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Research paper

PROSPECTS AND CHALLENGES OF ENTREPRENEURSHIP DEVELOPMENT IN THE KURDISTAN REGION OF IRAQ: AN OVERVIEW

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ABSTRACT

Entrepreneurship as a driver of innovation and economic growth plays a key role in economic development and the appearance of knowledge and innovation-based economies. The most important effects of entrepreneurship development are increasing innovation, upgrading technology, increasing employment, producing technical knowledge, and generating income distribution at the community level, which can lead to increased national wealth and economic growth. At the moment, global developments are made entrepreneurship so important, and organizations need more innovation and entrepreneurship than ever before to adapt to new circumstances. In fact, in relation to entrepreneurship as the most important factor in economic development, organizations can gain more market share. The objectives of this study are to examine and overview the prospects and challenges of entrepreneurship in Iraq's Kurdistan region. In this regard, it can be said that with the human resources available and the valuable experiences available in the field of entrepreneurship around the world, it is necessary to plan for entrepreneurship development in the Kurdish Region of Iraq (KRI). It is revealed in this study Iraqi Kurdistan is determined can be one of the top entrepreneurial centers in the region with the scientific ability of specialists, and the potential of human resources, flexible structure and efficient technology. This paper recommended some strategies to reform and removing barriers to entrepreneurship development in the Kurdistan Region of Iraq by using factors such as entrepreneurship development and appropriate culture building, job training, setting up small business development centers, sponsoring entrepreneurs, establishing the legal framework for entrepreneurial activities, and providing spiritual support to entrepreneurs can lead to social, economic and industrial development and the declines of unemployment.

KEYWORDS: Entrepreneurship, Development, Prospects, Challenges.

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1 INTRODUCTION

Entrepreneurship is seen as an engine of economic and industrial development and a driver of private investment and one of the key drivers of countries' sustainable development (Cassim et al., 2014). Nowadays, in an evolving world, where science or technology is influenced by the wills or desires, success is achieved for societies that have skilled, creative and self-confident workforce for the reason

that, in the creative world, innovators are the source of great developments such as industry, education, and services. Based on the global growth and development process, it can be found that with the growth and development of advanced technologies, the role of entrepreneurs has ever more increased (Jafari-Moghadam et al., 2017). On the other hand, rapid technological changes in recent years have made countries more aware of the importance of innovation and entrepreneurship. In such societies, the impact of entrepreneurship and innovation has been vast, ranging from changes in social values to accelerate economic growth, including employment creation, technology development, recognition and expansion of new markets, organization and effective utilization of resources involves encouraging investment and increasing wealth in society (Dovbiy et al., 2017).

Since the beginning of the 1980s, governments have changed their policy direction to encourage and facilitate entrepreneurship, relying on their government management. In fact, this shift can be seen as a reaction to the evolving economic and social environment of countries facing technological advances, the growth of global competition, the emergence of a knowledge-based economy, economic and industrial restructuring, high levels of value acceptance. Democracy and private sector development have done. Governments have recognized the solution to managing these accelerating changes in entrepreneurship and have taken various steps to promote entrepreneurship (Nkechi et al., 2012). Researchers have made many definitions of entrepreneurship, for example, Mathew (2010), defines entrepreneurship as the risk and responsibility of designing and implementing a business strategy or starting a business. He also uses entrepreneurship as the disruptive force of the economy and calls it creative destruction (Mathew, 2010). In addition, the concept of entrepreneurship can also be interpreted as value creation. In this sense, a person who is empowered to perceive and find vacancies and opportunities and to create value by cultivating his/her idea and transforming it into a new product or service in society is called an entrepreneur (Niyazi, 2008). In other words, entrepreneurs are those who, along with risk-taking, seize opportunities and seek new ways to profit by relying on their ideas and experiences (Rabiei and Nazarian, 2013). In addition, the entrepreneur is someone who, alone or in partnership, initiates or adopts something with creativity and innovation, and by accepting the financial, social, moral and psychological risks, creatively creates new products to market and overcome competitors (Montoro-Sánchez et al., 2011).

2 ENTREPRENEURIAL BACKGROUNDS AND THEORIES

Entrepreneurship first came up in economic theories, and economists took a different view of it, and thoroughly outlined entrepreneurial theory. Entrepreneurship is a transnational and socio-economic phenomenon (Samitowska, 2011). Until Joseph Schumpeter introduced entrepreneurship as the engine of economic development. Schumpeter's theories about the pivotal role of entrepreneurship in economics due to neoclassical economic thinking and mass production were ignored until the early 1980s and went to the stage of eliminating economic theories (Drucker, 2012; Muro et al., 2013). Entrepreneurial literature covers various disciplines, most notably: economics, psychology, anthropology, and sociology. In the first place, by examining the economic theories of entrepreneurship, it can be seen that in economic thought, there are no theories and definitions that are accepted by all experts. There are generally two important streams of entrepreneurship theory: 1. Psychological; 2. Sociological (Muro et al., 2013).

Psychological researchers are seeking to identify the psychological characteristics of entrepreneurs. These characteristics are related to entrepreneurial performance. These psychological theories apply a broad view of psychology. Sociological theories are also looking at how the environment affects entrepreneurship (Muro et al., 2013). Some of these environmental factors affecting entrepreneurship in the sociological domain include: 1. The importance of organizations' investment rates; 2. Political and government policy factors; 3. Culture; 4. Location; 5. Professionalization of entrepreneurship. Joseph Schumpeter states that entrepreneurs are driving the capitalist system's societies and markets. And markets are not related to supply and demand mechanisms, but entrepreneurs are responsible for

new product design, technological horizons, and lower production costs. Schumpeter uses entrepreneurship in a broad sense, including corporate executives and even public and nonprofit agencies. According to Peter Drucker, who defines entrepreneurs as opportunity seekers, everyone can be an entrepreneur. Drucker believes that we should talk about the actions and behaviors of entrepreneurs, not about the psychology of entrepreneurs (Drucker, 2012).

As the first research in the field of entrepreneurial psychological characteristics, David McClelland studied the motivation for success in 1987, and risk orientation is a behavioral attribute presented by Knight in 1921. Parston defines the entrepreneurial process as a managerial behavior that constantly seizes opportunities to achieve the results of one's capacity. The results of the surveys have provided new insight into the field of entrepreneurship, and to most researchers, entrepreneurship is the engine of economic and social change that can lead to employment, human resource efficiency, and national resurgence (Muro et al., 2013: Drucker, 2012).

3 THE IMPORTANCE OF ENTREPRENEURSHIP

Studying entrepreneurship is important for several reasons. Entrepreneurial capabilities first lead to innovation and technical change capabilities, and hence to economic growth. Second, as Austrian economists have argued, entrepreneurship is a process by which supply and demand equals. Third, entrepreneurship is an important process by which new knowledge becomes a commodity and service. Fourth, entrepreneurship has become an important profession and we need to understand its role in the development of human and intelligent capital. Nowadays entrepreneurship is an essential key in the growth and development of countries because it provides numerous job opportunities and offers many products and services (Liñán and Chen, 2009; Wibowo and Saptono, 2018).

The role of entrepreneurship in economic development is not limited to incremental per capita income, but involves the establishment and initiation of structural changes in economic and social activity. This evolution is accompanied by growth and increased returns, which will allow for greater sharing among different participants (Adenuga and Ayodele, 2013). In the global arena, creative and innovative individuals as entrepreneurs have been the source of great developments in the industrial, manufacturing and service sectors and are also referred to as national champions. The importance of entrepreneurship enough that in India over the past twenty years, only five hundred entrepreneurial institutes have been set up and even a number of large companies have turned to entrepreneurs to solve their problems. There is also evidence that entrepreneurship is the cause of the development of industrialized countries such as the US, Japan and Germany. Entrepreneurship has now emerged as a profession and, like other professions, must be developed and nurtured through specific educational and academic programs (Abtahi, et al., 2014).

Entrepreneurship is an important and endless resource of all human societies that derives from human creativity and is both inexpensive and inexhaustible on the one hand (Popescu and Simion, 2012). Entrepreneurship as a symbol of business endeavors and entrepreneurs are pioneers of business success in society. Their ability to seize opportunities, their ability to innovate, and their capacity for success are considered as indicators of new entrepreneurship. Entrepreneurs play an important role in economic growth in terms of leadership, management, innovation, efficiency, job creation, competitiveness, productivity, and startups. Entrepreneurial revolution is needed in societies. In the present century, this revolution is far more important than the industrial revolution to provide space for mass entrepreneurial discussion. The trend towards entrepreneurship has emerged more and more in the marketplace since the early 1980s, leading to entrepreneurial activity within companies and has emerged as a new theoretical insight (Forsström et al., 2015).

Along with bureaucratic intrusions into corporate culture to create an organizational commitment, corporate governance has increasingly attracted corporate executives in the 1960s and 1980s, so they

can also invent and market their new products and services. With the onset of the 1980s and the sudden advances in the industry in the field of global competition, the importance of entrepreneurial processes in large corporations has been emphasized more than ever before, and researchers have focused on how entrepreneurship can be embedded in corporate governance structures (Abdullah et al., 2014).

Many companies today realize the need for corporate entrepreneurship, and in fact this shift in strategy is in response to the three needs imposed on corporations (Popescu and Simion, 2012). These three requirements include, first, the rapid growth of new competitors, the second, the distrust of traditional management practices in companies, and the third, the departure of the best workforce from companies and their pursuit of individual and independent entrepreneurship. Regarding the first need, this factor has accelerated in recent years and has challenged all companies and has even challenged many industries with advanced technologies. The pace of innovation and the introduction of new products have grown so rapidly that with these changes, initiatives and improvements have become commonplace in the markets. As a result, companies either have to innovate or they are doomed. On the second issue, that is, the distrust of traditional management practices in companies, it can be said that traditional management practices can no longer respond to rapid changes in the environment. Their incompatibility with decision-making conditions in such new environments has created a kind of mistrust of traditional management styles. The third issue and challenge are leaving the most qualified individuals in the companies to pursue independent entrepreneurship (Popescu and Simion, 2012).

The main reasons for encouraging people to leave their companies are the results of independent entrepreneurship such as economic and social well-being, reputation and independence in decision making. These factors will cause the young and experienced employees, more than in the past to encourage entrepreneurship. Because entrepreneurship will create a complex mental map that is associated with different mental maps for the future (Somers et al., 2014).

4 ENTREPRENEURSHIP POLICY

The Kurdistan Regional Government (KRG) needs to implement some policies in order to perform entrepreneurial activities. Policy is a multifaceted phenomenon and it is the decisions made by governments that define a goal and determine the means to achieve it, and decisions and policies are made by senior executives. Policies are tools to determine the general framework of managers' thinking to make better decisions. That can guide governments' thinking in purposeful decision making and thus ensure that decisions are made correctly (Foss et al., 2019).

In the last few decades, entrepreneurship policy (as part of macro policy) has also been rapidly evolving in various countries, first appearing in the United States (Hart, 2003) and then European policymakers quickly focused on it (Gilbert et al., 2004). Many policy makers and experts see entrepreneurship as the most important determinant of countries' long-term competitiveness. However, entrepreneurship is not well defined in the concept of research and policy. Focusing on entrepreneurship is sometimes considered synonymous with focusing on small and medium-sized enterprises (SMEs) and sometimes in other contexts, the concept of entrepreneurship is limited to young startups (Hölzl, 2010). Basically, entrepreneurship policy is related to the creation of an environment and support system that fosters the emergence of new entrepreneurs at the start-up stage and early stages of the growth of new companies. The Entrepreneurship Policy provides support services while encouraging people to become entrepreneurs. Governments also need to eliminate barriers to entry into the business world, provide opportunities to start a new business and stimulate entrepreneurial participation and investment (Tsai and Kuo, 2011).

