	1	0.8428
Joint		0.889937	3	0.8279

Component	Jarque-Bera	df	Prob.
1	1.141290	2	0.5652
2	0.502716	2	0.7777
3	0.223867	2	0.8941
Joint	1.867873	6	0.9314

VAR Residual Normality Tests
Orthogonalization: Cholesky (Lutkepohl)
Null Hypothesis: residuals are multivariate normal
Sample: 2009Q1 2015Q1
Included observations: 21

Component	Skewness	Chi-sq	df	Prob.
1	-0.307635	0.331237	1	0.5649
2	0.009771	0.000334	1	0.9854
3	0.907170	2.880353	1	0.0897
Joint		3.211924	3	0.3601

Component	Kurtosis	Chi-sq	df	Prob.
1	2.218174	0.534845	1	0.4646
2	2.889712	0.010643	1	0.9178
3	4.588915	2.209069	1	0.1372
Joint		2.754557	3	0.4310

Component	Jarque-Bera	df	Prob.
1	0.866082	2	0.6485
2	0.010977	2	0.9945
3	5.089422	2	0.0785
Joint	5.966481	6	0.4270

Appendix 4. VAR Residual Normality Heteroskedasticity Tests

VAR Residual Heteroskedasticity Tests: No Cross Terms (only levels and squares)
Sample: 2000Q1 2007Q4
Included observations: 27

Joint test:

Chi-sq	df	Prob.
90.38522	108	0.8896

Individual components:

Dependent	R-squared	F(18,9)	Prob.	Chi-sq(18)	Prob.
res1*res1	0.440506	0.349925	0.9694	11.89367	0.8527
res2*res2	0.571213	0.592071	0.8308	15.42275	0.6328
res3*res3	0.651409	0.830529	0.6495	17.58804	0.4831
res2*res1	0.469880	0.393940	0.9520	12.68676	0.8098
res3*res1	0.647517	0.816453	0.6600	17.48297	0.4902
res3*res2	0.491346	0.429321	0.9350	13.26634	0.7755

Sample: 2009Q1 2015Q1
Included observations: 21

Joint test:

Chi-sq	df	Prob.
111.8809	108	0.3797

Individual components:

Dependent	R-squared	F(18,9)	Prob.	Chi-sq(18)	Prob.
res1*res1	0.902680	1.030597	0.6021	18.95628	0.3945
res2*res2	0.873025	0.763952	0.7054	18.33353	0.4339
res3*res3	0.982369	6.191006	0.1479	20.62975	0.2985
res2*res1	0.938168	1.685864	0.4370	19.70152	0.3499
res3*res1	0.736624	0.310761	0.9361	15.46910	0.6295
res3*res2	0.741592	0.318872	0.9322	15.57343	0.6223

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EFFECTS OF CONSUMER BEHAVIOUR ON INNOVATIONS IN FAST FOOD INDUSTRY

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Abstract. The purpose of this study is to examine effects of consumer behaviour on innovation commercialization among fast food restaurants via the analysis of restaurant selection criteria in the Lithuanian fast food market. In today's global economic competitive environment where innovation is becoming more important, companies need to successfully manage innovations in order to ensure their competitive advantage, exploit new markets and attract customers. There is extensive research in the area of innovation (for instance, Schumpeter, 1934; Drucker, 2002; Lundvall, 2004; Freeman, 1982; Alam and Perry, 2002; Berghman, 2008; Ottenbacher, 2007, 2008 and etc.); however, the literature on the impact of consumer behaviour on commercialization of innovation is not well-established. The paper is innovative and relevant due to the selected fast food industry for analysis. It addresses the question: how does consumer behaviour contribute to innovation processes in the fast food industry and what are the ways to optimize the innovation performance, based on consumer needs? Fast food could be considered as an innovation itself. Nowadays it is not enough to just provide a fast food. Companies need to innovate in order to attract new customers – there is a new trend of healthy fast food, where requirements for fast food companies are very high. The present paper overviews and compares the academic literature on innovation, various classifications of innovation types and innovation process. It also presents the specific trends and issues of the EU system of innovation, choosing the Lithuanian case due to its sensitivity to transformation and rapid improvements, and only then it evolves into a quantitative survey-based study on fast food; restaurant selection criteria.

Keywords: innovation, commercialization, fast food industry, consumer behavior, restaurant selection criteria.

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JEL classification: M130 New Firms; Startups

Introduction

The academic literature outlines many definitions of innovation, but in general innovation is an unavoidable process of applying new products, ideas or business processes to companies' activities in order to create greater value in a final offering and gain competitive advantage (Stock et al., 2002). To analyse innovation in-depth it is necessary to overview studies of different well-known scholars, although there is no universally shared conceptualization of innovation (Amara and Landry, 2005).

According to Staškevičius (2004), the meaning of word 'innovation' is related to the 15th century French word *inovacyion*, which means an item update or giving a new shape to an object. Thus, the most of the time it is

associated with words ‘new’ or ‘change’. Schumpeter (1934), the first scholar who defined innovation, states that innovation is the creation of new combinations. Schumpeter relates definition of innovation to an introduction of a new or new-quality good (yet unfamiliar for customers); a new production method related with scientific discoveries; the opening of a new market, which has not been entered by a particular branch of manufacturing; the introduction of new supplies and raw materials and finally – new creation of organizational structure, for example, creation or braking up of a monopoly position (Schumpeter, 1934). This well-known theoretician also argued that everybody who expected to gain a competitive advantage and made a profit faced innovation. In his book ‘Capitalism, Socialism and Democracy’ (1942) Schumpeter created a term ‘creative destruction’, which is a ‘process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. It is a center of economic change, driven by innovation and the essence of capitalism’.

Another important Schumpeter’s discovery is the dividing of the innovation process into four dimensions: invention, innovation, diffusion and imitation. Here, he states that only the invention or discovery itself do not have a great impact on economy, so diffusion and imitation stages are more important, because here imitators realize the potential of innovation and start investing money – innovation is applied beyond its origin. Schumpeter established that innovation did not require any special or new knowledge; instead he noted that innovation would appear when existing knowledge had not been utilized in a specific industry. According to him – innovation is the act of will, leadership and risk taking activities rather than a result of human intelligence – ‘The pure new idea is not adequate by itself to lead to implementation. It must be taken up by a strong character (entrepreneur) and implemented through his influence’ (Schumpeter, 1912, p.543).

Another author B. Ludvall expanded this theory and stated that innovation had direct and indirect costs. Direct costs include development, implementation and use of something new directly involved in the innovation process, and indirect costs involve people and organizations that have little influence on the innovation process (employees loosing value of their qualification, durable goods loose value when new ones come to the market etc.). In his book ‘Innovation, Growth and Social Cohesion: The Danish model’ (B. Lundvall, 2004), he further analyzed the knowledge-based economy and explained that sectors which use knowledge the most – for example R&D or skilled labor – are the ones who grow most rapidly and therefore, innovate the most. He adds that innovation takes place when a firm develops a new production process, a new product or a new service and introduces it in the market. Again, both Schumpeter and Lundvall state that innovation stage is not the most important one, because all innovations require adaptation in the market until it becomes fit in the context. Dissemination stage is where the innovation is improved, made cheaper and more usable; this is why it is so important (Lundvall, 2004).

Lundvall also emphasizes the importance of scientific research, which he links with knowledge-universities that are crucial for technical progress to be achieved. The combination of theoretical and practical knowledge is necessary. He also defined the innovation system, which is a result of a social process involving interplay between many individuals and organizations over a longer period of time in which cumulative learning processes take place. It can be either between basic research, applied research, universities or industry knowledge production, which explains that innovation system can take place in all sectors of a private economy, between private firms, in knowledge institutions and organizations. Firms, in order to survive and innovate without technology and research, innovate in organizational and marketing techniques, which approve Schumpeter’s idea that innovations are essential for economic growth.

Another influential innovation and management philosopher Peter Drucker, in his book ‘Innovation and Entrepreneurship’ (1986) defined innovation as a specific instrument of entrepreneurship with the associated resources and a new capacity to create wealth. In a similar way like Lundvall the author states that innovation does not necessarily have to be technical – it is mostly related with knowledge management, which enables people, with different skills working together within an organization, to explore opportunities (Drucker, 2002). This is why innovation is an economic or social rather than a technical term. Furthermore, according to Drucker, innovation is a systematic phenomenon and consists of purposeful and organized search for changes and

opportunities, which are main sources of innovation. Being successful in innovation is being successful in monitoring seven sources of innovative opportunity:

1. The unexpected success, failure or outside event that can possibly lead to an innovative opportunity, because most companies disregard and dismiss them.
2. Incongruities or conflicts between opposing functions, requirements or values, for example an incongruity between an economic reality of an industry and the assumptions about it, or the ones in production distribution or consumer behavior.
3. Process needs, which often evolve from a specific need to achieve a result faster and more efficient.
4. Industry and market structure – Industry markets and market structure may offer opportunities for new types of services. Outsourcing of activities such as maintenance of the IT infrastructure is a good example.
5. Demographics – population, age distribution, education, occupations, geographic location etc. changes.
6. Changes in perception - changes of the meaning of facts and thoughts about them.
7. New knowledge – innovations based on scientific, technical or social knowledge are the ones, which are the most successful and most frequent ones.

In general Drucker claimed that innovations have to be simple and concentrated. They require knowledge and creativity, and, most importantly, they have an effect in economy and society – so it is market driven (Drucker, 1986). According to Drucker, innovators are people who minimize risks and systematically analyse and exploit the sources of opportunity.

Despite the change in the economic landscape, Schumpeter's, Lundvall's and Drucker's ideas remain the main starting point and the base for any other theories. Many other thinkers have tried to define the term innovation. They have all drawn a similar definition, but every one of them added their own thoughts, models and types. Different innovation definitions reveal new attributes, meanings and add new information which has not yet been discovered. Trott (2005) states that innovation is the epicenter of many companies. Going back to 1982, Christopher Freeman revealed that not to innovate was to die – this explains that people realized the importance of innovation. Table 1 represents the summary of innovation definitions that are important to outline in order to be successful in analyzing innovations.

Table 1. Definitions of innovation

Authors	Definitions of innovation
Paul Trott (2005)	Innovation = theoretical assumption + technical invention + commercial exploitation
Tidd, Bessant, Pavitt (1997).	Embodiment, combination, or synthesis of knowledge which is original, relevant, and gives added-value to a product, process or service
Crossan and Apaydin (2010)	Introduction of new products and successful commercialization of new combinations, based on the application of new materials and components, the introduction of new processes, the opening of new markets or the introduction of new organizational forms
The European Commission Green Paper (1995)	Successful production, assimilation and exploitation of novelty in the economic and social spheres
Oslo Manual, OECD (1997).	Providing new or improving existing ones products by successfully commercializing new technologies, ideas, methods
P. Kulviecas (1991).	Complex creation, development, global spread and effective usage of novelties in various areas of human activities. It is a process which includes the research, preparation, management and functionality in order to achieve a specific result
Jakubavicius, Strazdas, Gečas (2003)	Complex and dynamic phenomena which involves many stakeholders, such as institutions, businesses, suppliers, clients, consultancy agencies, economic development agencies, business associations, educational institutions, financial institutions etc., so it is crucial to see innovations as advancement process, where companies and partners interact

Source:Prepared by authors, based on Trott (2005); Crossan and Apaydin (2010); European Commision (1997); Jakūbavičius et al. (2003).