Around the world, entrepreneurship is being increasingly supported by governments and their policies. For example, researchers claim that many governments have openly embraced the entrepreneurial

economic theory. Entrepreneurship policy is nowadays implemented at the local, regional, national, and international levels (Hoppe, 2016). The EU pays particular attention to entrepreneurship policy and the 2020 Work Plan clearly demonstrates that entrepreneurship is an important growth factor in the future (Bager et al., 2015). Entrepreneurial human capital, such as industry experience and public education, enables entrepreneurs to discover and exploit entrepreneurial opportunities to succeed by increasing their capabilities (Zainol et al., 2018). Matlay and Hanon (2006) specifically argued that entrepreneurship development is currently the most important policy of governments. Stevenson and Lundström (2001) have considered entrepreneurship-related government policies, including the development of small and medium-sized enterprises, focusing on specific groups, the establishment of a new company, and a holistic policy.

In his study, So (1992) identified four categories of factors influencing policy implementation:
1. Policy factors (including type of policy, resources, policy incentives, degree of complexity, consistency and legitimacy, and clarity of policy).
2. Intervening factors (including communication and coordination, timing, implementation strategies, staff training, acceptance process, clear and continuous correlation and elimination of fear and uncertainty).
3. Environmental factors (including political support and socioeconomic, organizational climate context, organizational structure context and others support).
4. Executing factors (staff perception, staff competence and willingness).
In addition to summarizing the views of some experts, Winter (2012) has proposed a model, including: variables related to the policy formulation process, variables related to organizational and interagency implementation, variables related to bureaucratic behavior, variables related to response target group and community changes.

5 PROSPECTS OF ENTREPRENEURSHIP DEVELOPMENT IN THE KURDISTAN REGION OF IRAQ

The Kurdistan Region of Iraq (KRI) is determined to become one of the region's premier entrepreneurship centers in Iraq with the scientific expertise and potential of human resources, efficient technology, flexible structure, providing entrepreneurship education and promotion, consulting on technology development and the knowledge economy.

The economy of both the Kurdistan Region Government - KRG and the Government of Iraq - GOI are excessively driven by the public sector. 40% of Iraq's labor force at this time employed by the public sector, which is clearly higher than in more diversified economies in the region, such as Turkey 12%, Iran 17% and Jordan 31% (Bartnick, 2017). Kurdistan has a population of about five to six million, of which only two million are in the working-age, and 1.4 million of them, which is about 70% of these working population is employed in the public sector (DeWeaver, 2015; Hussein, 2016). Public-sector employment can act as a factor against economic uncertainty and the unstable security environment and add value to places such as Kurdistan region and Iraq, which have been plagued by prolonged instability. However, the problems of over-dependence in the public sector employment have been exposed by the economic recession that has absorbed the region since 2014.

The Kurdistan Region of Iraq (KRI) has faced inestimable challenges as a result of its high unemployment rate at the beginning of 2013, while unemployment has increased sharply in this year, with 20% to 25% losing their jobs mostly in the private sector (Tasie, 2017). Furthermore, many factors have negatively affected economic growth, reducing private sector development. The first factor was fallen in global oil prices since 2014, another factor continuing budget disputes between Baghdad and Erbil, when the central government (Baghdad) cutting off the budget of KRG from the national budget in 2014 (DeWeaver, 2015; Sümer and Joseph, 2019). In addition, the war against the Islamic State in

Iraq and al-Sham (ISIS), corruption, and poor governance, as well as the social reproduction of the risk-taking mindset that promotes public sector employment (Sümer and Joseph, 2019).

The private sector should be reformed by both KRG and GOI, especially in focusing on entrepreneurship. Features in each region refer to social and physical foundations, labor force requirement and community organisms' effectiveness (Mihaela, 2016). Entrepreneurs, investors, and even businessmen are the particular greatest engine of the growth of the economy in the world. Entrepreneurship has a significant impact on sustainable economic development by creating employment, increasing GDP, reducing poverty and welfare of the whole society (Burke, 2011; Djukić, and Lepojević, 2015). At the same time, economic growth has had a major impact on entrepreneurial development (Sabella et al., 2014; Casares and Khan, 2016). In addition, the correlation between entrepreneurship and the growth of the economy might not be different in countries with different levels of development (Van Stel et al., 2005) as it can be seen in the Kurdistan region of Iraq.

The increasing share of SMEs (small and medium-sized enterprises) in some developing countries has led to changing economists' perceptions of economic growth drivers. SMEs create more than half of the jobs available worldwide and make the job opportunity more than twice the rate of established companies (Weinberger, 2016), these enterprises are driving innovation by generating new ideas, new products, and creating new businesses. The special importance of SMEs lies in the fact that they are very dynamic, fast-learning and prone to rapid change (Cuckovic and Bartlett, 2007) which enhances their competitiveness as well as the overall competitiveness of the economy (Ivanović-Djukić et al, 2018). Based on this idea, in 2017 the Iraq's Council of Ministers named the promotion of SMEs as one of the three pillars of its private sector development strategy by 2030. KRG and GOI have the opportunity to harness entrepreneurial power, and foster dramatic economic growth. But to take full advantage of the region's economic potential, there are a number of challenges that must first be addressed (Bartnick, 2017).

The basis of any entrepreneurial ecosystem is this mindset: Do aspiring entrepreneurs have the insight, appetite for risk, and resistance to pursuing their jobs? If this is the case, then there must be a set of structural situations in which entrepreneurs can operate (Matsunaga, 2019). The government must improve entrepreneurial infrastructures such as internet access and the banking system and create a lightweight regulatory system in which it would be easy to start entrepreneurship (Bartnick, 2017). They must also work with the private sector to ensure that successful entrepreneurs have access to the capital that they need to scale their business. Only after all these conditions have been met will the economy be in a position to take advantage of the valuable market opportunities that entrepreneurship can offer. The KRG and GOI are disproportionately dependent on public sector employment, which prevents the growth of the private sector needed for the KRG to come out from its recession.

Structural deficiencies in the entrepreneurship KRG and GOI ecosystems include insignificant burdens and lengthy procedures for creating new jobs, businesses and entrepreneurs, limited access to capital through banks and traditional investors, the lack of intellectual property protection, and unclear regulations on key growth areas such as e-business. Laws and regulations are not only the tools that put entrepreneurs back. They present the structure of business activities and adjust the parameters in which businesses and customers interact together. When this framework is completely lost, it creates an important uncertainty that impedes economic growth (Bartnick, 2017). The KRG wants to implement and enact laws that make the private sector more attractive, so the people of Kurdistan can take steps to develop a safe economy. It is time for the Kurdish population to become creative and entrepreneurial by starting small and medium-sized enterprises (SMEs) (Hussein, 2016), and agricultural and information technology industries would be ideal sectors for investment (Hilmi, 2018), and these could be achieved by emphasizing on; Creativity, Pragmatic ideation, Added value, Interdisciplinary work, Perseverance, Participatory and Competitiveness.

6 CHALLENGES OF ENTREPRENEURSHIP DEVELOPMENT

Research on entrepreneurship policy also reveals a variety of factors such as development of training programs and consulting, infrastructure and financial support, research and development (Henrekson and Stenkula, 2010; Redford, 2012), entrepreneurship culture, intellectual property rights (Acs and Szerb, 2007; Audretsch, et al., 2007), creating entrepreneurial economics, empowering entrepreneurs and knowledge commercialization, access to external technologies and tax support and increasing entrepreneurial activities (Acs et al., 2014) providing economic, political, cultural and structural incentives, improving the environment, and accessing resources (Lundström and Stevenson, 2006).

Furthermore, formal organizational factors, namely government, finance, business and service infrastructure research and development policies. Informal organizational factors, such as social and cultural norms, skills development, business opportunities, social image (Alvarez et al., 2011). Entrepreneurs and entrepreneurship development in society, influence entrepreneurial practices (Jafari-Moghadam et al., 2017). Research by Kim et al, (2011) examined the effects of financial policy, labor force, and taxation on entrepreneurial activities. Lucky (2013) also explores the inefficiency of government policy on entrepreneurship in a study of the inefficiency of government policy in Nigeria, while noting the lack of proper implementation, and implementation of entrepreneurship policies as the main cause of instability in entrepreneurship policies.

In his research, Dennis (2011) has identified the institutions, cultures, competitiveness, and defined the benefits of competition, barriers and supports, policy goals, and direct or indirect actions in entrepreneurship development. Bennett (2014) In his research, focused on appropriate policies and policy tools for small businesses and young entrepreneurs in marketing, business creation, and finance. In a study, Bager et al., (2015) explored the role of the key interests of key decision-makers in shaping entrepreneurship policy at the national level. Mirzanti et al., (2015) also indicated that there are 12 government-run entrepreneurship programs aimed at increasing the number of entrepreneurs or start-up. At the micro level, policies focus on business skills, identifying opportunities and psychological characteristics of individuals, including motivation. At the intermediate level, entrepreneurship is defined as an organization whose added value is through entrepreneurship process and business incentives and responsibilities; Acceptability, and lastly, the macro level include the effects of entrepreneurship on employment creation, business start-up, entrepreneurship culture, entrepreneurship infrastructure and education.

The findings of Agu and Ayogu (2015) research indicate that multiple taxes, lack of technology awareness and unfair competition are the challenges of entrepreneurship development in Nigeria. Technology improves entrepreneurship in Nigeria by improving customer satisfaction and reducing transaction time. In his study, Dhaliwal (2016) specifies that entrepreneurship brings new business ideas to life and creates jobs that facilitate personal growth, and with their innovative ideas, entrepreneurs can also solve social problems. In addition, in the study of Mehari and Belay (2017) it was found that factors such as access to communication media, education system reform, support for village-level associations have a positive impact on entrepreneurship development. The results also showed that age has a significant effect on one's desire for entrepreneurship. The literature suggests that entrepreneurial potential decreases with age. Moreover, the study of Ahmed (2018) concludes that, entrepreneurship and startups play an important role in promoting the state economy, and it also discusses the role of government in providing a favorable environment for enterprises' development.

6. 1 Challenges of Entrepreneurship Development in the Kurdistan Region of Iraq:

According to the results of the research and the current situation in the Kurdistan region and Iraq, entrepreneurship development has the potential to play an active role in global markets, competitiveness, sustainable employment, development of justice, poverty reduction and community, government and public sector solutions. Entrepreneurial development in the Kurdistan region is also

the most viable strategy to get out of the economic and social impasse that needs to be identified and overcome. Capacity building for entrepreneurship development requires entrepreneurial training and skills with a market-based approach based on the needs of society at all levels of education.

However, entrepreneurial development requires identifying and removing barriers and creating appropriate contexts for the development of productive activities and services. There is no doubt that a strong government presence in the Kurdistan region's economy and the obstacles to effective private competition and entrepreneurship make entrepreneurship development possible, but also impossible. It can be argued that entrepreneurs notice many challenges to their business before they can compete with the private sector for their activities. These challenges include three dimensions of anti-motivation, legal barriers, and the business environment:

1. Anti-motivational factors of entrepreneurship

- High financial risk (fear of losing personal capital)
- The main anti-motivation factor for entrepreneurship in KRG is that the profits from trade, manufacturing, and entrepreneurship activities are negligible compared to other economic activities such as imports of products.
- Lack of access to finance for investment, the inability to provide sufficient funds to start a business, and due to the financial crisis in recent years, very little capital is available to new entrepreneurs.
- The large volume of overseas brand advertising in all areas of the media and mass media makes the public's perception of Iraq's domestic product declined, so the bank's entrepreneurial status is motivated to start or continue its business. Creatively lose entrepreneurship and give up on the road.
- Administrative barriers and corruption in the public administration sector.
- Lack of skills (lack of proper and sufficient skills and experience in running a new business).