1. Classifications of innovation

Innovation literature classifies innovations according to many frameworks, developed by different researchers. Firstly, they can be classified, based on their models. There were several different models of innovation distinguished by different scholars throughout the 20th century.

Table 2. Models of innovation

Year	Model	Explanation
1950/60s	Technology push	Simple linear model, with emphasis on the R&D. Unexpected discoveries, with the help of technologies, are transformed into product ideas and pushed with marketing and sales techniques to the market. Here, market place has a reactive role.
1970s	Market pull	Simple linear model, with emphasis on marketing. Innovations arise from close interaction with customers. Consumer needs-driven industry directs R&D.
1980s	Coupling model	Model emphasizes that innovation is a result of simultaneous coupling of the knowledge within manufacturing R&D and marketing.
1980/1990s	Interactive model	It links push and pull models together and emphasizes the interaction between the marketplace, science base and organizational capabilities. Innovations can arise from various sources based on knowledge transfers, and organizations which are able to manage this process will be efficient in innovation.
2000s	Network model	The center of this model is organizational functions of R&D, engineering, manufacturing and marketing. The flow of communication between these functions is free, and linkages occur between all functions. In this way innovation can occur in any stage.

Source: Prepared by authors, based on Trott (2005)

Since the word 'innovation' can be related to different kinds of 'newness' regarding different products, production methods, technologies, markets, and organizational processes, the innovation theory developers have distinguished different types of innovation.

For the first time, different types of innovation were introduced by Schumpeter in 1942, that were called 'discontinuities'. The two types of innovation he identified were: competency-destroying and competence-enhancing discontinuities. The first one referred to a disruptive innovation that requires replacing existing technology, while a competence-enhancing innovation is developed on existing know-how. These two types presented by Schumpeter gave a strong background for further research regarding different types of innovation. Many experts now agree on existing four types: disruptive, discontinuous, radical and incremental innovations. Christensen (1997), a researcher at Harvard Business School, explained that disruptive innovation comes in a form of less functional products or services at a much lower price, targeting a significant number of customers who are satisfied with lower performance and functionality of a new technology. Gradually, a new product is being improved and finally it completely replaces the old version. Secondly, discontinuous innovations require customers to change their behavior and adapt to the new technology (Walsh and Kirchhoff, 2000). Although these two types of innovation are similar, because in both cases a new technology changes the old one, still, controversy is present. Linton and Walsh (2002) add that disruptive technologies are discontinuous, but discontinuous technologies are not necessarily disruptive. It means that discontinuous innovations become disruptive only when existing technology is not prepared for a new rival and does not have enough experience to survive (Philips and Nokes, 2003). In addition, if companies with old technology have enough skills and experience, it is more likely that they will survive (Tripsas, 1997; Rothaermel, 2002).

The other two types of innovation are incremental and radical which, according to Tushman and O'Reilly (2004), are types that companies should focus on. The first one is incremental or continuous innovation which defines small changes and adjustments to existing products, services or processes, and requires companies to focus on development and improvement of existing production line. The second type is radical or discontinuous innovation that refers to the introduction of an entirely new kind of product in the market, and requires architectural and creativity skills of an organization. For a better view, Leifer *et al.* (2000) explain that innovation, in order to be radical, has to be one or more of the following:

- an entirely new set of performance features,
- improvements in known performance features,
- improvements in known performance features of five times or greater,
- significant (30% or greater) reduction in cost.

In order to expand the perception about incremental and radical innovations, Olson *et al.* (1995) suggest four categories which define innovation more specifically. These categories are: new-to-the-world products, line extensions, me-too products and product modifications. The first category refers to products and services which are new to the market and company which develops it. Line extensions are complementary products or additional parts that are also new to the market, but not for a company. Me-too products are described as imitated products that are known to the marketplace but new to a company. The last category is product modification which defines existing products that are new neither to the market nor to a company.

Furthermore, regarding Schumpeter's theory, more recent researchers continue to develop classification of innovation and suggest another four types which are architectural innovation, market niche innovation, regular innovation and revolutionary innovation (Abernathy & Clark, 1985; Tidd, 1993). The first type is architectural innovation which is defined as a basic configuration of process that will influence further development of product or service. The second one, market niche innovation, refers to new market opportunities using existing technology. Regular innovation, the third, is a change built on the technical and production competence and applied to existing markets in order to strengthen the product position. The last type is revolutionary innovation that is referred to disruptive technologies that replaces previous versions. These categories reflect previously described ones, only with minor variations in order to specify description and improve understanding of innovation types. It is possible to compare the first three categories with Schumpeter's competence-enhancing discontinuity and the forth with competency-destroying discontinuity.

Some researchers believe that it is important to understand varying degrees of innovativeness, since different types of innovation need different conditions to be implemented successfully. Heany (1983) suggests six degrees of innovations according to four conditions he raises (see Table 3). They are style change, product-line extension, product improvement, new product, start-up business, major innovation. So according to Heany (1983), in order to match innovation with appropriate degree of innovativeness it is necessary to answer questions, such as: whether market for product is established or not, whether business already is serving the market, do customers know functions and features of a product, and what is the design effort for a product or process (Table 3).

Table 3. Degrees of Innovation

Degrees of Innovation					
Is the market for product established?	Is the business already serving the market?	Do customers know functions and features?	What is the design effort?		Then innovation is a:
			Product	Process	
Yes	Yes	Yes	Minor	Nil	Style change
Yes	Yes	Yes	Minor	Minor	Product-line extension
Yes	Yes	Yes	Significant	Minor	Product improvement
Yes	Yes	Yes	Major	Major	New product
Yes	No	Yes	Major	Major	Start-up business
No	No	No	Major	Major	Major innovation

Source: Von Stamm (2008). Managing innovation, design and creativity. 2nd ed. Glasgow: Bell & Bain.

Moreover, many researchers agree that innovation can come up not only as a product or service concept, but also can be implemented in such areas as process or business model (Tidd, 2001) or paradigm innovation (Bessant and Tidd, 2007), position innovation (Francis and Bessant, 2005) which is related to the context in which a product or service are introduced. Since there are different areas where innovation can be introduced and

previously discussed types of innovation – discontinuous, radical and incremental – the innovation-scape can be (Tidd et al., 2001) presented in the Table below.

Table 4. Examples of each type within each category

Discontinuous	Cars instead of horses	Internet banking	Pilkington's floating glass	Internet
Radical	Hydrogen powered cars	A new kind of mortgage	Gas-filled thermo glass panes	Online sales & distribution of computers
Incremental	New car model	Different mortgage feature	Different colored glass	Selling in business parks instead of town centers
	Product	**Service**	**Process**	**Business Model**

Source: Von Stamm (2008). Managing innovation, design and creativity. 2nd ed. Glasgow: Bell & Bain.

Furthermore, Paul Trott in his book 'Innovation management and new product development' also distinguishes 7 types of innovation types, which are presented in the Figure 1.

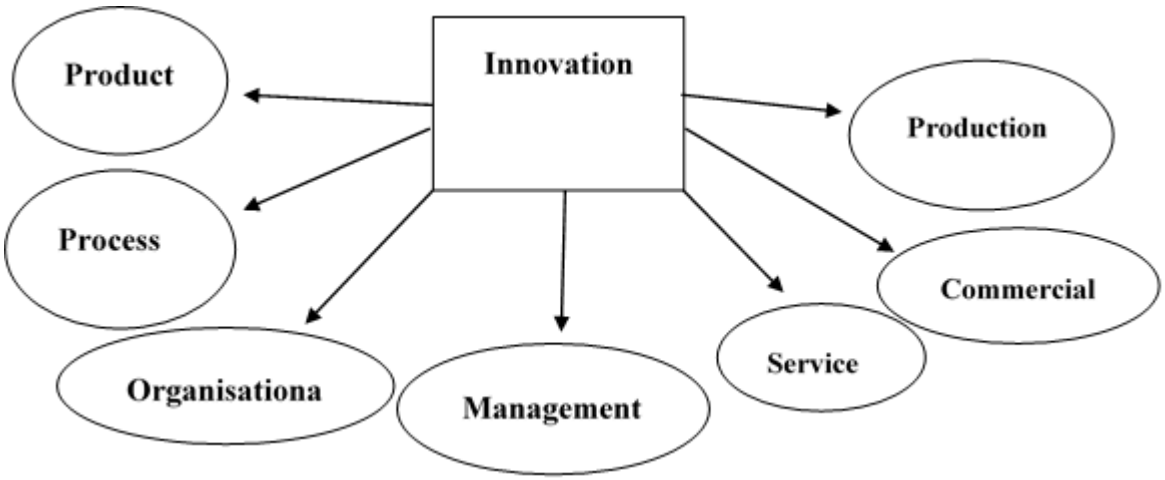


Fig 1. Trott's types of innovations

Source: Trott (2005). Innovation Management and New Product Development. 3rd ed. University of Portsmouth, Great Britain.

Clarysse et al. (1998) and Lundvall's (1992) classifications are more general and identify four domains of innovation, presented in the Figure 2.

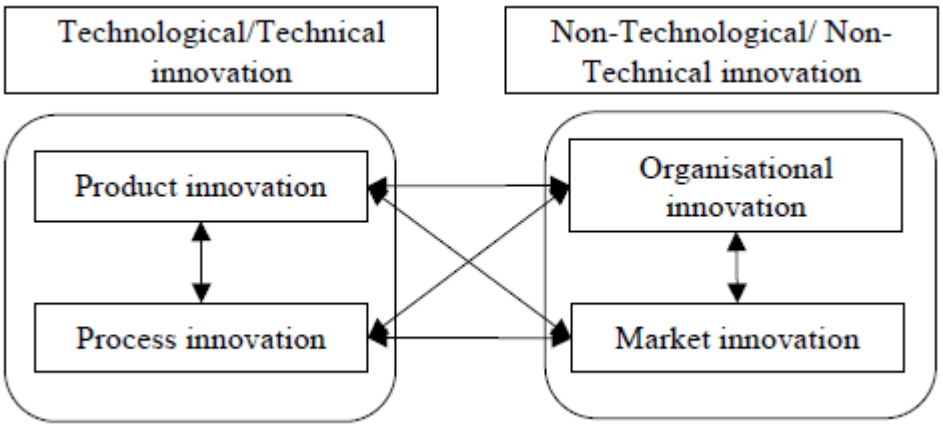


Fig 2. Four domains of innovation

Source: Bigliardi and Dormio (2009). An empirical investigation of innovation determinants in food machinery enterprises. European Journal of Innovation Management. Vol. 12 No. 2, pp. 223-242.

Generally, product innovation is a good, service or idea that is perceived as new; process innovation is the adaptation of existing production lines or an installation of a new infrastructure or technology, which allows the creation of new products; organizational innovation are changes in marketing, purchases, sales, administration, management, staff policies, while market innovation is the exploitation of new markets or the penetration of new market segments within existing markets. Figure 1 perfectly explains Lundvall's (1992), definition where innovation can be considered an ongoing process of leaving, searching and exploring which results in new products, new processes, new forms of organization and new markets.

2. The Lithuanian innovation framework

In order to be more extensive in analyzing Lithuanian innovation peculiarities the need to overview insights of Lithuanian authors emerges. In their book on innovation management Melnikas, Jakubavicius and Strazdas (2000) define innovation as a functional and advanced novelty, oriented to changing the old to the new. Innovation can be seen as an idea, activity or a new tangible object, which is new to people or organization. These authors developed a framework for innovation classification, which is highly applicable and is not inferior than any other model developed by well-known international scholars:

Table 5. Lithuanian innovation classification framework

Classification according:	Patterns:	Explanation:
Content	Product	The creation, production and usage of new final products (means of production, consumable goods, tangible and intellectual property)
	Technological	The creation and implementation of new technologies
	Social	The creation and implementation of new economic, managerial, organizational and other structures in various activities
	Complex	Synthesis of product, technological and social innovations
Level of implementation	Human	Implemented by an individual himself
	Companies, organizations and institutions	Implemented on a company basis
	Society or state	Implemented by a society or a nation
	Ecosystem	Changes the surrounding environment
	The world	Innovation that changes the world
Extent of innovation	Single	Implemented on time only
	Multiple	Can be implemented more times
Novelty of innovation	Radical	A completely new and unseen innovation, which completely changes society activities.

	Incremental	Improvement and supplementation with existing measures, according to the needs of society
Organizational characteristics	Internal	Innovation development and implementation is held inside the organization
	External	The dissemination of innovation process functions among different organizations
Nature of innovation	Quantitative	The increase of productivity or volume of production,
	Qualitative	The increase of quality in production and management
Final result	Fundamental	The final result of innovation is an academic theory in written from
	Experimental	The final result of innovation is an example of a product, created according to an academic theory
	Basic	The final result is an example of a product which is used in mass production or an organization
	Diffusional	The final result is the application of a product already produced for mass production in a new specific market
	Conditional	the final result is modernization or improvement of already existing product, which is similar but has newer technological characteristics

Source: Prepared by authors, based on Melnikas, Jakūbavičius and Strazdas (2000). Inovacijų vadyba. Technika, Vilnius.

3. Innovation policy in European Union and Lithuania

The EU strategy for economic growth: Europe 2020 emphasizes the importance of innovation in order to ensure a stable growth of the EU economy. Research and development and innovation should help Europe to stay competitive in the global knowledge economy. One of the key issues is to ensure access to finances for research and innovation, which will foster innovative ideas and turn them into new products or services that create growth and employment opportunities. A lot of new initiatives have been introduced to foster the innovation policy in the EU.

The European Commission has developed the Innovation Union flagship initiative 'Innovation Union', which is expected to improve innovation conditions in the European Union. José Manuel Barroso emphasized the importance of speeding up industrial innovations by ensuring the timely deployment and commercialization of key technologies to help European firms benefit from globalization and have the access to new markets through new trade agreements.

'Open Innovation 2.0', where the aim is to create an action plan, is to help achieve a sustainable economy and society, encourage innovation between the state and business sectors, through the development of public-private partnerships. Furthermore, in order to facilitate co-operation and knowledge sharing between national and regional stakeholders, European Innovation Partnerships are to be set up. This will create a 'knowledge triangle' of research, education and innovation, which will create interaction between these three sides. The open innovation approach fits well efforts to bring Europe back to a sustained economic activity and prosperity. Like Europe 2020, open innovation thrives on the involvement of all stakeholders – in government, industry, academia and citizens. This is why it is focused on forward public-private partnerships for innovation and European innovation partnerships on such issues as healthy ageing and raw materials.

The European Union outlines specific activities and policy priorities to boost innovation processes: the added-value manufacturing; food4future – sustainable supply chain from resources to consumers; innovation for healthy living and active ageing; raw materials – sustainable exploration, extraction, processing, recycling and substitution; smart secure societies, the urban mobility. In addition, according to the Standard Euro barometer 80 (2014), innovation is perceived as important in all member states: in Spain (79%, +8), in Portugal (72%, +10), Finland (68%, +9) and the Netherlands (69%, +9), Slovenia (62%, -8).

In order to measure the innovation performance in EU member states the "Innovation Union" initiative is using Innovation Union Scoreboard. It distinguishes three main types of indicators to measure the performance – Enablers (human resources, finance and support, open, excellent and attractive research systems), Firm activities (firm investments, linkages & entrepreneurship, intellectual assets) and Outputs (innovators, economic effects),

which fall into 8 innovation dimensions, and in total of 25 indicators. The main indicator to measure a country's innovation performance is the R&D intensity (the R&D expenditure as a percentage of GDP), which shows the extent of research and innovation activities in a specific country in terms of resource input. Currently, the target for 2020 policy is set for R&D intensity of 3% (R&D expenditure as a percentage of GDP). Figure 3 represents a summary of the Innovation Index 2014 and distinguishes four groups of member States, according to their performance:

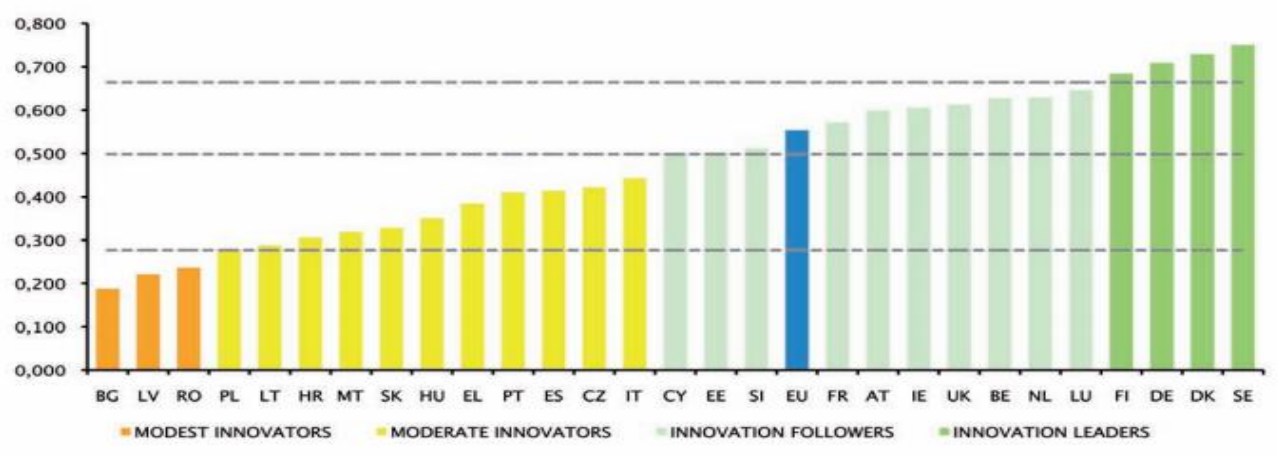


Fig. 3. Innovation performance in the European Union
Source: Hollanders and Sadki (2014). Innovation Union Scoreboard. Maastricht Economic and Social Research Institute on Innovation and Technology, Netherlands.

Innovation leaders are countries where the innovation performance is above the EU average, i.e. more than 20% above the EU average. Such countries as Denmark, Finland, Germany and Sweden belong to this category. These countries retained leading positions, compared to last year's edition of the Innovation Union Scoreboard. Innovation followers – innovation performance is close to the EU average level, i.e. less than 20% above, or more than 90% of the EU average. Austria, Belgium, Cyprus, France, Ireland, Luxembourg, Netherlands, Slovenia and the UK belong to this group. Moderate innovators are the countries with the innovation performance below the EU average at relative performance rates between 50% and 90% of the EU average. Such countries as Croatia, Czech Republic, Greece, Hungary, Italy, Lithuania, Malta, Poland, Portugal, Slovakia and Spain belong to this group. Modest innovators – with the innovation performance level well below the EU average, i.e. less than 50% of the EU average. Bulgaria, Latvia and Romania belong to this category.

According to this research, Lithuania is a moderate innovator, which is below the EU average; however, within the European Union Innovation Scoreboard 2013, Lithuania was among modest innovators and improved its innovation performance to a moderate innovator's level. This result is achieved through the Innovation Development Programme 2014–2020, a strategic document, which sets guidelines, goals and objectives for the innovation policy in Lithuania. The main goal of this programme is to enhance the competitiveness of the Lithuanian economy by creating an efficient system of innovation stimulating the innovativeness of economy. The objectives are as follows:

- to develop an innovative society by developing new knowledge and its application;
- to enhance business innovation potential;
- to promote the creation of value networking, development and internationalization;
- to increase efficiency of innovation policy-making and implementation and to promote innovation in the public sector.

The activity, formation and implementation of the Innovation Development Programme 2014-2020 is monitored by the Ministry of Economy and Ministry of Education and Science. It ensures that all objectives are met and best results achieved. Lithuania is still less innovative than most European countries, but there is a positive trend of catching up visible, which makes the choice of Lithuania and its fast food industry as an object of the present research pertinent and value-adding.

4. Methodology

The study is centred on quantitative analysis, focused on finding out what innovations are the most attractive to Lithuanian customers while selecting a fast food restaurant, and what companies should do in order to increase profit. The main objectives of this study were to analyze whether innovations, in specific restaurant selection criteria groups, are important to customers; understand customer preferences and perceptions of the role of fast food innovation among different age, gender and income groups. First of all, the previously accomplished research on selection criteria of fast food restaurants were overviewed and summarized (see Table 6).