2. Legal Barriers of entrepreneurship

- Banking rules and regulations, lack of banking infrastructure in the Kurdistan region and cultural distrust of the banking system.
- Labor laws, lack of support of entrepreneurship.
- Companies registration laws, such as duration of registration, the expenditure of company registration, the complexity of related rules.
- Bankruptcy laws and regulations, the negative attitude of people towards failure in business.
- Trade and business laws, and regulations related to import and export.
- Tax regulations, the rate of tax on companies' income and complexity laws related to tax collection.
- Copyright rules and regulations, the lack of Intellectual Property (IP) rights and patent laws.
- Customs rules, regulations and tariffs.

3. Business environment challenges

Investigating the challenges and problems of entrepreneurship in the Kurdistan region of Iraq will not be complete without examining its business environment. According to top entrepreneurs, the failures of the business environment for new and growing companies are as follows:

- Lack of commercial, specialized infrastructure and the skills needed for new and growing companies.
- The lack of an entrepreneurial mindset and appropriate physical infrastructure for new and growing companies.
- Lack of support for social entrepreneurship and cultural norms, and lack of proper physical infrastructure for new and growing companies.

- Lack of adequate financial support by providing access to capital and loans to new and growing companies.
- The lack or incompetence of government programs and policies to help new and growing companies.
- The Lack of emphasis on higher education programs and research on entrepreneurship development.
- Lack of intensive training programs focused on entrepreneurship and startup development.
- Improper transfer of government research and development results to new and growing companies.
- Lack of free-market space for new and growing companies.

7 STRATEGIES OF REFORM AND REMOVING BARRIERS TO ENTREPRENEURSHIP DEVELOPMENT IN THE KURDISTAN REGION OF IRAQ

According to the results obtained for removing the barriers to entrepreneurship development, the following suggestions are offered:

1. Review banking rules and regulations, such as reducing the requirements and legal procedures for providing banking facilities with appropriate bank interest rates for new and emerging enterprises.
2. Establishment and development of private banks specifically for the development of entrepreneurship and SMEs.
3. Modifying the labor law with the approach of entrepreneurship and sustainability of firms "neither work-oriented nor worker-oriented".
4. Modifying business, export, and import regulations by an entrepreneurial approach, and paving the way for e-commerce growth and development.
5. Reducing inappropriate administrative bureaucracy in public organizations, including municipalities, company registrations, industries and resources, customs and environmental management.
6. Establishing and developing office automation systems in government agencies and institutions to reduce costs and facilitate and eliminate unnecessary administrative procedures such as workflow procedures between departments, printing, copying, and other similar matters.
7. Developing Entrepreneurship education in public and private schools and universities, and opening advanced small business growth centers.
8. Development of science and technology of industrial settlements and business development centers and similar actions with an entrepreneurial approach.
9. Holding entrepreneurship and market innovation conferences in order to support innovation and promote ideas through professional entrepreneurs and investors.
10. Establishing an intellectual and financial support fund for entrepreneurs and business startups, and encourage their activities by offering access to financial help, loans, and capital.
11. Preventing excessive imports of foreign goods similar to domestic production to support domestic products and markets.
12. Establishing regular entrepreneurship consultation and business development centers with the private sector to better understand the limitations they face and how to deal with them, as well as encourage open dialogue between entrepreneurs and investors.

8 DISCUSSION AND CONCLUSION

This article has attempted to extract and investigate various factors and challenges affecting entrepreneurship development from research conducted in this field. The results show that experts from different perspectives have looked at barriers to entrepreneurship development. In general, the results of the research on the obstacles and challenges of entrepreneurship development can be summarized in an overview:

Internal Barriers: These include motivational barriers. Improper efforts of the government and unspecified incentives for entrepreneurship development seem the first factor to have delayed the entrepreneurial development process in the Kurdistan region. Lack of easy access to capital and long-term finance for investment, as well as lack of good skills needed for starting and managing the business, and the absence of adequate training facilities and leadership development capacity for entrepreneurship activities are the challenges that entrepreneurs and startups have faced in this region.

Environmental barriers: The second category is the external barriers. The need to rethink and even redefine new concepts at the macro-level of policy-making are seen as essential strategies for reforming, removing these barriers, and creating the appropriate infrastructure for the development of organizational entrepreneurship. On the other hand, traditional strategies at the level of government agencies and development training centers are not capable of encouraging individuals to undertake entrepreneurial activities, also the traditional view of such organizations and centers are that the customer-oriented tendencies of the organization are not given sufficient attention in service delivery. Other barriers include the lack of proper connectivity tools, lack of regulation, lack of safety, and functional area barriers.

Outcome Barriers: The third category of entrepreneurship barriers is output barriers. Organizations need to change how they interact with other organizations and organs of society in order to confront the opportunities and threats that exist in today's world or are doomed. Like the other two barriers, there are significant obstacles that can accelerate the pace and speed of entrepreneurship in society. Some of the most important of these barriers are cultural-social barriers, the traditional definition of success, the ability to continue operating despite being ineffective, the frequent change of management over short periods of time.

Entrepreneurs and small businesses are the biggest drivers of private sector growth and developments in emerging markets around the world. It can be argued that both motivates and regulation factors as reviewed in this research could be the main challenges and barriers to entrepreneurship development in the Kurdistan region of Iraq. Entrepreneurs in the Kurdistan Region of Iraq face many challenges and barriers. So far, the evidence suggests that entrepreneurs have a long way to go before they can effectively drive economic change. There are people in every country who have an act of entrepreneurial courage and spirit, but that alone is not enough. Many conditions must be provided for the development of entrepreneurship in the country.

To encourage a positive spirit of entrepreneurship among young people as mentioned above in strategies of reform and removing barriers to entrepreneurship development, universities and other higher education institutions in the Kurdistan region need to be taken into consideration to focus more on business and be more entrepreneurial. They should be encouraged to develop more relationships with local businesses and to engage in additional business education at the universities and business development centers. Kurdistan region government should encourage and support entrepreneurship activities by offering bank facilities such as providing capital and long term loans to new and emerging enterprises. The government can also improve business laws with the entrepreneurship approach and seek to reform targeted legislative in areas of future growth such as e-commerce. The government can improve the entrepreneurial ecosystem by providing a free-market space that emphasizes emerging and

growing companies. Along with that, the government by establishing private banks related to entrepreneurship can support small and medium-sized enterprises (SMEs).

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GREEN ENTREPRENEURSHIP: LITERATURE REVIEW AND AGENDA FOR FUTURE RESEARCH

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ABSTRACT

Advocacy for pro-environmental behaviour in the business arena is on the increase. Yet, many businesses have continued to indulge in "business-as-usual" practices, which are preoccupied with profit maximization objectives at the expense of all other social benefits. Such anti-environment practice has little or no regard for flora and fauna wellbeing. Hence, the main objective of this study is to review, explore and synthesize current views in the field in view of clarifying relevant concepts in green entrepreneurship context. Also, to identify behavioural and performance standards required of green entrepreneurship growth and development. To achieve the study objectives, we adopted integrative review of literature methodology. Concerning the findings, the paper identified new trends in green entrepreneurship and identified the need to clarify some relevant concepts, such as: industry life cycle, entrepreneurship knowledge sharing, institutional framework, entrepreneurship financing, green entrepreneurship decision-making process among others. We also identified the need to properly delineate the process leading to the practice of green entrepreneurship as a departure from the old entrepreneurship philosophy. Therefore, we recommend that further studies should endeavour to focus on identifying the step-by-step processes involved in the green entrepreneurship practice for the possibility of wider accessibility and ease of understanding of prospective green entrepreneurs in the interest of green entrepreneurship growth and development. Finally, we identified the dearth of literature with change management scholars' view and contributions to the emancipation of green entrepreneurship from the cocoon of traditional entrepreneurship management practice hence, we threw it open for future research undertaking.

KEYWORDS: Born green firm, green entrepreneurship, green economy, innovation, sustainability.

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1 INTRODUCTION

The role of entrepreneurship in the progress of societies has been well recognized (Schumpeter, 1934; Dean & McMullen, 2007). Paradoxically, the same entrepreneurship has been extensively indicted for negative impacts on the society from its business activities. Such unsustainable business practices have been described by researchers as "business-as-usual model" (Mrkajic, Murtinu & Scalera, 2019; Demirel, Cher Li, Rentocchini & Tamvada, 2019). Thus, various institutions such as the United Nations embarked on several educational and enlightenments programmes at different levels calculated to create awareness amongst people on ecological sustainability matters in relation to business management (Pachecho, Dean & Payne, 2010). These interventions aimed at expanding knowledge

scope on green entrepreneurial drives include the Stockholm Conference in 1972, Rio De Janeiro Earth Summit 1992, Montreal Convention, Kyoto Protocol and Framework Convention on Climate Change among others. For instance, Farinelli, Bottini, Akkoyunlu and Aerni (2013) emphasize entrepreneurs' ability to migrate from dirty traditional business model in which business organizations are over reliant on the economic profit at the expense of sustainable development which was the main thrust of green entrepreneurship. To this end, the Organisation for Economic Cooperation and Development (2011) advocates for policy mechanisms that would encourage green entrepreneurship in view of reconfiguring the global economic narrative towards environmental friendliness (OCED, 2011). Thus, being conscious of biodiversity among the players in the global economic landscape is sacrosanct. However, in the opinion of O'Neill and Gibbs (2016), old unsustainable business practices have hindered the attainment of global aspiration to achieving low carbon economy hence, aggravating the threatening of the planet (earth)'s integrity. In other words, inability of entrepreneurs to conduct their business within the purview of green entrepreneurship represents failure to recognize opportunities in greening. Therefore, Dean and McMullen (2007) observe that green entrepreneurs are taken advantage of market failure of old business practices by filling these need gaps in the emerging green markets. Furthermore, the need to identify prospects and challenges in the process of going green as entrepreneurs search for opportunities in this regard is equally of important (Esty & Winston, 2009). Thus, this led to the springing up of business ventures with green outlook. Hence, green ventures lay emphasis on efficiency, innovation, market acceptability, revenue growth, flexibility, effective risk and relationship management and other market benefits (Ambec & Lanoie 2008; Porter & Van der Linde 1995).

In addition to the above, due to the negative effects of unsustainable business practices of organizations', which usually manifest in form of environmental pollution, attendants destruction of the natural environment and other valuables, organizations or entrepreneurs should be aware of the consequences of their actions or inactions in this regard. Universally, sustainable development has been recognized as a significant issue that must be carefully considered in any strategic session or discourse, be it business organization, government or society (Kulkarni & Pammar, 2019). For instance, the World Commission on Environment and Development (Commission, 1987) defines sustainability as the development that meets the needs of the present generation, without compromising ability of the future generations to meet their own needs. In the same vein, Rahman, Nezakati, Ho and Ong (2016) describe sustainable development as a contemporary approach to development that seeks to accomplish the balance between the environment, social and economic goals. Thus, considering the importance of sustainability and many embedded benefits to the betterment of the generality of global citizenry, the growth as well as the development of this important field of study should be the priority for all stakeholders. Since conceptual and theoretical clarity is a precondition for advancement of science vis-à-vis particular field of study, there is a compelling need for clarifications of relevant concepts such as 'born green firms', 'green start-ups', 'eco-oriented start-ups', 'already established firms' to avoid confusion in their usage. However, eco-oriented start-ups' and already established firms' concepts, which means consciously created pro-environmental and later turned environmentally responsible firms, are used interchangeably in this paper. In that, 'already established green firm' represents conventional businesses which later realized the need for greening and adapted accordingly.