Table 6. Overview of research on selection criteria

Name, Author, Year	Methodology	The Goal	Results
Consumer evaluations of fast food services: a cross-national comparison. Moonkyu Lee, Francis M. Ulgado (1997).	The questionnaire was used as the main tool for the research. It consisted of three parts: measurement of expectations about provided services, measurement of perceptions of those services and demographic characteristics.	The goal of this research was to find out if there were significant differences in the US and South Korean consumers' perceptions of a fast-food restaurant service.	The results indicated that significant differences may exist between the US and South Korean patrons in terms of their expectations and perceptions of fast-food restaurant services, especially McDonald's.
Restaurant marketing: selection and segmentation in Hong Kong. Jakša Jack Kivela (1997)	A pilot questionnaire was used containing open-ended questions that were distributed to 60 people.	The goal was to determine customers' perceptions of restaurants and to assess the way they choose different type of restaurants, and whether their decisions support the perception of restaurants.	Results showed that consumer perceptions and preferences of choice variables vary considerably by restaurant type. The most significant selection criteria of restaurant type was dining occasion.
Consumer perception about fast food in India: an exploratory study. Anita Goyal and N.P. Singh (2007)	The research used multivariate statistical tools to estimate importance of selection criteria. The questionnaire was used containing demographic and behavioral questions, factors affecting selection, comparisons between fast food restaurants, media for source of information for fast food restaurants and provision of information sharing.	The goal was to estimate importance of various factors affecting the choice of fast food restaurants by Indian young consumers.	The results identified that young consumers are influenced by variables like environment at home, educational environment, availability and accessibility to fast food providers, and social environment in their surroundings.
Consumer behaviour in the market of catering services in selected countries of Central-Eastern Europe. Anna Dabrowska (2011)	The consumer study of an Omnibus type was carried out by GfK Research Company. The qualitative and quantitative analysis were performed.	The purpose of this paper is to present consumer behaviour in the market of catering services in Lithuania, Latvia, Poland and Ukraine	Research identified specific consumers' selection criteria of catering service, which were: price, quality, 'self-service' and nutrition.
Factors important for the selection of fast food restaurants: an empirical study across three cities of Pakistan. Usman Ehsan (2012).	In total 447 questionnaires were randomly distributed among university students of three cities. Data analysis was done in SPSS Version 17. Important factors were identified by factor analysis and ANOVA was used to measure the differences (among cities).	The primary purpose of this study is to explore the factors that influence selection of restaurants and also to identify the cultural or regional differences in consumer behaviour amongst students.	According to the findings, customers considered price, variety of food, promotional deals and timely service as important factors for the selection of fast food restaurants.

Source: Prepared by authors, according to Lee and Ulgado (1997); Kivela (1997); Goyal and Singh (2007); Dabrowska (2011) and Ehsan (2012)

After summarizing the research of other scholars, it was decided to use a survey questionnaire with closed questions to avoid ambiguous answers. The collected answers were analyzed using SPSS software, which helped to quickly and efficiently process the large amount of data. The online survey was launched on the 2nd April 2014 and closed on the 2nd May 2014. By that time 131 respondents had fully completed it. The sample size of 131 was calculated by using the formula provided below:

$$n = \frac{p(1-p)}{\left(\frac{e}{z}\right)^2 + \frac{p(1-p)}{N}}$$

Source: Dikčius (2006). Marketingo tyrimai.Teorija ir praktika. Vilnius: VVAM, p.130

Variables in the formula stand for:
n – sample size
N – population size. According to Statistics of Lithuania there are 1174687 people aged from 15 to 44 who are considered as a targeted market for fast food restaurants.
p – 0.5, as the proportion of population is not known.
e – margin of error 8.5%.
z – z-score is 1,96 with 95% level of confidence.

The questionnaire contained three groups of questions: behavioral, scale and demographic questions. Firstly, respondents were asked to answer 5 behavioral questions in order to examine the restaurant visitors' behavior. These questions included: the frequency of visiting a restaurant; amount of money spent there; time of a day when usually a restaurant was visited; restaurants visited most frequently and restaurants visited during last three months. Later on the distribution of results was analyzed according to the age and income categories. The 1st and 2nd questions were composed using the ordinal scale and the 3rd, 4th and 5th – nominal scale. Secondly, the 7 scale questions were provided to respondents to understand their opinion towards innovation. All these questions were designed using the Stapel scale, where respondents had to evaluate the importance of criteria while selecting a restaurant (when 1 was not important, 10 - very important). The 6th question asked to evaluate the extent of the importance of innovation in fast food restaurants in general. For 7th, 8th, 9th, 10th and 11th questions 31 variables were selected representing customer selection criteria of fast food restaurants that could be divided into 5 distinctive groups:

1) Food characteristics: selection variety of meals, taste, presentation, variety of beverages, type (country specialty), healthiness (nutrition), quality of food, quantity of food.
2) Service aspects: speed of service, food serving style, kindness of staff, free extras, professionalism of staff, ordering ease, drive through possibility, home delivery.
3) Location: distance from work, distance from home, distance from entertainment, distance from entertainment, distance from shopping center, uniqueness of the location.
4) Physical characteristics: comfort of the interior, availability of free spaces, modernity of restaurant, cleanliness.
5) Additional features: entertainment, hours of operation, discounts, music, overall image and reputation, internet connection.

12th question asked people to evaluate the importance of innovation among variable groups in previously mentioned questions. Finally, 5 demographic questions were used in order to find out demographical division regarding gender, age, level of education, marital status and income. The 13th, 15th and 16th were made using nominal scale, while 14th and 17th – ordinal. Out of 131 respondents 53.4% (n=70) were female and 46.6% were men (n=61). The majority of people who responded were aged from 18 to 25, making 74.8% (n=98) of total respondents. Another 15.3% (n=20) belonged to the age group 26-35 and 9.9% were in other age groups. None of respondents were younger than 18 and older than 60 years old. The research showed that 52.7% (n=69) of respondents were undergraduate students at university, 31.3% (n=41) had already finished it, 9.2% (n=12) were students at college and 6.9% (n=9) – at high school. Out of 131 respondents 64.1% (n=84) were single. Other groups of respondents were living in unregistered customary marriage, were married, divorced or widowed

respectively taking 16.8% (n=22), 15.3% (n=20), 3.1% (n=4) and 0.8% (n=1). The distribution of the sample, based on net income showed that the majority of respondents – 37.4% (n=49) earned from 1001 Lt to 2000 Lt. 29% (n=38) received up to 1000 Lt, 19.8% (n=26) from 2001 Lt to 4000 Lt, and 13.7% (n=18) more than 4000 Lt. Finally, the typical respondent of this research was either male or female single student with income from up to 2000 Lt per month.

5. Fast food restaurant selection criteria and its role on innovation

The quantitative research provided important results on respondents' behaviour in the fast food market. It showed that 48.9% (n=64) visit a restaurant once a week, other 23.7% (n=31) – more than once a week. As a result, the tendency of weekly visiting habit can be noticed among almost a half of respondents. Also, Kendall's tau-b test revealed that a positive correlation exists between the frequency of visiting a restaurant and age groups, with the value of 0.224. Since the value falls into interval 0.2 – 0.4, correlation is considered to be weak. The significance of correlation is tested by using Approx. Sig. parameter, which in this case shows significance level of 0.002 (less than 0.05 – significance level of quantitative research). Consequently, it is assumed that people within higher age group chooses fast food restaurant less frequently than youngsters.

The majority of respondents, 64.9% (n=85), stated that they usually spend from 10 Lt to 20 Lt in a restaurant, while other 16.8% (n=22) – less than 10 Lt and 18.4% (n=24) more than 20 Lt. The age and income are important factors affecting the amount spent in a fast food restaurant, because Kendall's tau-b measurement showed a weak positive correlation between amount of money spent and age (approx. sig. = 0.002, value = 0,305), and income (approx. sig. = 0.00, value = 0.301). It is assumed that people within higher age and income groups tend to spend more money in a fast food restaurant. According to the analysed data, it is noticed that more than a half of people choose dining in the evening, making 54.2% (n=71) of total respondents. Others visit a restaurant similarly either in the afternoon or at night – 24.4% (n=32) and 21.37% (n=28) respectively.

Further, respondents were asked to choose few restaurants they visit most frequently. The analysis revealed that the most popular fast food restaurant in Lithuania is McDonald's – 109 respondents visited McDonald's frequently. The second place was shared by Hesburger and Pizza Express, scoring 56 respondents each. Sushi Express followed with 46 respondents. It is also necessary to mention that 11 respondents indicated other fast food outlets not presented in the questionnaire as most frequently visited ones. Those are: Chief Pizza, Pizza Max, Burger King, Subway, Statoil, CanCan and Domino. Results are visible in Figure 4.

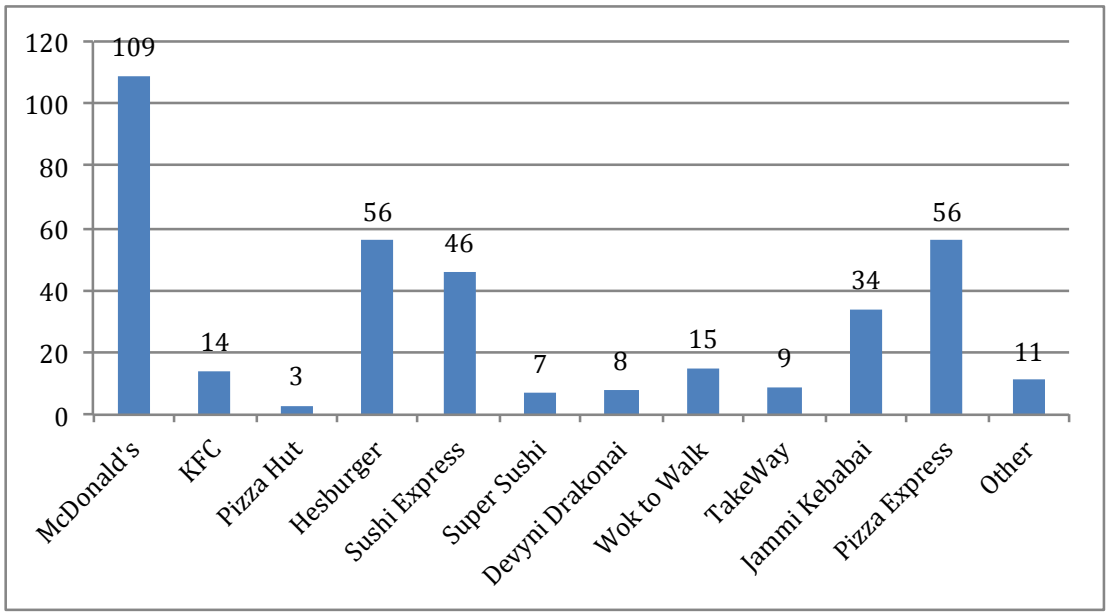


Fig. 4. Most frequently visited restaurants, by numbers of answers
Source: prepared by authors

Furthermore, respondents were asked to evaluate the importance of innovation from 1 to 10 while selecting a fast food restaurant. As a result, according to the mean, the overall importance reads 7.64 out of 10. It can be assumed that respondents tend to think that innovation is an important factor influencing their selection of fast food restaurant. However, it is crucial to outline that opinions among respondents differ considerably because the standard deviation is high (2.065) and the values vary from 1 to 10 (see Table 7).

Table 7. Importance of innovation while selecting a fast food restaurant.