Furthermore, Hussain (2018) argues that environmental sustainability is attracting increase attention. Unfortunately, how entrepreneurs got involved in green entrepreneurship in which they are able to contribute immensely to socio-environmental development of a society remained yet unclear. Since both green entrepreneurship firms are known as pro-environmental or environmental friendly or responsible firms, the concern should be to establish or invest in businesses that satisfy specific societal needs without having to undermine entrepreneurs own moral responsibility to preserve nature. For green posterity, entrepreneurs are expected to leverage on the green force of creative destruction, being a formidable platform to build competitive advantage in the contemporary market. However, the researchers believe that very little is known about the characteristics of green entrepreneurship (old or new) with regard to the process involved in penetrating the market and recording innovative performance despite efforts of previous scholars (e.g Criscuolo & Menon, 2015; Farineli et al., 2013;

Esty & Winston, 2009). In addition, very few studies (e.g. Costantini & Mazzanti, 2012; Sunny & Shu, 2017; Hörisch, Kollat & Brieger, 2017) have highlighted unresolved issues in the green entrepreneurship field as well as investigating green entrepreneurship from the perspective of change management despite the fact that the role of change management in any change process is germane. Hence, this paper focuses on the clarification of terms concerning environmental sustainability from the green entrepreneurship viewpoint. More specifically, this study aims at highlight key factors in entrepreneurship sector and set new agenda for future research direction. More so, we observe that change management scholars are yet to show appreciable interest in the field of greening which accounted for paucity of literature with change management perspectives.

2 LITERATURE REVIEW

2.1.1 The Concept of Green Entrepreneurship

Despite the observed rapid growth in the general field of green study, green entrepreneurship, as a field of study is still at its infancy. For instance, Pachecho et al. (2010) observe that there are some cross-road conceptual issues from the related fields such as Business Economics, Entrepreneurship, Finance, and Accounting, which are yet unresolved. O'Neill and Gibbs (2016) posit that entrepreneurs do experience dilemma in determining what undertakings constitute green entrepreneurship. To alleviate this dilemma, researchers at various occasions tried to define or describe green entrepreneurship for ease of understanding. Green Project (2012) for instance, defines green entrepreneurship as activities that are consciously addressing environmental/social problems/needs through implementation of entrepreneurial ideas amidst high risks and expectation of net positive impact on environment and financial sustainability. The authors go further to describe a green entrepreneur as one who starts and runs an entrepreneurial venture that is designed to be green in process and products. More so, Sunny and Shu (2017) suggest that green entrepreneurship should be defined in terms of adopted technological line of production or firm's activities. Also, Dale (2018) describes green entrepreneurship as a story telling process through which an entrepreneur obtains supports from stakeholders to pursue his/her ambitions. Literature shows that due to the premature stage of green entrepreneurship, scholars have not been able to agree on a universally acceptable definition for it (Demirel et al., 2019). According to the Buck Consultants (2011), 60 percent of businesses today are measuring efficiency through green programmes out of which 78 percent of them achieve power efficiency, two-thirds indicate heating/cooling and paper savings while 60 percent are cutting costs on water consumptions. Hence, in the overall, about 69 percent of the respondents indicated that they are already exploring green in their different endeavours, which represent an increase over the previous year's figures. In support of this, Khan (2015) opines that the only strategic solution to the problem of sustainability is for entrepreneurs to establish their businesses and rely on "go green" for prosperity and long term survival.

Furthermore, the level at which some businesses resort to the use of "green-washing" to lure unsuspected public into their brand through marketing gimmicks further reemphasize the potency of green practice to growing consumers base for certain brands. For instance, researchers (e.g. Darnall & Edwards**,** 2006; Zhaojun, Jun, Yali & Ying 2017) have observed that true green enterprises are bound to enjoy high level of customer loyalty despite the growing interruption of green-washing. Thus, unscrupulous businesses pretending to be green or pro-environmental for undue market advantage can only have their way in the short-run. In other words, businesses firms that have come to the realization of the necessity of greening are now being strategically positioned for sustainable market opportunities compared to those that are pretending to integrate greening into their management processes just when they are not. Although, the challenge being faced by the young green entrepreneurs in this regard cannot be underestimated. These cchallenges, which range from the lack of adequate government supports to the difficulty in assessing funds and markets among others, need to be addressed should green entrepreneurship be widely embraced. However, the resolve to be environmentally oriented and

compassionate establishments gave green entrepreneurs the resilience to surmount these challenges. Hence this genuineness of purpose ended up given them good reputation of environmental friendly firms with products and services, which customers would gladly patronise. Apparently, it is in our own interest to rally round in support of the new born green firms which stand for sustainability in all ramifications. In other words, it behooves on every stakeholder to see that young green born firms survive to fulfill their purposes.

2.1.2 The Concept of Creative Green Entrepreneur

There has been an increasing advocacy for conducive environment for biodiversity, which led to the emergent of green field of study courtesy of creative intelligence. For instance, Demuth (2014) views green creative entrepreneurship as an entrepreneur's ability to obtain stakeholders' approval for his ideas, takes control of the value chains and gets rewarded for his ingenuity to solve environmental problems. The author further argues that entrepreneurs' ability to attract investors for their creative ideas defines the level of success attained through innovative efforts. Meanwhile, Zhaojun et al. (2017) argue that green entrepreneurs' tendency to explore different scenarios due to flexibility and adaptability rooted out of creativity often results in superior solution to business and societal challenges. Similarly, Yousuf, Awang and Iranmaneseh (2017) argue that green entrepreneurs are perceived as disruptive thinkers who are capable of salvaging the sociological landscape from environmental menaces. Thus, entrepreneurs' ability to begin at any level presents them with the advantages of green market opportunities towards sustainability. In addition, Malavisi (2018) posits that green entrepreneurs are those who are involved in modern green business practices through creative and innovative competencies. However, to mitigate global environmental challenges, Dale (2019) argue in favour of green creativities, which he describe from green entrepreneurship perspective as a revolutionary solution to the current social, economic and environmental challenges. Thus, creative entrepreneurship is a coordination of skills and other resources (human and material) towards solving socioeconomic problems through legitimate products/services that bring about financial rewards and sense of fulfilment to the owners.

In view of the above, business environment griped with increased competition, such that customers now have quick access to market information, is leading to products getting obsolete faster. By implication, entrepreneurs are constantly under unnecessary pressure not only to come up with new innovation leading to state-of-the-art products but also, to achieving quick capital turnaround from market acceptability hence, the need to take decisions faster. According to Schumpeter (1934), innovation and entrepreneurship are veritable tools for the development of societies because innovation allows entrepreneurs to take advantage of bigger opportunities for originality which tends to enhance profitability. In other words, through innovative ideas of entrepreneurs, goods and services that are targeted at solving particular needs are developed with attendant socioeconomic benefits capable of improving the society. Thus, economic growth in an environmentally sustainability manner has been recognized as essential condition for human and societal wellbeing (Merkajiw et al., 2019). Although, one may argue that having good life is hinged on many other factors such as peaceful co-existence, having adequate financial resources, having access to balance diet, adequate clothing, good housing, clean water but it is paramount that all these aforementioned factors are subordinate to the environment. Hence, individual and collective economic activities of the society have a direct impact on the environment with some consequences on the planet (earth). For example, Demuth (2014) argues that firms' unsustainable business practices are causing excessive wastes far higher than what can be safely absorbed by the biosphere thereby overburdening the planet's biocapacity. Meanwhile, the problem of climate change does not know geographical boundaries and as such once it strikes, it affects anything within the rage of the nature at a particular point in time. In other words, humanity has transcended its allotted ecological resources as a result of incautious ecological footprints in the course of business activities. Therefore, entrepreneurs' role in proffering enduring solutions to ongoing environmental challenges occasioned by unsustainable business practices cannot be underestimated. Thus, a nation's living standard is proportional to its production capacities in relation to its adopted business models hence, only through the green business model can a nation develop green economy.

2.1.3 The Concept of Firm's Life Cycle in Green Entrepreneurship

Firm's life cycle is the progression of a firm from the time the it was launched in the business world to as long as it can survive within the environment. Thus, so many factors exist in the environment that constitute both opportunities and challenges to the firm during its life cycle. Ability of a firm to decipher those factors and use them to its advantage would define how far it would go in its business endeavour. According to Barbieri, Ghisetti, Gilli, Marin and Nicolli (2016), firm's ability to innovate and commercialise is largely dependent on the stage at the technological and industry lifecycle. In other words, which stage a firm is in its life cycle has an impact on its ability to embrace or adapt technologically. For instance, Malavisi (2018) posits that firm's life cycle and innovative performance underlie its level of success in its chosen sector while, Coad, Segarra and Teruel (2016) indicate that whatever the ability of young new born green firms to penetrate a market and irrespective of innovation or technology adaptability and stage it is on a life cycle scale, it tends to encounter certain difficulties. On the contrary however, Demire et al. (2019) observe that already-established large firms do enjoy economies of scale which, make adoption of certain innovation or technology a bit easy for them to leverage upon in gaining competitive advantage as against the infant firms.

Furthermore, Merkajiw et al. (2019) argue that although innovation process can be executed at different stages of a firm life cycle, new firms tend to incur high costs on research and development (R&D) as well as training of employees whereas, the old established firms tend to be efficient in this regard due to economies of scale experience and gained reputation. However, literature reveals that green entrepreneurship is preponderance in terms of success compared to traditional firms in the long-run despite the initial challenge in technological life cycle at the point of market entry (Verreynne & Meyer, 2010; Marin, Marzucchi & Zoboli, 2015). However, to say that the issue of firm's life cycle is conditioned on the positive outcomes of green entrepreneurship in terms of innovation performance is an understatement because the firm has to fine-tune its existing processes and platform to accommodate new technologies or process. All these would involve consumption of resources which if supported and green entrepreneurship is able to migrate successfully, it would go a long way to safe guard the integrity of our earth planet which had already been over burden by poor environmental management of non-green business firms. For instance, Banerjee and Dutta (2017) argue that sincere integration and implementation does not only send strong signal to others in the business community in terms of getting them aware of need for greening their own business processes too but also leading to the creation of more green products and practices and enhancement of good living for flora and fauna.

2.1.4 The Concept of Institutional Structure in Green Entrepreneurship

Institutional structure can be described as a relatively stable pattern of behaviour of a group of people within a particular region or sector. According to Muhammad and Anuge (2016), institutional structure is an important factor in any type of business landscape. Typical example of institutional framework is the oil sector with the related legal frameworks and norms within which the participants are expected to relate. Thus, upon the discovery of oil in many third world countries occasioned by soaring prices in the '70s accelerated industrialisation occurred, which of course came at the expense of human and natural environment. Against this backdrop, many people acclaimed to be friends of the earth rose against unsustainable business practices by holding various entrepreneurs to account environmentally. Dale (2015) posits that efforts to minimize negative effects of business operations on the environment gave rise to the Stockholm declaration in 1972, Bucharest World Council of Churches conference in 1974, Rio de Janeiro Earth Summit in 1992, among others. During this struggle, the phrase "sustainable development" was coughed out as a slogan used in solidarity for environmental wellness which lately transformed into "green" or "greening" revolution. According to Shapira, Gök, Klochikhin and Sensier (2014), entrepreneurs are the ones behind businesses understanding the benefits of green initiatives and embed environmental objectives into their business aspirations is key for green entrepreneurship development. In the opinion of Darnall and Edwards (2006), green entrepreneurship can exist in two ways namely; 'already established' firms that migrate into greening and new 'born green' firms that

rooted in the funders' concern for socioenvironmental wellness. In other words, green entrepreneurship could either be accidental or deliberate. Therefore, new born green firms are considered originally eco-oriented that tend to operate in an environmental friendly consistent manners towards the restoration of the lost socio-environmental sanity in our society. While, the already established firms which, suddenly realized the need to become green tend to operate in environmentally inconsistent manners **(**Pacheco et al., 2010**)**. This obvious difference in green entrepreneurship types might not be far from the issue of sincerity of purpose in the struggle for taking advantage of green consumerism in the market.