	N	Minimum	Maximum	Mean	Std. Deviation
Importance of innovation	131	1	10	7,64	2,065
Valid N (listwise)	131				

Source: prepared by authors, according to survey results.

To continue, the analysis provided results upon the importance of particular selection criteria in five distinctive groups. An ingenious analysis was done to check the overall importance of innovation in these groups. First of all the quality of measurement was checked with Cronbach's α in order to find out if factors were reliable enough to use. Consequently, results showed that Cronbach's α of groups – 'service aspects', 'physical characteristics', 'additional features' and 'innovation in factor groups' were close to 0.8 which is considered as ideally acceptable condition. Factor groups 'food characteristics' and 'location' were close to 0.7 which is also an acceptable reliability coefficient, since lower thresholds are also used in the literature (Nunnally, 1978; Santos, 1999). Finally, it can be assumed that all the selection criteria used in the` research are significantly reliable. Results are illustrated in the Table 8.

Table 8. Cronbach's Alpha

	Cronbach's Alpha	N of Items
Food characteristics	0,742	8
Service aspects	0,790	8
Location	0,731	5
Physical characteristics	0,770	4
Additional features	0,769	6
Innovation in factor groups	0,884	5

Source: prepared by authors, according to survey results

Based on research results, respondents indicated taste as the most important restaurant selection criterion related to food (μ=9.63). Respondents' opinions varied the least comparing to other factors, because the standard deviation was the lowest – 0.91. The quality of food (μ=9.21) and quantity of food (μ=8.15), as well as presentation (μ=8.48) were also selected as highly important factors with relatively lower standard deviations – 1.29, 1.65 and 1.689 respectively. The complete results are shown in the Figure 5.

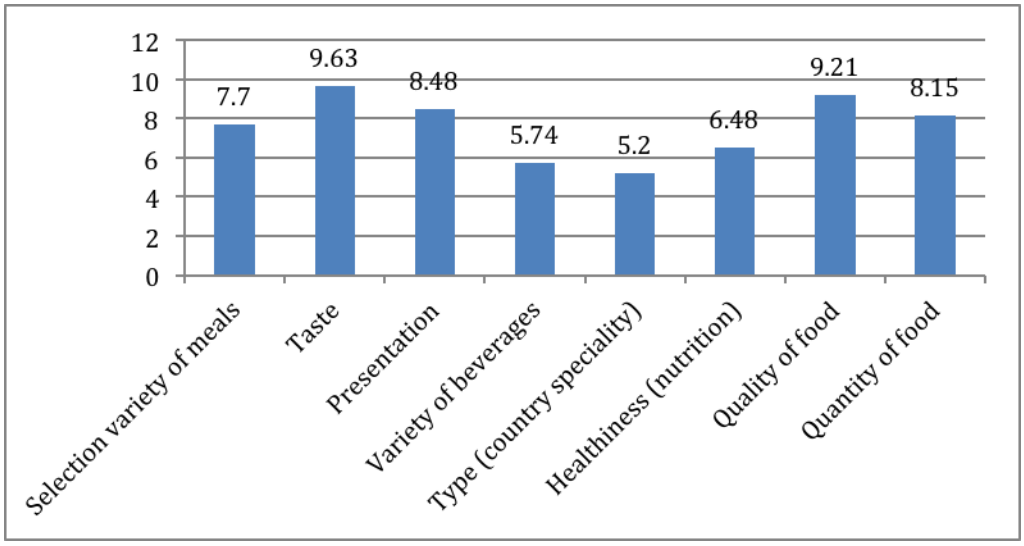


Fig. 5. Means of food characteristics

Source: prepared by authors, according to survey results

In addition, the Spearman's test was conducted in order to find out whether the correlation between particular factors and age and income groups existed. Negative significant correlation (sig. (2-tailed) = 0.035, r = -0.184) was identified between 'selection variety of meals' and income groups. It is considered to be a very weak correlation, since the value falls into interval 0 – 0.2. A single star shows the error possibility which does not exceed 0.05. Therefore, it can be assumed that people with higher income pay less attention to selection variety of meals. Although the majority of service aspects are considered to be of high importance while selecting a fast food restaurant, 'speed of service' can be distinguished as the most important one (μ=9.02) with a relatively lower standard deviation – 1.55. Respondents also selected 'kindness of staff' (μ=8.82), 'ordering ease' (μ=8.73) and 'food serving style' (μ=8.26) as very important factors. See results in the Figure 6.

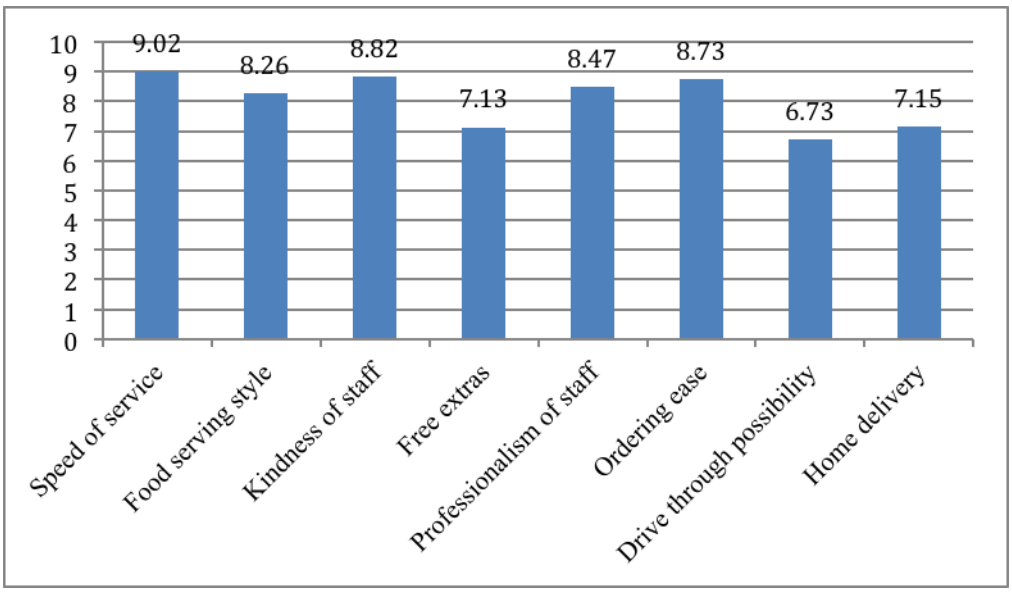


Fig. 6. Means of service aspects

Source: prepared by authors, according to survey results

Kindness of staff

The analysis revealed that home delivery tends to be a more important selection criterion among younger people, since a weak negative correlation exists between the factor 'home delivery' and age groups (sig. (2-tailed) = 0.009, r = -0.228). A double star indicates that 1% maximum error is allowed. Also, Spearman's test showed a very weak negative correlation between 'free extras' and income groups (sig. (2-tailed) = 0.025, r = -0.196). Thus, it can be assumed that people who earn less prefer free extras offered by a restaurant more. Even though opinion of respondents deviates considerably, 'distance from home' (μ=7.63) and 'distance from entertainment' can be distinguished as the most important selection factors of a restaurant. This means people prefer restaurants that are closer to their home and various entertainment venues. The latter is negatively correlated with age (sig. (2-tailed) = 0, r = -0.317) and income groups (sig. (2-tailed) = 0.001, r = -0.283). It can be interpreted that younger people, who earn less, tend to look for restaurants around entertainment venues, due to a specific life style and transportation difficulties. Moreover, there is a very weak negative correlation identified between 'distance from shopping centre' and income groups (sig. (2-tailed) = 0.028, r = -0.193). It can be concluded that people with higher income are less concerned whether a fast food restaurant is in or around a shopping centre. Results are shown in Figure 7.

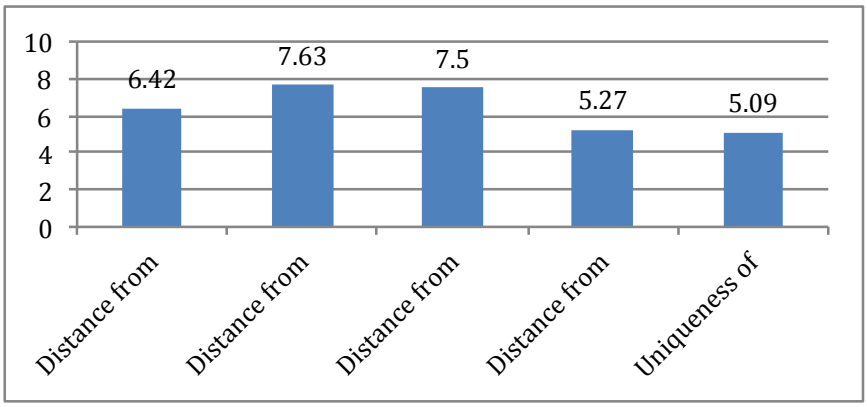


Fig. 7. Means of location criteria

Source: prepared by authors, according to survey results

The most important physical characteristics of a fast food restaurant identified by respondents are cleanliness (μ=9.5) and availability of free spaces (μ=8.47) with relatively lower standard deviations – 0.898 and 1.619 respectively. See results in the Figure 8.

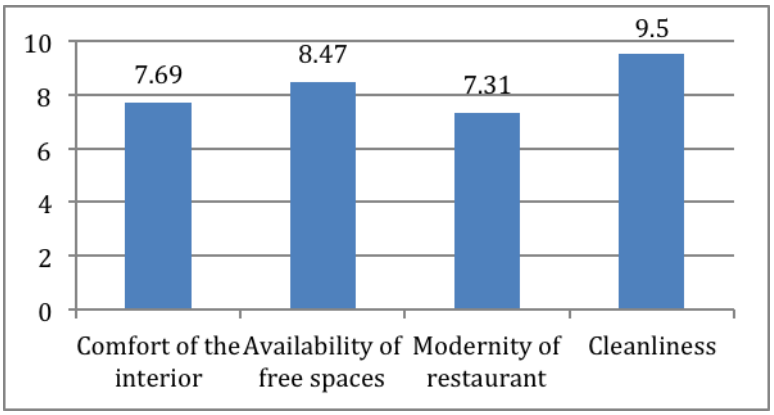
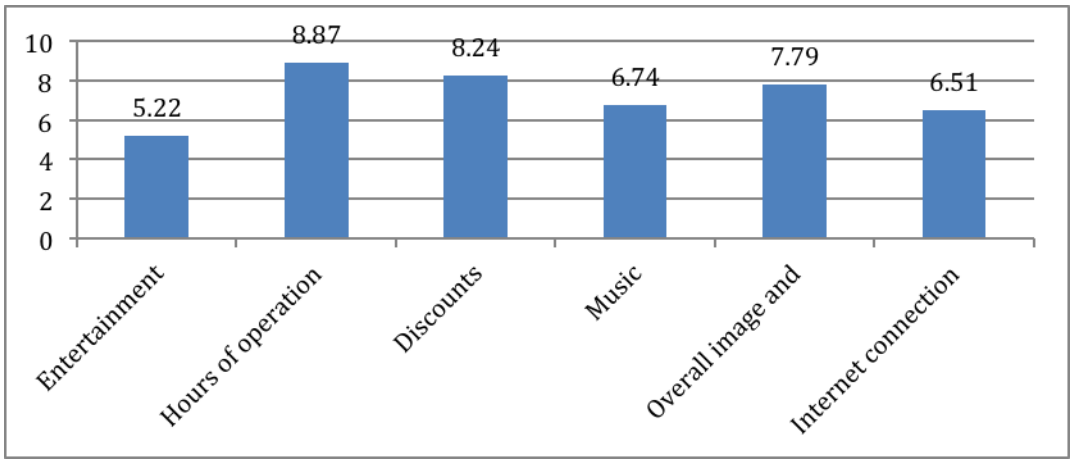


Fig. 8. Means of physical characteristics

Source: prepared by authors, according to survey results

Furthermore, respondents also evaluated the importance of additional features for restaurant selection. As the most important factor was indicated 'hours of operation' (μ=8.87) with the lowest standard deviation – 1.52. Other criteria like 'discounts' and 'overall image and reputation' also got high means – 8.24 and 7.79 respectively. Results are visible in the Figure 9. Moreover, the analysis revealed that a weak negative correlation exists between age groups and 'discounts' (sig. (2-tailed) = 0, r = -0.348), 'internet connection' (sig. (2-tailed) = 0.013, r = -0.217), music (sig. (2-tailed) = 0, r = -0.305) and a very weak negative correlation is noticed between age groups and 'hours of operation' (sig. (2-tailed) = 0.038, r = -0.182). Conclusions can be drawn that older people tend to care less about hours of operation, availability of internet connection, discounts and music in a fast food restaurant. In addition, a weak negative correlation is detected between income groups and discounts (sig. (2-tailed) = 0, r = -0.345). That means discounts are less important for people with higher income.



Fig, 9. Means of additional features

Source: prepared by authors, according to survey results

Finally, respondents were asked to evaluate the importance of innovation in particular criteria groups. Results revealed that the most innovation is needed in the areas related to food and service. They were marked by the highest means – 8.2 and 8.18 respectively, although opinions varied considerably among respondents. Innovation for additional features of a fast food restaurant was evaluated to be the least important (μ=6.32). Location (μ=7.05) and physical characteristics (μ=7.04) were evaluated similarly important. It is also crucial to outline that such groups as 'service aspects', 'physical characteristics' and 'additional features' are negatively correlated with income groups. It was detected that a very weak correlation within groups 'physical characteristics' (sig. (2-tailed) = 0.032, value = -0.188), and weak correlation within groups 'service aspects' (sig. (2-tailed) = 0, value = -0.302) and 'additional features' (sig. (2-tailed) = 0.005, value = -0.242) exists. As a result, the more income people receive, the less they are concerned with innovation in previously mentioned groups of restaurant selection criteria. Results are illustrated in Figure 10.

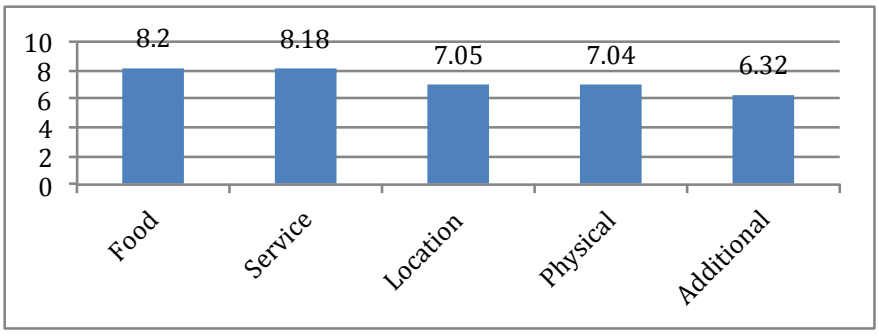


Fig. 10. Means of selection criteria groups; respondents' opinions

Source: prepared by authors, according to survey results

It was also intended to carry out Independent-samples T Test analysis in order to find out whether the opinion about innovation importance in particular selection criteria groups differs by gender. In all cases, female generated higher means then male respondents, leading to the assumption that women more than men consider innovation to be important (see Figure 11). However, results showed that there was no significant difference between male and female opinions about innovation importance in particular fast food restaurant selection criteria groups, since Sig. (2-tailed) showed higher values than 0.05.

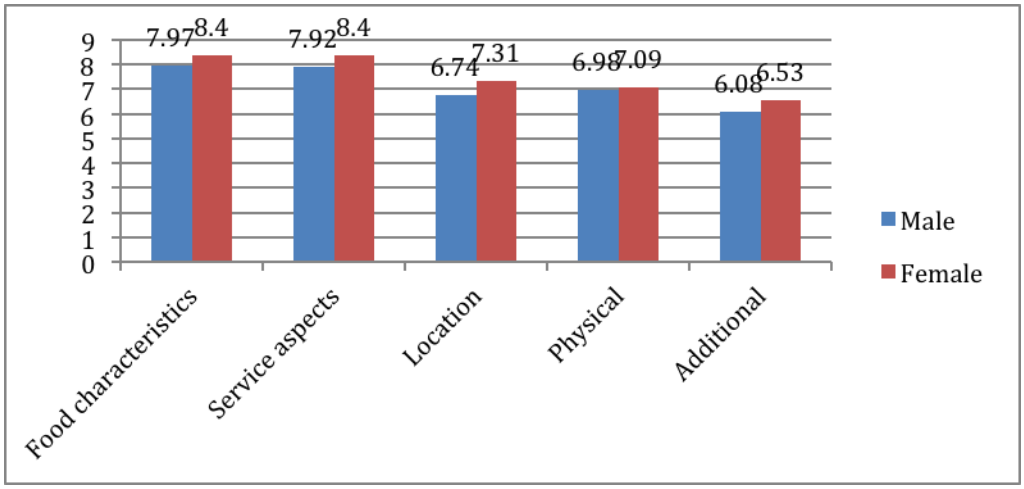


Fig. 11. Means of selection criteria groups by gender

Source: prepared by authors, according to survey results

Several conclusions can be drawn derived from the survey. Lithuanian fast food restaurants should be more innovative in their food and service development processes and should pay a sufficient attention to location and additional features of their restaurant in order to attract more customers and fulfil their needs. They need to improve their product and service commercialization processes and implement these innovations more often.

Conclusions and recommendations

The paper tackles the importance of innovation from the consumers' perspective. It also provides insights about consumer behaviour and selection criteria of fast food restaurants, which are beneficial for fast food restaurants in order to be successful, commercialize their innovations more efficiently and generate higher profits. The aim was to overview how consumers' age, income and gender influence certain fast food restaurant selection decisions and perception towards innovations in different categories.

The quantitative research revealed that the most important innovations to customers are in food characteristics, such as taste, food quality, food quantity, presentation and service aspects, such as speed of service, kindness of staff, the ease of ordering. It shows that Lithuanian consumers mostly care about things that they can see in their plate, which leads to a conclusion that companies should apply product innovations to improve the food quality. Furthermore, they need to develop their service and process innovations in order to provide their products in the most attractive way; to improve operational efficiency and ensure high standards with employee training, competency building and strategy creation. The analysis showed that the most important selection criteria are: cleanliness and available free spaces within the physical characteristics group, as well as hours of operation, discounts and overall images out of additional features group. Finally, the distance from home and entertainment spots are also selected as important factors for selection of a fast food restaurant.
Younger people tend to visit fast food restaurants more frequently than older. The amount spent is significantly lower within lower age and income groups. Thus, the tendency can be noticed that younger people with low income are the most frequent visitors of fast food outlets. Younger people are more attracted by service aspects of fast food restaurants like home delivery, and additional features, such as discounts, internet connection, music

and hours of operation. People with lower income tend to spend less amount of money in a restaurant. Consequently, they are more concerned with free extras and provided discounts. Therefore, people within higher income group tend to care less about service, physical and additional features of a fast food restaurant. The conclusion can be drawn that the overall concern regarding innovations diminishes within higher income. It is worth mentioning that people who earn more state that distance of a restaurant from entertainment spots and shopping centres are less important.

A new fast food restaurant in Lithuania should target young people with lower income, and should focus its innovation commercialization process on this demographic segment. A restaurant should be located around entertainment spots; it should provide home delivery service and consider longer hours of operation, since these are important factors for younger people. Such place should also include features such as internet connection and music. As lower income people spend less, a restaurant should take into account the possibility of free extras and discounts. It is also necessary to outline that respondents think that cleanliness and availability should be of high concern for a new restaurant.

The Lithuanian fast food market is rapidly expanding and is a very perspective environment. However, to be successful in the Lithuanian fast food market, an entrepreneur has to be innovative, able to commercialize innovations and understand consumer behaviour. The present research is value-adding to both representatives of the fast food industry, who are interested in this particular region, and scientists due to the analysed liaison between the consumer behaviour and innovation processes.

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COUPONS AS EFFECTIVE AND INNOVATIVE MARKETING TOOL

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Abstract. The article analyses concept of sales promotion, coupons theoretical aspects, coupons as effective sale promotion tools**.** Coupons for shopping are what the shoppers are mostly looking for. If you are not well familiar with these coupons available online, it is actually a special offer which gives you the flexibility to get a discount from your purchased product financially or in refund form. These coupons are very important in encouraging the buyers to buy the product and thus help the companies to increase the sales. Coupons now are considered as part of recent trends of major businesses to promote their sales. There are several benefits of using online shopping coupons including specially the time that you save.

Keywords: coupons, sales promotion, marketing

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JEL Classifications: M31, M37

1. Introduction

Money will always remain in people's minds. At least as long as we live in the capitalist world, is confronted with as many of your dreams life, which is perhaps the most important element in many bank account, the ability not to worry about bills and financial independence. However, most of the life and will remain a dream and a fantasy world and reality, however, will have to take care of maintenance next month, with no debt and just live a comfortable life, which is not a lot of stress caused due to lack of money. Well, that this live, it is also necessary with some effort. Apart from the fact that it is important to have a good and reliable source of income, it is equally important to be able to save. From utilities, such as gas, water, electricity, before withdrawing some luxury or simply the pleasure of providing goods, you can always find areas where you can save. Likewise, the importance of saving and opportunities for saving discovery and exploitation is notorious. Coupons traders are issued with the aim to attract new customers or retain old ones. The discount vouchers are always greater benefits received by sellers, rather than consumers. However, this does not mean that consumers who use rates remain a fool's place. Any vendor however, is an entrepreneur and it is important to know how to wring the maximum benefit, so whichever promotions or discounts always very precisely measured and weighed.
Aim of this article to analyze coupons as innovative sale promotion tool.

Research object – coupons.