Moreover, Meyskens and Carsrud (2013) argue that born green firms' primary focus is on proactive environmental management while, O'Neill and Gibbs (2016) assert that through holistic approach that transcends formal and informal divide is required in consideration of supportive policies and programmes for green entrepreneurship growth and development. Consequently, Dale (2018) observes that new born green firms usually start very small in form of micro, small and medium enterprises (MSMEs) from just spin-offs and then go through rough and tough process before eventually finding their foot through green reputation and market acceptance. Thus, should new born green firms exist side by side with their already-established large counterparts, efforts should be made to cater for the vulnerability of the new born green firms through government's interventions to make green economy dream realisable (World Bank, 2018; Ball & Kittler, 2017; Suudin & Brown, 2017). This is because green economy facilitates achievement of economic growth amidst less environmental pollution and natural disasters. For instance, Costantini and Mazzanti (2012) assert that economy is the driving force of production and reproduction of social services in which it translates to growth and development greenly over time. Hence, this should be a major focus for every responsible entrepreneur. Specifically, government as a key institutional actor has an important role to play in making sure that it provides adequate supports for green entrepreneurship on the one hand and create an enabling environment for green economy to thrive in another hand. However, Hörisch et al. (2017) argue that since the need to cater for diverse interests including entrepreneurs' own value reorientation and beliefs are what led to the legitimate passion for new green ventures, which sets out to taking advantage of emerging opportunities in the environment then, certain benefits should be open to the green entrepreneurs for such entrepreneurial undertakings. Not only that, Zhaojoun et al. (2017) indicate that, green economy (eco-concerned capitalisms) promoters naturally find fulfilment in the realization of their own personal dreams despite challenges that might come their way in the process of making green products and services available. this makes them appear energetic and unstoppable. Thus, it is apt to have stringent environmental policies that would set standard of behaviours for the citizenry in order to deter environmental-opportunist entrepreneurs from taking undue advantage of the green market.

2.1.5 The Concept of Greenwashing in Green Entrepreneurship

Nature-friendly words such as "eco", "bio", and "organic" sustainability are being used rhetorically by some unscrupulous firms just to deceive unsuspecting consumers to believe that these firms are being conscious of the environment in their business operations (Coad et al., 2016). It has been observed that firms are deliberate in their choice of "greenwashing" habit which literally means to mislead the public through marketing campaigns (Consoli, Marin, Marzucchi & Vona, 2016; Junior, Galleli, Gallardo-Vàzquez & Sànchez-Hernàndez, 2016). Thus, this widespread usage of deceptive green message for market acceptability indicates that firms are now aware that consumers have sympathy for the natural environment and biodiversity. Although, in the midst of these marketing gimmicks, consumers tend to still identify genuine pro-environmental brand(s) that they prefer to patronize at the end of the day. No wonder Dale (2019), argues that consumers are better informed about the negative impact of entrepreneurial activities on their socio-environmental wellbeing today than ever hence, they have started to consider pro-environmental behaviours of each firm and product before finally actualising their buying decisions. According to Bannamar and Gressel (2015), unless entrepreneurs at all levels agree to be genuinely committed to greening, collective aspiration for just and sane society would continue to remain a surreal. Thus, firms that desired to enjoy customers' loyalty should not only produce and market green products and services but must also be able to convince the customers that

green is actually their watchword and adhere to green initiative jealously toward achieving environmental sustainability. Although, this cost would be inevitably worthwhile in the long-run when the firm eventually gained green reputation which tends to pay off for any initial cost incurred handsomely. For instance, Tee, Abdulahi, Din, Abdulahi & Wu (2017) argue that it is economically counterproductive for a firm to interpret being pro-environmental as an unnecessary burden and then go ahead to indulge in greenwashing. The authors argue further that the cost incurred in the process of becoming environmentally responsible can only be higher in the short-run because green reputation would surely bring much higher benefits in the long run.

Furthermore, the act of 'greenwashing' may be regarded as 'economic fraud' because any firm which indulges in it technically would renounce its environmental responsibilities due to the false belief that the cost of being ecofriendly or responsible is unnecessary to bear. O'Neil and Ucbasaran (2016) argue that green reputation represents one of the strong marketing tools of the modern age hence, more products are being packaged in such a way that people would believe they are truly eco-friendly or at least, better than the competitors' own products that are known to be harmful to the environment. Junior et al. (2016) state that although, while some of the supposedly green firms which indulged in greenwashing over-sell their environmental benefits through marketing gimmicks, the genuine pro-environmental brands would eventually be identified and patronized by the public. Hence, the former would eventually lose out of the market upon the availability of the facts behind the figures in the public domain while the eco-oriented business products take over the stage. Taking a cue from this popular saying: "he who kills by the sword shall die by the sword" makes it probable for greenwashers to be haunted by their hypocrite in due course. In any case, greenwashing is unethical marketing practice that will inevitably come back with time to expose whoever found solace in it. More so, the higher the investment in the deceptive green products marketing, the lower the commitment to sustainable environmental practice (Mrkajic et al., 2019; Yousuf et al., 2017). Although, greenwashing may not be completely bad as a practice in some sense because it can help society to become conscious of environmental issues because if firms consistently lay claims (genuinely or not) on sustainability through products/services via marketing communication just to attract consumers, it may lead to gradual shift away from the *status-quo* (business-as-usual) in business operations (Rahman et al., 2016). Be that as it may, greenwashing remains a deceptive marketing tool and unethical profit-making process in the firms' green marketing efforts.

2.2 THEORETICAL REVIEW

2.2.1 Legitimacy Theory

Legitimacy theory as an addendum to the real institutional theory proposes that entrepreneurs should have knowledge about their institutions and structures within the remit of their operating environment (Demuth, 2014). These entrepreneurs should be able to identify and understand these institutions and structures before they could gain legitimacy to provide any goods or services for public acceptance. For instance, Hörisch et al. (2017) posit that institutions are deep-seated aspects of the social structures with tendency to define or issue authoritative guidelines, which must be followed by the firms or entrepreneurs. Similarly, Khan (2015) argues that unless there is an equilibrium between the economic growth for wealth accumulation and protection of the environment, no institution can gain legitimacy let alone sustainable development. Legitimacy theory is one of the most recently discovered alternatives within the remit of institutional theory which enjoins entrepreneurs to leverage on the institutions to gain legitimacy needed for survival (Jones & Gethinger, 2016; Shapira et al., 2014). Thus, legitimacy in this context represents a perception of the nature of the relationship between a firm and other institutions within the purview of its operations vis-à-vis the societal norms and values all of which must remain in tandem with one another. This is so because greening is a sustainability oriented business management approach that has come to right historical wrongs done by the old business management approach to business operations. It is therefore expedient for smart entrepreneurs to start

embracing greening in their entrepreneurial adventures in the new world of business. In other words, "green" is a new world order that must be supported by all.

2.2.2 Knowledge Spillover Theory

Often times, business advantages and opportunities emanate from the internally stored knowledge. According to Audretsch (1995), business knowledge acquired and retained internally over time amounts to available knowledge stockpile, which can also serve as a good basis for knowledge spillover for further entrepreneurship development. In the same vein, Acs, Audretsch, Braunerhjelm and Carlsson (2009) observe that the knowledge spillover theory helps entrepreneurs to take advantage of available opportunities from the recently discovered knowledge through the first stage of innovative ideas generation to the commercialization phase. Thus, knowledge spillover theory of entrepreneurship tends to stimulate new business start-ups in a particular region due to the awareness of initiatives earlier held on eco-oriented start-ups and sectorial-based policies for local communities (Colombelli & Quatraro, 2017; Barbieri et al., 2016). Thus, regional based knowledge diversity may aid green business start-ups in which complementary technological diversity for green entrepreneurship growth and development are embraced. In other words, regional knowledge stock deposit portends advantage for the green start-ups in different areas of business hence, it is expedient to suggest green firms convergent and focus on knowledge creation, storing and dissemination toward gaining competitive advantage.

2.2.3 Multiple Stakeholder Perspective

Despite the long-held belief of the classical economists that stakeholders tend to benefit from firm's economic prosperity in form of wealth (profit) spillover, neglect of the environment by businesses is an injustice to stakeholders. For instance, Muo and Ariyo (2018) argue that classical economists' argument in support of efficacy of 'invisible hand' in regulation of business and human affairs does not always hold true. Considering Muo and Ariyo's argument, one can only remember the rate of environmental degradation with attendant ill-heaths ensuing from unsustainable business practices although, this is no longer sustainable in the contemporary world. For instance, the level of externalities usually borne out from anthropogenic at the expense of the natural environment and biodiversity is enough a reason for green entrepreneurship to be promoted. In addition, Frederik, Layla and Stephen (2017) posit that environmental pollution and greenhouse gas emission (ghg) are adjudged to be responsible for climate change problem with lots of threats to the humanity rooted out of anthropogenic. Similarly, Hassan and Kouhy (2016) argue that businesses affect stakeholders in both positive and negative ways depending on the relationship each stakeholder has with the business. While the authors indicate that the positive sides include the provision of products/services that meet particular societal needs, provision of job opportunities and advancing improvement in peoples' living standard, the negative sides include incessant dominance of spaces, exploitation of workers, and extortion of the public through profiteering, environmental degradation among others. Also, Muhammed (2018) observes that the negative externalities caused by businesses outweigh the positive impacts they had on stakeholders. Therefore, we base our argument against traditional business model in favour of green entrepreneurship on the basis of the existence of multiple stakeholders to the business within the environment. Hence the narrowly defined businesses goals as profit maximization is out of date.

3 AIM AND METHODOLOGICAL BASES

The aim of this study is to explore various perspective to green entrepreneurship with a view to simplifying some unresolved key concepts and synthesizing current views in the field. Specifically, we set new agenda for future research trend on the emerging field of green entrepreneurship. However, the methodology adopted to achieve objective of the study was an integrative review of literature. With this, researchers were able to explore historical, contextual, and new trends in green entrepreneurship through systematic search approach to online and hard-copy of relevant publications in the field.

4 RESULTS

In the course of the study, we identify the rarity of studies in the field which have been able to articulate step-by-step movement of old established firms into the modern green entrepreneurship domain. Hence, we argue that a lot still need to be done to ensure holistic clarification of key concepts in order to aid development of green entrepreneurship. Also, we observe that concepts such as industry life cycle, entrepreneurship knowledge stock, knowledge spill-over, institutional frameworks, entrepreneurship financing, green entrepreneurship decision-making processes are all open for further clarifications. More so, we identify that the number of old established firms and new born green firms (green entrepreneurship) are on the increase due to the consumers' awareness of the benefit of greening as well reflecting in their buying decisions. Relatedly, we equally observe the challenges facing new born green firms to penetrate the market some of which include old established firms' dominance and lack of adequate policy supports. However, it can be inferred that the chances for green entrepreneurship success due to public yearning for sustainability is higher. Also, we articulate the mode of departure from the old entrepreneurship management philosophy into the newer sustainable oriented green entrepreneurship management model. Last but not the least, we discover that entrepreneurs with business-as-usual model which was narrowly focused on profit maximization are the ones indulged in "greenwashing" knowing that 21st century consumers loyal only to the green businesses and products. In other words, importance of green entrepreneurship in proffering an enduring solution to the global environmental problems cannot be ooverrated.

5 DISCUSSION

On a global scale, appreciable attention has been shifted to the green business model or processes perhaps for its ability to bring about "sustainability". This development was instigated by the deleterious effect of unsustainable businesses practices of the old business model. Continuous contribution into environmental pollution (air, water and land) endangering humanity and even the planet (earth) integrity compelled the world to form a common front toward proffering sustainable solution to the global environmental crisis. In the process, businesses and even economy are being checkmated through regulations, policies and treaties. Regrettably, it dawned on us that these legal instruments are less effective thereby making little or no impact in abating global environmental crisis. Since, it has been widely acknowledged that most of these environmental problems emanated from business activities, scholars are of the opinion to address it from the root-cause hence, need for business practice reorientations and advocacy for voluntary environmental practices by businesses. However, the principle of green entrepreneurship if carefully harnessed it is capable of helping the world to curtail the propensity of environmental incidences in our society. Thus, green practices entail reduction in the paper and other natural resources, stock consumption and increase electronic storage/filling, car sharing, job sharing, teleconferencing and virtual interviews, recycling, telecommuting, online training, energy efficiency among others. Of course, green entrepreneurship is an emerging field but we found the trace of collaboration among the scholars and practitioners alike in exploring the newness of green entrepreneurship in view of achieving wider understanding and propagation of basic principles, processes, programmes, procedures, and practices in green entrepreneurship management.

Furthermore, in accordance with Khan (2015)'s account where he argues that leadership is one of the critical factors militating against general acceptability of green entrepreneurship, we also point to the fact that processes and workforce needed to be infected with green initiatives. In addition, we observe that institutionalization of training and development suitable for entire workforce from the top managers to the floor supervisors plus holistic integration and involvement of staff in direct communication are part of enablement for green firms. After all, it the green attitude that can instigate green behaviours which in turn reinforce green practice in the firms. For this to happen, green entrepreneurs must learn to incentivize the process such that green contributions are identified and

rewarded to get a popular buy-in of every member of staff within an establishment. Thus, some of the direct benefits of green entrepreneurships be it in an already well established firm that later joined green train or a new born green firm that is consciously eco oriented, include to minimization of energy cost and other nonrenewable resources costs, enhanced sustainability of the process and gains, free dissemination of green messages among employees, customers, shareholders and other stakeholders to show that the firm actually cares for the natural environment.

More so, it is important to recognize that the benefits of green entrepreneurship spanned beyond the immediate business operational and corporate goals and objectives accomplishment to include other benefits that are not necessarily captured in the organizational goals yet critical for the society at large. These indirect benefits may include treating the effluents from the business operations before it is let out to ensure clean less-diluted air in the environment for citizens to enjoy freshness of breathing at all times. Again, we maintained that another essence of green entrepreneurships is the introduction and implementation of environmentally friendly business initiatives that fostering greater efficiency, low staff turnover, improve employees' engagement and retentions and ultimately gaining of competitiveness. Some of these reasons and benefits of green entrepreneurship we have discussed related to what Banerjee and Dutta (2017) earlier identified when they concluded that treaties, policies and regulations should be made to support green practice in our firms by making it mandatory and reward voluntary green entrepreneurship at the same time in order to eradicate or minimize negative impacts on the society and biodiversity. Unfortunately, as some responsible firms keep finding efficient ways of curbing their environmental footprints, many others who are synonymous with greenwashing remained indifferent even at this critical time the world is bent on preserving the natural environment for better and healthier eco system. However, reorientation of workforce about compelling need to reintegrate environmental success indicators into the existing financial indices towards sustainable development basically requires green policies, procedures and programmes presided over by the strong leadership commitment to achieve sustainability. Thus, the common belief that business that are just implementing green programmes may encounter preliminary challenges is to an extent valid but the likelihood that the efforts would pay off at the end is much higher. Thus, entrepreneurs can either green their existing businesses or simply enter into green entrepreneurship. In any case, the primary concern should be to make our world a conducive and better place for us all to live in hence, need for academic institution to partner with businesses, government and non-governmental institutions in promoting green practice.

6 CONCLUSION AND RECOMMENDATIONS

The paper concludes that benefits of green entrepreneurship are enormous. Some of these benefits may include efficiency to own firm, creation of community goodwill (the basis for amity relationship with the host communities, employees and other stakeholders), consistent open feedback loop (to receive and disseminate useful information from/to the general public) as some of many opportunities open to organizations with genuine green programs. Furthermore, we note that there are still some unresolved issues in the field of green entrepreneurship. Also, the paper highlighted a need for green entrepreneurship to maintain a cluster-like arrangement and knowledge database for effective dissemination of contemporary green information and clarification of entrepreneurship conceptual definitions. The study equally underscores some knotty issues at the inter-disciplinary crossroads, need for green entrepreneurship policy inclusiveness, reason for and danger in greenwashing. Specifically, the paper provides a new lens at viewing green entrepreneurship in order to understand the role of entrepreneurship as a bridge to building a sustainable green economy in support of Demirel et al. (2019) call in a fascinating study on the behaviour of born green firms and already established firms. More so, the paper identifies the influence of globalization and modernization in business processes vis-à-vis unprecedented pressure being mounted on the business firms to embrace greening in order to realize sustainable development as some of the reasons businesses have to review their operating plans, policies, procedures and programs.

Yet, we indicate that greening of the business happened at various levels of business operations. Specifically, the paper simplifies the concept of green entrepreneurship, described emergent, growth process and benefits of green entrepreneurship. Also, we elucidate related green entrepreneurship concepts and strategies for nurturing green entrepreneurship as well as differentiated between the new born green firms and old already-established firms. In addition, we conclude that new born green firms stand a chance to benefit more from external green strategies in terms of products/services and customers' accessibility and loyalty compare to their conventional entrepreneurs counterparts. More so, we argue that leveraging on internal green strategies like pro-environmental behaviours of employees and green reputation are formidable assets for competitive advantage. We therefore shed light on the link between green technology and firms. Particularly, the paper identify that very little is known concerning the role of change management in the green entrepreneurship literature. Since greening is a form of innovation that requires behavioural changes and habit modification, it is necessary to understand how these change process unfolds hence, need for change management experts contribution to the field of greening. Therefore, we recommend that future research focus on addressing this research concern. Lastly, we acknowledge the limitations in the study which include inability of the authors to collect and analyse data and test research hypotheses.

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ASSESSING THE MARKET, FINANCIAL AND ECONOMIC RISK SOURCES BY CZECH AND SLOVAK SMES

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ABSTRACT

The market, economic and financial risks are the most important risks, which determine the quality and performance of small and medium sizes enterprises. The main objective of the article is to evaluate the most important sources of market, economic and financial risk between Slovak and Czech SMEs according gender and size of enterprise. The questionnaires of 895 entrepreneurs were collected and prepare on evaluating in the year 2018. The statistical hypotheses were accepted through the mathematical method as is Z-score. The gender of entrepreneur and size of enterprises between Slovak and Czech entrepreneurs is a significant factor of evaluating the sources of economic risk, as is development of the tax and insurance burden; weak availability of the financial resources (loans, foundations); development of the interest rates; growing prices of all types of energy. According to the evaluation of entrepreneurs, the intensity of sources of economic risk in Slovak business environment is higher than in Czech business environment.

KEYWORDS: economic risk, financial risk, gender, market risk, risk source, small and medium-sized enterprise

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INTRODUCTION

A set of influences affecting the existence and development of all business activities is generally denoted as business environment. The results of business activities are considerably dependent on the business environment a company operates in (Buganová & Moricová, 2017; Fabuš, 2017). Conditions under which companies operate, or develop their activities, have a significant impact on their performance, competitiveness and growth potential, as well as they determine the attractiveness of a particular state for foreign investors (Fabuš, 2017).

Small and medium enterprises are facing constant changes in the business environment and the way to deal with these changes also depends on the ability of the enterprise to adapt and accept the variability

of everyday life (Petrenko *et al.*, 2017; Karpak & Topcu, 2011). The issues of important risks management in small and medium-sized enterprises (SMEs) have been analysed and discussed for a long time (Havierniková & Kordoš, 2019; Bilan *et al.*, 2017).

The paper is structured as follows. Section 2 briefly introduces the risk management process, the importance of entrepreneurs of companies. Section 3 introduces literature review of the key risks and their sources in business environment. Section 4 describes the empirical background, i.e. aim of the article, the methodology of data collection, formulate statistical hypotheses and methods. Section 5 presents and the main and important empirical results. Section 6 compares the findings of the paper with the findings of other authors. In the concussion, the limits of research and the future research of authors are presented.

1 SHORT THEORETICAL BACKGROUND

The market risk is the exposure to a potential loss that would be triggered by changes in market prices or rates. All companies are exposed to some forms of the market risk. The level and form of the market risk exposure differ by industries, and by companies within an industry. The major types of market risks are (Lam, 2003): interest rate risk, foreign exchange risk, commodity risk, equity risk, basis risk, other market driven risk. In addition to the most common market risk types listed above, there are other market risks, such as option risks and exposures to other market prices (Hudakova *et al.*, 2017).

An SME's approach to risk management is also dependent on its attitude to sustainable development, as can be seen in the Czech Republic (Dobeš *et al.,* 2019) and in Slovenia (Mikušova, 2017). In both countries a company's risk management policy is very dependent on its managers' responsibility, both to owners and to other stakeholders.

If the companies do not identify financial and economic risks and do not apply a risk management strategy, their sustainability can be affected (Belas & Sopkova, 2016). The most serious risks are economic (Kozak & Danchuk, 2016) and financial risks (Oláh et al., 2019; Leon, 2015). According to Pochitaev & Filippova (2016), there are several types of financial risk, including loan risk, asset-backed risk, credit risk, foreign investment risk, liquidity risk, market risk, and operational risk, etc. Tinoco & Wilson (2013) state that financial risk can cause SMEs to default due to a lack of bank financing.

Additionally, according to Jegadeeshwaran and Basuvaraj (2019), SMEs are not the attractive client for bank lenders. Degryse and van Cayseele (2000) examined the relationship between interest rates and loan amount. Koisova *et al.* (2017) studied relations between SMEs credit availability and banks' organisational structure. They stated that companies size and age have an important role in obtaining external finance (Virglerova, 2018).

Additionally, Kljucnikov e*t al.* (2017) asserted, that smaller and younger companies have bigger problems with external financing and also pay higher prices. Further Meyer and Meyer (2017) explained that conditions for SMEs have worsened because of the global financial crisis. Studies, available in the Slovak Republic, do not analyse the evolution, do not identify barriers and do not formulate proposals, that may be useful for SMEs external financing (Hudakova *et al.*, 2018).

2 AIM, METHODOLOGY AND METHODS

The main objective of the article is to evaluate the most important sources of market, economic and financial risk between Slovak and Czech SMEs according gender and size of enterprise. The statistical unit of research was a single enterprise (manager). The entrepreneurs were selected with using "the random selection method" (with using function "Randbetween") from specialized database of

entrepreneurs for each country (Slovakia – Cribis database, Czech Republic – Albertina database. Out of 895 small and medium-sized enterprises analysed Slovakia represented 54.4% respondents and the Czech Republic 45.6% respondents.

Entrepreneurs could give their opinion to the risk sources which affect the company intensively – a very low intensity (V1); a low intensity (V2); a medium intensity (V3); a high intensity (V4) and a very high intensity of the risk source (V5). The sources of the selected risks are for:

- *The market risks (R1):* involve loosing the customers (R11); strong competition in the line of business (R12); stagnation of the market (R13); unreliability of the suppliers (R14);
- *The economic risks (R2):* development of the tax and insurance burden (R21); weak availability of the financial resources (loans, foundations) (R22); development of the interest rates (R23); growing prices of all types of energy (R24);
- *The financial risks (R3):* insufficient company profit (R31); indebtedness of the company (high share of the foreign capital) (R32); unpaid receivables (R33); inability to pay obligations (insolvency) (R34).

The author considers important to investigate the differences in the values of the market, economic and financial risk sources – the answers bring a high intensity of the risk source (V4) and a very high intensity of the risk source (V5). To fulfill the main task of the paper the authors formulated the following statistical hypotheses:
H1: The gender is the statistical significant factor of evaluating the sources of market risk (H1A), the financial risk (H1B) and the economic risk (H1C) between Slovak and Czech enterprises.
H2: The size of enterprise is the statistical significant factor of evaluating the sources of market risk (H2A), the financial risk (H2B) and the economic risk (H2C) between Slovak and Czech enterprises.