Research problems arise from research questions "Are coupons innovative and effective sale promotion tool?"

Methodology. Scientific analysis of the literature and literature analysis was performed in order to reveal the sales promotion, coupon theoretical aspects of coupons as an effective and innovative promotional tool.

2. Results and discussion

This study extended results from the others study in a number of directions: (a) it extended the finding that people use a coupon to make price discount; (b) results provide convergent evidence that the use of coupon information make price discounts related to the availability of alternate sources of price information by studying the use of coupon information in the presence and absence of information regarding competitors' prices. Coupons is based on the tradeoff between costs of using coupons and the savings obtained, it is shown that coupons can serve as a price discrimination device to provide a lower price to a particular segment of consumers. Based on a price theoretic model, it is shown that the users of coupons are more price elastic than nonusers of coupons and that the opportunity cost of time and other household resource variables are determinant factors in consumers' decisions. Coupons serve as a market segmentation tool. Distinctions such as age or company affiliation have been used to segment consumers in products as diverse as movie tickets and mortgage accounts (Ladd, 1998). For example, purchase history signals whether a consumer should receive a coupon at check-out (Rossi, McCulloch, and Allenby, 1996). Coupon efficiency increases when there is a lower retail price. The results are of interest to managers planning a promotion calendar and deciding whether to coordinate price promotions with coupon events. Coupons are promissory notes given by manufacturers or retailers to consumers that in effect offer a reduced price for a particular brand or item. The coupon indentifies a specific discount upon the purchase of a product that is often specified by size and that is of limited duration. Most retailers honor coupons presented by shoppers at the time of purchase. The retailers are later reimbursed the face value plus a handling fee.

3. Sales promotion

Mesaroš, Đokić, Penić (2013) said, that one of the integrated marketing communication tools is sales promotion. Kotler and Keller (2006) identify consumer-targeted sales promotion tools (samples, coupons, cash return offers, low-priced packaging, premiums, repeat purchase programmes, prizes, raffles, contests, customer loyalty rewards, free trial periods, product warranties, tie-in promotion, cross-promotion, displays and point-of-sale presentations), then B2B sales promotion tools (price discounts, price allowances, free products), as well as tools for promoting business and sales force (fairs and conventions, sales contests, specialised advertising).
Chaharsoughi, Yasory (2012) stated, that sales promotions have become a vital tool for marketers and its importance has been increasing significantly over the years. Sales promotions are action-focused marketing events whose purpose is to have a direct impact on the behaviour of the firm's consumers. There are three major types of sales promotions: consumer promotions, retailer promotions and trade promotions. Consumer promotions are promotions offered by manufacturers directly to consumers. Retailer promotions are promotions offered by retailers to consumers. Trade promotions are promotions offered by manufacturers to retailers or other trade company's (Blattberg and Neslin, 1990). The number of definitions of sales promotions available have the idea that sales promotions area temporary and tangible modification of supply, the goal of which is to directly impact consumer, retailer and sales force behaviour.

As stated Chaharsoughi, Hamdard (2011) promotion is one of the key factors in the marketing mix and has a key role in market success. Sales promotion is used to ensure that consumers are aware of the products that the organization is offering. The promotional mix is the combination of the different channels that can be used to communicate the promotional message to the consumers. The channels to be used are advertising, direct marketing, public relations and publicity, personal selling, sponsorship and sales promotion (Rowley, 1998).

Esfahani, Jafarzadeh (2012) stated, that sales promotions provide a saving feeling and reduce the pain of paying. Sales promotions can also grant the access to higher quality brands which could not be bought at their normal price. Hedonic benefits are tied to intangible attributes and are experiential and affective. Some indicate that hedonic benefits of promotional actions are entertainment, exploration and expression. For example, for those consumers who enjoy hopping, some promotions may be amusing and increase this entertainment benefit provided by the product purchases.

According Park, Choi, Moona (2013) sales promotion provides the incentive for consumers to purchase some specific products, and this incentive is different from the incentive provided by advertising with respect to the reasons to purchase those specific products. The purpose of a sales promotion is to attract new customers, maintain existing customers who are contemplating switching brands and give incentives to customers who are about to use competing products.

Preko (2012) mentioned, that most marketers believe that a given product or service has an established perceived price or value, and they use sales promotion to change this price value relationship by increasing the value and/or lowering the price compared with other components of the marketing mix (advertising, publicity, personal selling).

As stated Išoraitė (2013) sales promotions - the set of methods for inducing the consumer to buy the product. Sales promotion includes in one operational system connected measures selected not only support, but also from other elements of the marketing mix. Sales promotions incentives are the following:

- free product samples distribution;
- the display devices;
- the discounts and rebates;
- product presentations and demonstrations;
- the contests and sweepstakes;
- the coupons (vouchers).

Sales promotion - this is set to buyers targeted actions that will create more favourable conditions for acquisition of goods, to increase their sales. In order to achieve sales growth can be promoted not only end users, but also sellers. Sales promotions may have three directions:

- the promotion of end-users;
- the promotion of traders (if your products or services other trades companies);
- the promotion of sales staff.

End-user promotion carried out by the manufacturer or vendor to speed up the purchasing process. Both possible and Cooperation to t. y. cost sharing in order to encourage the sale of producer goods dealer outlets.

Traders promotion. The manufacturer may encourage a wholesaler and a retailer, wholesaler - retailer.

Sales staff promotion going on inside the company. This can be a bonus for the largest turnover, competition for the best month of the seller's name, and so on.

Most companies forget to promote your sales staff the belief that it is enough that the employee receives a salary. Additional motives encourage more to and it should not be forgotten.

Buyers may be based on different sales promotion of the benefits: savings, quality, comfort, perceived value, research / knowledge and entertainment. Sales promotion benefits to customers can be considered to be practical when It helps customers maximize the efficiency, effectiveness and economy shopping and hedonistic when providing internal stimulus, pleasure and self-esteem. Price is based on sales promotions to provide more

practical benefits. A large number of different promotional tools are used by retailers and manufacturers. Table 1 gives some examples of these tools.

Table 1. Examples of sales promotion tools. *Source*: Blattberg and Neslin (1990)

Retailer Promotions	Trade Promotions	Consumer Promotions
Price cuts	Case allowances	Couponing
Displays	Advertising allowances	Sampling
Feature advertising	Trade coupons	Price packs
Free goods	Spiffs	Value packs
Retailer coupons	Financing incentives	Refunds
Contests/premiums	Contests	Continuity programs
Double couponing		Financing incentives
		Bonus packs
		Special events
		Sweepstakes
		Contests
		Premiums
		Tie-ins

The business world today is a world of competition. A business cannot survive if its products do not sell in the market. Thus, all marketing activities are undertaken to increase sales. Producers may spend a lot on advertising and personal selling. Still the product may not sell. So incentives need to be offered to attract customers to buy the product. Thus, sales promotion is important to increase the sale of any product. Let us discuss the importance of sales promotion from the point of view of manufacturers and consumers.

Sales promotion is important for manufacturers because:

- increase sales in a competitive market and thus, increases profits;
- helps to introduce new products in the market by drawing the attention of potential customers;
- when a new product is introduced or there is a change of fashion or taste of consumers, existing stocks can be quickly disposed off;
- stabilizes sales volume by keeping its customers with them. In the age of competition it is quite much possible that a customer may change his/her mind and try other brands. Various incentives under sales promotion schemes help to retain the customers.

Sales promotion is important for consumers because:

- the consumer gets the product at a cheaper rate;
- it gives financial benefit to the customers by way of providing prizes and sending them to visit different places;
- the consumer gets all information about the quality, features and uses of different products;

Certain schemes like money back offer creates confidence in the mind of customers about the quality of goods; and v. it helps to raise the standard of living of people. By exchanging their old items they can use latest items available in the market. Use of such goods improves their image in society.

American Marketing Association (AMA, 2006), defining the sales promotion as the media and non-media marketing used to pressure consumers, retailers and wholesalers, using a predetermined means limited period of time in order to increase to consumer demand and increase product value. However, this definition does not reflect all the modern sales promotion items. It can be said that effective sales promotion within a limited period of time increases the base value of the product and directly stimulate the consumers' purchases, increases the effectiveness of sales and marketing personnel efforts. It can be used to to inform, persuade or remind target customers about the brand (product /service / shop).

As stated Hamm (1981) the principal purpose of coupons is to stimulate a brand's sales or market share. Coupons can achieve this goal by rejuvenating brand loyalty to existing brands, by encouraging consumers to try

new brands, by switching their loyalty to alternative brands, or by ensuring that trade deals offered at the wholesale level are passed on at the retail level. Coupons are often critical to the success of a new-product campaign. The number and size of the coupons will often determine whether a new product will be stocked by grocery retailers. Coupons may be one of the few tools available for small companies seeking regional distribution into a new niche product, because advertising is typically highly inefficient in these circumstances.

4. Coupons theoretical aspects

Donnelly (2012) stated that a coupon, a ticket, or document that can be exchanged for a discount or rebate, is often used as a key marketing and advertising technique. In 1887, Coca-Cola created the world's first coupon (Collard & Pustay, 2001, p. 1). By 1913, the company had redeemed 8.5 million tickets – coupons. In 1887 the Coca-Cola Company was incorporated in Atlanta, Georgia, with Asa Candler as one of the partners. He transformed Coca-Cola from an insignificant tonic into a profitable business by using innovative advertising techniques. The key to this growth was Candler's ingenious marketing including having the company's employees and sales representatives distribute complimentary coupons for Coca-Cola. Coupons were mailed to potential customers and placed in magazines. The company gave soda fountains free syrup to cover the costs of the free drinks. It is estimated that between 1894 and 1913 one in nine Americans had received a free Coca-Cola, for a total of 8,500,000 free drinks. By 1895 Candler announced to shareholders that Coca-Cola was served in every state in the United States.

The ticket mailed to homes throughout the country and strategically placed in magazine periodicals, offered potential customers a free glass of the year-old drink. According to Collard and Pustay (2001), between the years of 1894 and 1913, approximately 8.5 million copies of the coupon were redeemed at soda fountains nationwide, marking the first coupon campaign a success. By the early 20th century, coupons became a ubiquitous tool in promotional advertising. Couponing developed into a key strategy for attracting the attention of new customers, building brand awareness for businesses, and increasing sales and profits.

Berning (2014) mentioned coupons can encourage consumers to purchase items they would not given their budget and preferences. As such, coupons may motivate consumers to purchase more or less healthful products relative to their typical purchases and, knowingly or unknowingly, alter the nutritional content of their diet.

Coupons are tickets or documents that can be exchanged for a financial discount or rebate when purchasing a product. Coupons are issued by manufacturers of consumer packaged goods or by retailers, to be used in retail stores as a part of sales promotions. They are distributed through mail, coupon envelopes, magazines, newspapers, the internet (social media, email newsletter), directly from the retailer, and mobile devices such as cell phones. Since only price conscious consumers are likely to spend the time to claim the savings, coupons function as a form of price discrimination, enabling retailers to offer a lower price only to those consumers who would otherwise go elsewhere. In addition, coupons can also be targeted selectively to regional markets in which price competition is great.