In order to evaluate the given hypotheses essential to meet the main goal of the article, the author used the descriptive statistics tools (pivot table, relative and absolute frequency) in the first step. In order to determine the frequency of entrepreneurs' answers, we used a simple sorting of the statistical sign (R11, …, R34) and the sorting according to two statistical sign (selected country and type of answer (V1, V2, …, V5)). Descriptive characteristics are needed to calculate Z-score. The Z-score method was applied to accept or reject statistical hypotheses (H1A, …, H2C). The assumption for carrying out the Z-test (normal distribution of samples according to statistical features and the representativeness of the sample – number of entrepreneurs) were fulfilled. All these results were performed using the SPSS Statistics analytical software for data evaluation.

The structure of the entrepreneurs´ characteristics who filled in the questionnaire was as follows: **Slovakia (SR):** male (M) entrepreneurs – 66.8%; female (F) entrepreneurs – 33.2%; the age - up to 30 years – 20.3%; from 31 to 50 years – 55.2%; over 50 years – 24.5%; the achieved education – secondary school without the school-leaving exam – 11.9%; secondary school with the school-leaving exam – 52.8%; university graduates – 35.3%. **Czech Republic (CR):** male entrepreneurs (M) – 71.1%; female entrepreneurs (F) – 28.9%; the age - up to 30 years – 16.7%; from 31 to 50 years – 26.2%; over 50 years – 57.1%; the achieved education – secondary school without the school-leaving exam – 18.9%; secondary school with the school-leaving exam – 47.8%; university graduates – 33.3%.

3 RESULTS

3.1 Partial results of market risk

The following Tables 1, 2, 3 and 4 summarise the results of the assessment of the market risk´ sources (R11, R12, R13, R14) of entrepreneurs according to gender and the size of the enterprise. Also, there is comparison (Z-score) according to nationality of entrepreneurs.

The structure of the entrepreneurs´ answers (source R11 of market risk) according gender (G; F – female, M – Male) and size of enterprise (SE; MSE – micro and small enterprise; ME – medium enterprise) were: **SR:** G(M/F) – V1 – 39/15; V2 – 61/29; V3 – 95/32; V4 – 75/45; V5 – 55/41 and SE(MSE/ME) - V1 – 51/3; V2 – 78/12; V3 – 109/18; V4 – 106/14; V5 – 85/11; **CR:** G(M/F) – V1 – 21/5; V2 – 58/28; V3 – 82/28; V4 – 78/24; V5 – 51/33 and SE(MSE/ME) - V1 – 25/1; V2 – 76/10; V3 – 97/13; V4 – 84/18; V5 – 75/9.

Table 1 **The evaluation „involve loosing the customers" by entrepreneurs**

R11	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	191	159	25	27	86	57	130	129
[%]	44.5	44.5	43.1	52.9	53.1	48.3	40.0	44.5
Z- score	-0.004		-1.026		0.790		*-0.348*	
(P- value)	1.000		0.303		0.429		*0.726*	

(Source: own data collection)

There are no statistically significant differences of evaluating (V4+V5) the involve loosing the customers between entrepreneurs of the Slovak Republic and Czech Republic according gender and size of enterprise (see Table 1; P- values of Z-score are greater than 0.05).

The structure of the entrepreneurs´ answers (source R12 of market risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 17/7; V2 – 52/16; V3 – 109/55; V4 – 107/56; V5 – 40/28 and SE(MSE/ME) - V1 – 21/3; V2 – 61/7; V3 – 143/21; V4 – 142/21; V5 – 62/6; **CR:** G(M/F) – V1 – 24/4; V2 – 45/19; V3 – 127/41; V4 – 64/38; V5 – 30/18 and SE(MSE/ME) - V1 – 28/0; V2 – 58/6; V3 – 146/22; V4 – 84/18; V5 – 41/5.

Table 2 **The evaluation „strong competition in the line of business" by entrepreneurs**

R12	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	204	125	27	23	84	54	147	94
[%]	47.6	35.0	46.6	45.1	51.9	45.8	45.2	32.4
Z- score	**3.548**		0.152		1.006		**3.250**	
(P- value)	**<0.001**		0.881		0.312		**0.001**	

(Source: own data collection)

There are statistically significant differences of evaluating (see Table 2; V4+V5) the strong competition in the line of business between entrepreneurs (male entrepreneurs; micro and small enterprise) of the Slovak Republic and Czech Republic (M: P-value of Z-score is 0.001; MSE: P-value of Z-score is less than 0.001).

The structure of the entrepreneurs´ answers (source R13 of market risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 49/19; V2 – 72/39; V3 – 145/74; V4 – 42/19; V5 – 17/11 and SE(MSE/ME) - V1 – 62/6; V2 – 99/12; V3 – 192/27; V4 – 51/10; V5 – 25/3; **CR:** G(M/F) – V1 – 46/20; V2 – 78/28; V3 – 115/50; V4 – 43/18; V5 – 8/2 and SE(MSE/ME) - V1 – 61/5; V2 – 91/15; V3 – 147/18; V4 – 48/13; V5 – 10/0.

Table 3 **The evaluation „stagnation of the market" by entrepreneurs**

R13	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	76	58	13	13	30	20	59	51
[%]	17.7	16.2	22.4	25.5	18.5	16.9	18.2	17.6
Z- score	0.545		-1.487		0.339		0.183	
(P- value)	0.582		0.136		0.728		0.857	

(Source: own data collection)

There are no statistically significant differences of evaluating (V4+V5) the stagnation of the market between entrepreneurs of the Slovak Republic and Czech Republic according gender and size of enterprise (see Table 3; P- values of Z-score are greater than 0.05).

The structure of the entrepreneurs´ answers (source R14 of market risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 86/42; V2 – 103/57; V3 – 75/32; V4 – 48/22; V5 – 13/9 and SE(MSE/ME) - V1 – 118/10; V2 – 140/20; V3 – 93/14; V4 – 61/9; V5 – 17/5; **CR:** G(M/F) – V1 – 78/37; V2 – 84/38; V3 – 70/32; V4 – 46/8; V5 – 12/3 and SE(MSE/ME) - V1 – 106/9; V2 – 105/17; V3 – 91/11; V4 – 40/14; V5 – 15/0.

Table 4 **The evaluation „unreliability of the suppliers" by entrepreneurs**

R14	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	78	55	14	14	31	11	61	58
[%]	18.2	15.4	24.1	27.5	19.1	9.3	18.8	20.0
Z- score	1.033		-1.306		**2.271**		-0.386	
(P- value)	0.303		0.281		**0.023**		0.696	

(Source: own data collection)

There are statistically significant differences of evaluating (V4+V5) the unreliability of the suppliers between entrepreneurs (female entrepreneurs) of the Slovak Republic and Czech Republic (see Table 4; F: P-value of Z-score is 0.023).

The hypothesis H1A and the hypothesis H2A were rejected. Generally, no exist statistically significant differences of evaluating sources of market risk between SR and CR entrepreneurs according gender and size of enterprise.

3.2 Partial results of economic risk

The following Tables 5, 6, 7 and 8 summarise the results of the assessment of the economic risk´ sources (R21, R22, R23, R24) of entrepreneurs according to gender and the size of the enterprise. Also, there is comparison (Z-score) according to nationality of entrepreneurs.

The structure of the entrepreneurs´ answers (source R21 of economic risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 21/11; V2 – 49/23; V3 – 100/51; V4 – 83/47; V5 – 72/30 and SE(MSE/ME) - V1 – 30/2; V2 – 57/2; V3 – 129/22; V4 – 116/14; V5 – 97/5. **CR:** G(M/F) – V1 – 17/9; V2 – 43/20; V3 – 117/47; V4 – 42/11; V5 – 71/31 and SE(MSE/ME) - V1 – 23/3; V2 – 54/9; V3 – 136/28; V4 – 92/10; V5 – 52/1.

Table 5 **The evaluation „development of the tax and insurance burden" by entrepreneurs**

R21	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	213	144	19	11	77	42	155	113
[%]	49.7	40.3	32.9	23.6	47.5	35.6	47.7	39.0
Z- score	**2.611**		1.305		**1.995**		**2.179**	
(P- value)	**0.009**		0.190		**0.045**		**0.029**	

(Source: own data collection)

There are statistically significant differences of evaluating (see Table 5; V4+V5) the development of the tax and insurance burden between entrepreneurs (female and male entrepreneurs; micro and small enterprise) of the Slovak Republic and Czech Republic (MSE: P-value of Z-score is 0.009; F: P-value of Z-score is 0.045; F: M-value of Z-score is 0.029).

The structure of the entrepreneurs´ answers (source R22 of economic risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 49/19; V2 – 105/37; V3 – 105/66; V4 – 42/26; V5 – 24/14 and SE(MSE/ME) - V1 – 59/9; V2 – 120/22; V3 – 155/16; V4 – 59/9; V5 – 36/2; **CR:** G(M/F) – V1 – 58/20; V2 – 122/43; V3 – 81/41; V4 – 25/9; V5 – 4/5 and SE(MSE/ME) - V1 – 65/13; V2 – 142/23; V3 – 110/12; V4 – 31/3; V5 – 9/0.

Table 6 **The evaluation „weak availability of the financial resources" by entrepreneurs**

R22	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	95	40	11	3	40	14	66	29
[%]	22.1	11.2	19.0	5.9	24.7	11.9	20.3	10.0
Z- score	**4.049**		**2.037**		**2.686**		**3.531**	
(P- value)	**<0.001**		**0.041**		**0.007**		**<0.001**	

(Source: own data collection)

There are statistically significant differences of evaluating (V4+V5) the weak availability of the financial resources between entrepreneurs of the Slovak Republic and Czech Republic according gender and size of enterprise (see Table 6; P-values of Z-score are less than 0.05).

The structure of the entrepreneurs´ answers (source R23 of economic risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 57/25; V2 – 116/43; V3 – 89/62; V4 – 52/23; V5 – 11/9 and SE(MSE/ME) - V1 – 76/6; V2 – 135/24; V3 – 129/22; V4 – 70/5; V5 – 19/1; **CR:** G(M/F) – V1 – 64/23; V2 – 119/52; V3 – 81/30; V4 – 23/10; V5 – 3/3 and SE(MSE/ME) - V1 – 76/11; V2 – 146/21; V3 – 97/14; V4 – 32/5; V5 – 6/0.

Table 7 **The evaluation „development of the interest rates" by entrepreneurs**

R23	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	89	38	6	5	32	13	63	26

[%]	20.7	10.6	10.3	9.8	19.8	11.0	19.4	9.0
Z- score (P- value)	**3.831** **<0.001**		0.093 0.928		**1.965** **0.049**		**3.666** **<0.001**	

(Source: own data collection)

There are statistically significant differences of evaluating (see Table 7; V4+V5) the development of the interest rates between entrepreneurs (female and male entrepreneurs; micro and small enterprise) of the Slovak Republic and Czech Republic (MSE: P-value of Z-score is less than 0.001; F: P-value of Z-score is 0.049; F: M-value of Z-score is less than 0.001).

The structure of the entrepreneurs´ answers (source R24 of economic risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 25/15; V2 – 71/30; V3 – 109/54; V4 – 91/41; V5 – 29/22 and SE(MSE/ME) - V1 – 38/2; V2 – 91/10; V3 – 139/24; V4 – 115/17; V5 – 46/5; **CR:** G(M/F) – V1 – 30/12; V2 – 79/38; V3 – 101/40; V4 – 64/22; V5 – 16/6 and SE(MSE/ME) - V1 – 41/1; V2 – 100/17; V3 – 118/23; V4 – 76/10; V5 – 22/0.