Coupons are two major types: store coupons and manufacturer's coupons. Store coupons are coupon-based discounts offered for a particular item or group of items. The issuing store will accept its own "store coupons", but some stores will also accept store coupons that are issued by competitors. Coupons issued by the manufacturer of a product may be used at any coupon-accepting store that carries that product. Manufacturer's coupons have the advantage of being currency at a variety of retailers, not just at one store. Grocery coupons are incentives for people who want to save money, but manufacturer coupons are primarily intended to advertise products and lure new customers with financial incentives. They may also be used to increase the sales of newspapers or other publications. For example, people may purchase multiple copies of a newspaper or magazine in order to use the coupons contained within. Customers may get these coupons from various sources, including national newspapers and the Internet, with web sites offering free printable grocery coupons can be printed at home and use them at retail store. Some major grocery chains also produce digital coupons that may be loaded onto the retailer's loyalty card at home, or at a coupon dispensing machine located in store. Clipping coupons from newspapers has been the most popular way to obtain coupons, though Internet and Mobile Phone

coupons are gaining wide popularity. Some retailers and companies use verification methods such as unique barcodes, coupon ID numbers, holographic seals, and watermarked paper as protection from unauthorized copying or use. Internet coupons typically provide reduced cost or free shipping, a specific dollar or percentage discount, or some other offer to encourage consumers to purchase specific products or to purchase from specific retailers. Because paper coupons would be difficult to distribute and redeem, typically secret words or codes are distributed for consumers to type in at checkout. Marketers can use different codes for different channels or groups in order to differentiate response rates. A mobile coupon is an electronic ticket solicited and or delivered to a mobile phone that can be exchanged for financial discount or rebate when purchasing product or service. Coupons are usually issued by manufacturers of consumer packaged goods or retailers, to be used in retail stores as part of a sales promotion.

Nevo, Wolfram (2002) stated, that "couponing is a canonical example of price discrimination. Amonopolist may profitably charge discriminatory prices if he can separate consumers with different elasticities. If only more price-sensitive customers bother to clip, save, and use coupons, manufacturers can use coupons to sort customers into groups with distinct price elasticities."

5. Coupons as effective and innovative sale promotion tool

Coupons are a great way to attract get and existing customers coming to your business. Here are 12 tips to use coupons to advertise your business. Coupons have proven themselves to be highly effective and innovative sales tools for every conceivable size and type of business. Coupons "pull in the business" they have gained remarkable acceptance and popularity among astute marketing managers. A simple explanation for their acceptance by advertisers is their overwhelming acceptance and use by the consuming public. In fact, Advertising Age (the Bible of the advertising industry) reports that 87% of all shoppers use coupons. It's very easy to see why coupon advertising is sweeping the country. Regular use of good couponing strategy will provide a steady stream of new customers and high quality sales leads.

Coupons are a very popular sales promotional technique for both new and established products" (Swanson, Everett (2007)). For example, coupons help consumers with high uncertainty avoidance take a risk and possibly purchase a new product because the consumer will feel like the risk is diluted a bit with the saving he will gain by using the coupon.

A coupon allows customers to purchase goods or services at a reduced price. Manufacturer, retailer or store and deal-of-the-day coupons or discounts are issued as part of a sales promotion. Retailers or stores that accept a manufacturer coupon are reimbursed for the value of the coupon. Because the total consideration received for the product is the original retail price, charge sales tax on the full retail price before applying the coupon amount. Retailer or store coupons redeemable at their retail locations reduce the price of the item and are not reimbursed. Charge sales tax after applying the coupon or discount.
Coupons have proven themselves to be highly effective sales tools for every conceivable size and type of business.There are reasons:
A. Coupons have the effect of expanding or increasing your market area
B. Coupons will entice new customers that have been shopping at your competitor. It's a proven fact that consumers will break routine shopping patterns to take advantage of a good coupon offer.
C. Coupons attract new residents when they are actively in the market for products and services.
D. Coupons will re-activate old customers. Those customers that have been lured away by your competitor will start buying from you again when you give them a good reason to do so.
E. Coupon advertising provides the opportunity for additional profits through sale of related items. (Business owners often forget this.) When you offer a special "deal" on a coupon to invite a customer to do business with you, you have to remember that this same customer will probably end up buying additional items that carry a full profit margin.In addition, you also are being given the opportunity to "sell-up" to a more profitable product or service. You would not have had this opportunity had it not been for the coupon getting the customer through the door in the first place.
F. Coupons build store traffic which results in additional impulse purchases.

G. Coupons are measurable and accountable. Don't overlook that couponing is the most measurable and accountable form of promotion. It's simply a matter of counting the number of coupons redeemed to judge the effectiveness of the offer. Wise use of this consumer feedback will guide you in creating future offers that improve your results.

Coupons should motivate the consumer to not only purchase the product but to take notice of the brand. A well-designed coupon offer focusing on one particular product or service can generate a short-term boost in traffic to most retailers. While only a small portion of coupons may actually be redeemed, establishing brand awareness is one of the long-lasting effects of a coupon promotion. Understand that the media delivering the coupon has very little to do with the response. Publications simply deliver your offer to a specific audience. It's up to you to determine what offer produces the best response from that audience. You do this through methodically testing various offers. Savvy use of this "coupon testing" technique will give you the specific knowledge you require to greatly improve all of your advertising response, your sales, and your profits.

Williams, O., Babatunde, A., Jeleel, S. (2012) stated, that sales promotion becomes an integral part of the marketing strategy for reaching the target market and it is the responsibility of marketing managers to combine elements of promotional strategies, which is promotional mix into coordinated plans. Sales promotion efforts are directed at final consumers and designed to motivate, persuade, and remind them of the goods and receives that are offered.

The first of the four main coupon effects is directly linked to the coupon's face value. Because they offer buyers price discounts, demand theory suggests discount coupons should increase volume. Studies (Bawa and Shoemaker 1987; Neslin 1990) found significant volume "bumps" associated with coupon events. Other research found that the coupon face values were positively related to redemption intentions by shoppers who were not regular brand buyers (Shoemaker and Tibrewala 1985), to redemption rates, and to the incremental volume generated by the promotion (Bawa and Shoemaker 1989). Coupons may also encourage consumers to buy extra products (i.e., build inventories) or buy earlier than normal (Neslin, Henderson, and Quelch 1985). The price discount effect does not account for all the volume gains from price promotions.

Supermarkets carry thousands of items and hundreds of product categories. Consumers cannot keep all purchase options top-of-mind during each shopping trip. Many categories are not considered for purchase in a typical shopping trip. Eye movement tests suggest that about one-third of the packages on the shelf are completely ignored by shoppers (Young 1987). Coupons may impact the purchase planning process. One way is by influencing what is written on shopping lists. Coupons may work with other in-store factors to influence choices, further enhancing their sales impact. For example, when shoppers note a store display, having a coupon filed for the same product may move them over the purchase threshold when neither the display nor the coupon could do it alone. The interaction between the two, higher store visibility and consumer recall of an available coupon, could generate extra sales. The price discount effect assumes that redeemers respond to face values in the same way they respond to list price changes. Some households may react differently to coupons due to redemption habits or to non-monetary benefits that coupon transactions provide.

Coupons are utilized as a marketing and advertising strategy by manufacturers and sellers. Coupons help consumers save money, hence lessening their burden of shopping. Coupons are found in a range of different products such as food, health, toiletries, groceries, clothing, events and much more.

1. Coupons are absolutely free: Coupons are offered to consumers by merchants at a no cost. This means, as a consumer you get discounts without having to pay for them. All you have got to do as a consumer is get on online shopping websites as they provide visitors with free coupons and get yourself one.

2. Huge discounts: This is the main essence of using coupons. Once you present your coupon to the retailer, the price of the product or service is slashed in regards to the coupon you have presented.

3. Convenience: Coupons provides convenience to shop wherever you feel best fits you. This is because, Coupons can take quite long periods of time before expiring, and allowing consumers to find the best deals in online stores. Also you take your time in price and **product comparison** and acquire them when you get money.

4. Accessibility of coupons: All one has got to do is get to the internet and enter a promo code or coupon and hundreds of sites offering them comes up. One may also prefer signing up of mailing lists from your favorite online shopping websites, and you will be getting updates on promo codes and coupons as they become available right in your mail.

5. Shopping more for less with coupons: When shopping using coupons, you spend less on items that you really need. This leads to more shopping as you have some extra cash left for an extra shopping due to discounts brought about by coupons.

6. Diversifying brands using coupons: Sometimes one may prefer purchasing different brands to simply utilize a coupon. This gives you space to know what exact product you should settle for without having to strain so much and losing huge amounts of money.

7. Benefit of shopping on high-end shopping websites: Everyone wishes to shop on this shopping websites. However, money maybe the main constraint especially if you do not have it. When using coupons, the price range for a particular product declines, giving everyone a chance to shop on expensive shopping websites. Also those used to shopping on these high-end shopping websites, get a chance as well to save a dollar using coupons.

8. Win-win situation using coupons: With this I mean, both the merchant and the consumer benefit from use of coupons. This happens when a consumer shops regularly from a certain merchant and he/she gets offered special deals such as coupon codes to make you always shop from that particular merchant. Retailers in turn benefit from consumers once you become a repeat customer, it becomes a smart business.

Coupons are everyone's way of saving money when shopping, and as long as you want online shopping coupons, you know how to get it now.

Conclusions

Any document which can be presented to the retailer to gain some kind of financial benefit in the form of discount on any product is called a coupon. Customers can get the coupons redeemed at the specific retail outlets to avail relevant discounts and rebates in shopping. Coupons play an important role in attracting the customers into the store.Coupons help in furthering the brand image of the retail store without huge investments. It makes the brand popular among the end-users. Individuals talk more about the brand, thus making it a hit amongst the masses. A Coupon is one of the most cost effective ways of promoting the brand with little investment. Coupons make the brand popular as more and more customers visit the store to redeem their coupons. Example - As a part of their marketing strategy, on every purchase of Čili pizza, the company offers discount coupons to the buyers. These discount coupons can be availed next time the customer places his order. In such a situation, it is more likely that he would visit a Čili Outlet again to redeem his coupons and avail the discounts on the pizza. He would generally not prefer any other outlet as here in Čili he can get pizza at a lesser price as compared to others. Coupons go a long way in influencing the buying behaviour of the customers. Coupons also bring in new customers to the store. The individuals, who do not even know about a particular brand, visit the store to use their coupons and also check out other options as well. Coupons also benefit the customers as they can now purchase their desired merchandise at a lower cost. Coupons increase the store traffic and also result in Impulse Buying.

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