Table 8 **The evaluation „growing prices of all types of energy" by entrepreneurs**

R24	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	161	79	22	10	63	28	120	80
[%]	37.5	22.1	37.9	19.6	38.9	23.7	36.9	27.6
Z- score (P- value)	**4.668** **<0.001**		**2.096** **0.036**		**2.674** **0.008**		**2.467** **0.013**	

(Source: own data collection)

There are statistically significant differences of evaluating (V4+V5) the growing prices of all types of energy between entrepreneurs of the Slovak Republic and Czech Republic according gender and size of enterprise (see Table 8; P-values of Z-score are less than 0.05).

The hypothesis H1B and the hypothesis H2B were accepted. Generally, there are statistically significant differences of evaluating sources of economic risk between SR and CR entrepreneurs according gender and size of enterprise.

3.3 Partial results of financial risk

The following Tables 9, 10, 11 and 12 summarise the results of the assessment of the financial risk´ sources (R31, R32, R33, R34) of entrepreneurs according to gender and the size of the enterprise. Also, there is comparison (Z-score) according to nationality of entrepreneurs.

The structure of the entrepreneurs´ answers (source R31 of financial risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 37/19; V2 – 80/35; V3 – 106/48; V4 – 71/37; V5 – 31/23 and SE(MSE/ME) - V1 – 45/11; V2 – 102/13; V3 – 142/12; V4 – 93/15; V5 – 47/7; **CR:** G(M/F) – V1 – 27/13; V2 – 75/20; V3 – 96/34; V4 – 68/39; V5 – 24/12 and SE(MSE/ME) - V1 – 36/4; V2 – 81/14; V3 – 114/16; V4 – 94/13; V5 – 32/4.

Table 9 **The evaluation „insufficient company profit" by entrepreneurs**

R31	Size of Enterprise (SE)	Gender (G)

	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	140	126	22	17	60	51	102	92
[%]	32.6	35.3	37.9	33.3	37.0	43.2	31.4	31.7
Z- score	-0.785		0.499		-1.044		-0.090	
(P- value)	0.435		0.617		0.298		0.928	

(Source: own data collection)

There are no statistically significant differences of evaluating (V4+V5) the insufficient company profit between entrepreneurs of the Slovak Republic and Czech Republic according gender and size of enterprise (see Table 9; P-values of Z-score are greater than 0.05).

The structure of the entrepreneurs´ answers (source R32 of financial risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 107/53; V2 – 110/41; V3 – 58/40; V4 – 36/20; V5 – 14/8 and SE(MSE/ME) - V1 – 145/15; V2 – 140/11; V3 – 82/16; V4 – 45/11; V5 – 17/5; **CR:** G(M/F) – V1 – 117/452; V2 – 90/29; V3 – 44/26; V4 – 31/11; V5 – 8/7 and SE(MSE/ME) - V1 – 147/15; V2 – 103/16; V3 – 55/15; V4 – 37/5; V5 – 15/0.

Table 10 **The evaluation „indebtedness of the company" by entrepreneurs**

R32	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	72	52	16	5	28	18	50	39
[%]	16.8	14.6	27.6	9.8	17.3	15.3	15.4	13.4
Z- score	0.849		**2.348**		0.453		0.681	
(P- value)	0.395		**0.019**		0.653		0.497	

(Source: own data collection)

There are statistically significant differences of evaluating (V4+V5) the indebtedness of the company between entrepreneurs (medium enterprises) of the Slovak Republic and Czech Republic (see Table 10; ME: P-value of Z-score is 0.019).

The structure of the entrepreneurs´ answers (source R33 of financial risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 104/45; V2 – 77/36; V3 – 64/39; V4 – 49/26; V5 – 31/16 and SE(MSE/ME) - V1 – 138/11; V2 – 104/9; V3 – 84/19; V4 – 65/10; V5 – 38/9; **CR:** G(M/F) – V1 – 82/35; V2 – 66/31; V3 – 69/20; V4 – 58/25; V5 – 15/7 and SE(MSE/ME) - V1 – 105/12; V2 – 83/14; V3 – 74/15; V4 – 74/9; V5 – 21/1.

Table 11 **The evaluation „unpaid receivables" by entrepreneurs**

R33	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	103	95	19	10	42	32	80	73
[%]	24.0	26.6	32.8	19.6	25.9	27.1	24.6	25.2
Z- score	-0.836		1.550		-0.223		-0.159	
(P- value)	0.401		0.121		0.826		0.872	

(Source: own data collection)

There are no statistically significant differences of evaluating (V4+V5) the unpaid receivables between entrepreneurs of the Slovak Republic and Czech Republic according gender and size of enterprise (see Table 11; P-values of Z-score are greater than 0.05).

The structure of the entrepreneurs´ answers (source R34 of financial risk) according gender (F; M) and size of enterprise (MSE; ME) were: **SR:** G(M/F) – V1 – 121/58; V2 – 82/40; V3 – 65/32; V4 – 31/16; V5 – 26/16 and SE(MSE/ME) - V1 – 162/17; V2 – 108/14; V3 – 84/13; V4 – 39/8; V5 – 36/6; **CR:** G(M/F) – V1 – 96/39; V2 – 82/31; V3 – 56/21; V4 – 39/19; V5 – 17/8 and SE(MSE/ME) - V1 – 118/17; V2 – 101/12; V3 – 69/8; V4 – 48/10; V5 – 21/4.

Table 12 **The evaluation „inability to pay obligations (insolvency)" by entrepreneurs**

R34	Size of Enterprise (SE)				Gender (G)			
	MSE		ME		F		M	
	SR	CR	SR	CR	SR	CR	SR	CR
V4+V5	75	69	14	14	32	27	57	56
[%]	17.5	19.3	24.1	27.5	19.8	22.9	17.5	19.3
Z- score	-0.666		-0.395		-0.634		-0.566	
(P- value)	0.503		0.689		0.529		0.568	

(*Source:* own data collection)

There are no statistically significant differences of evaluating (V4+V5) the inability to pay obligations (insolvency) between entrepreneurs of the Slovak Republic and Czech Republic according gender and size of enterprise (see Table 12; P-value of Z-score are greater than 0.05).

The hypothesis H1C and the hypothesis H2C were rejected. Generally, no exist statistically significant differences of evaluating sources of financial risk between SR and CR entrepreneurs according gender and size of enterprise.

4 DISCUSSION

According to the entrepreneurs' evaluations, the most serious sources of market risk is losing customers. 44.9% of entrepreneurs (i.e. 402/895 entrepreneurs) reported that losing costumers is a high or very high intensity market risk. There are no significant differences between SR and CR entrepreneurs according gender of entrepreneur and size of enterprise.

The management weaknesses are widely considered to be the most important internal growth constraint facing SMEs (Hudakova & Dvorsky, 2019; Barbero *et al.*, 2011). An important factor is whether the management of SMEs have the skills to be able to spot and to take opportunities when resources are scarce and information is expensive (Belas & Sopkova, 2016).

According to the entrepreneurs' evaluations, the most serious sources of economic risk is development of the tax and insurance burden. 43.2% of entrepreneurs (i.e. 387/895 entrepreneurs) reported that development of the tax and insurance burden is a high or very high intensity economic risk. The gender of entrepreneur and size of enterprises between Slovak and Czech entrepreneurs is a significant factor of evaluating the sources of economic risk, as is development of the tax and insurance burden; weak availability of the financial resources (loans, foundations); development of the interest rates; growing prices of all types of energy.

According to the entrepreneurs' evaluations, the most serious sources of financial risk is insufficient company profit. 34.1% of entrepreneurs (i.e. 305/895 entrepreneurs) reported that losing costumers is a high or very high intensity market risk. There are no significant differences between SR and CR entrepreneurs according gender of entrepreneur and size of enterprise.

CONCLUSIONS

The author compared the assessment of the source of market risk, economic and financial risk. The main criteria for comparison were the entrepreneur's gender and the size of the enterprise.

The article showed interesting results. Gender of entrepreneur and the size of the enterprise is important to the evaluation of sources of economic risk. Slovak entrepreneurs perceive sources of financial risk more intensively than Czech entrepreneurs.

The involvement of the risk management to the everyday activities of the managers will help the companies to prevent the entrepreneurial errors and to ensure correct management which is closely connected with the stated level of the risk acceptability.

This research provides valuable results regarding the business environment and risk management in small and medium-sized enterprises in the Czech and Slovak Republic.
However, the limitations of this study cannot be overlooked. These include the possibility that the entrepreneurs did not adequately understand the issues involved or that some statements in the questionnaire was expressed wrongly.

It is worth to concentrate our future research on the comparison of the other risks and their sources influencing the quality of the business environment (security risk, legislative risk, operational risk or corruption) according to the socio-economic characteristics of entrepreneurs.

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DIMENSIONS OF CSR IN ONLINE COMMUNICATION OF PHARMACEUTICAL COMPANIES: A COMPARATIVE STUDY

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ABSTRACT

The article focuses on analysis of online communication of pharmaceutical companies in the field of CSR. It is based on the fact that there are specific segments in the economy, which are called sensitive sectors. Even though they are often perceived as irresponsible in their nature, there are effective communication tools, which can used to increase positive corporate image. The present study is a part of a larger research that we conducted in the segment of pharmaceutical industry. We used information about companies available on their websites as a research material. We reviewed their availability on websites, but we also reviewed the content on which companies usually focus in terms of social engagement. Our research was supposed to prove that there are considerable differences among companies in our sample. We analyzed (qualitative content analysis) collected data (basic corporate documents like mission, vision and corporate values) using statistical procedures. These documents are crucial to corporate strategies, and often deal with responsibility issues which are then transformed into business strategies, tactics and programs. According to the nature of the research the generalization of the information provided is relatively limited.

KEYWORDS: corporate social responsibility (CSR), pharmaceutical industry, sensitive sector, content analysis.

JEL CLASSIFICATION: M14, M31, Q13.

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INTRODUCTION

Pharmaceutical industry is often considered both very admired and criticized, too (Nussbaum, 2009) and is one of today´s most dynamic industries worth US$300 billion a year. Moreover, a figure is expected to rise up to US$400 billion within three years (World Health Organization, 2016). Pharmaceutical industry has many peculiarities due to its specific character. I has a top sophisticated research, fierce competition and regulations. Although the concept of corporate social responsibility (CSR) can be traced back to 50s pharmaceutical sector began to adopt CSR only about a short time ago. Finally, PR managers soon understood, that it is very important to report on sustainability and responsibility and the number of firms is still increasing (Esteban, 2008). Pharmaceutical industry is often stigmatized due to the character of the production, but CSR seems to be an appropriate tool to secure broader stakeholder support (Hillenbrand, Money, & Ghobadian, 2013). Even though, these firms produce drugs and medicines to improve and maintain human and animal well-being, they are often perceived as "sin" (Grougiou, Dedoulis, & Leventis, 2016), or sensitive industry (Kašparová &

Kunz, 2013), or even stigmatized sector (Vegne, 2012). It is mainly because of their nature and conflict between words and actions. Recent researches focus mainly on the pharmaceutical industry ethics and sincerity nexus (Countess of Frederiksborg & Fort, 2014; Nussbaum, 2009); a customer perception and analysis of attitudes towards CSR activities of pharmaceutical firms (Wang, 2011); CSR as a means of public relation and reputation management (Cheah, Chan, & Chieng, 2007; Stone, Grantham, & Vieira, 2009; Leisinger, 2005); but also advantages of implementing CSR in the pharmaceutical sector (Droppert & Bennett, 2015). Active CSR can lead to stronger corporate brands, employee satisfaction, positive corporate image or teambuilding (Nielsen & Thomsen, 2007; Story & Price, 2006).

1 DEFINITION OF CORPORATE SOCIAL RESPONSIBILITY (CSR)

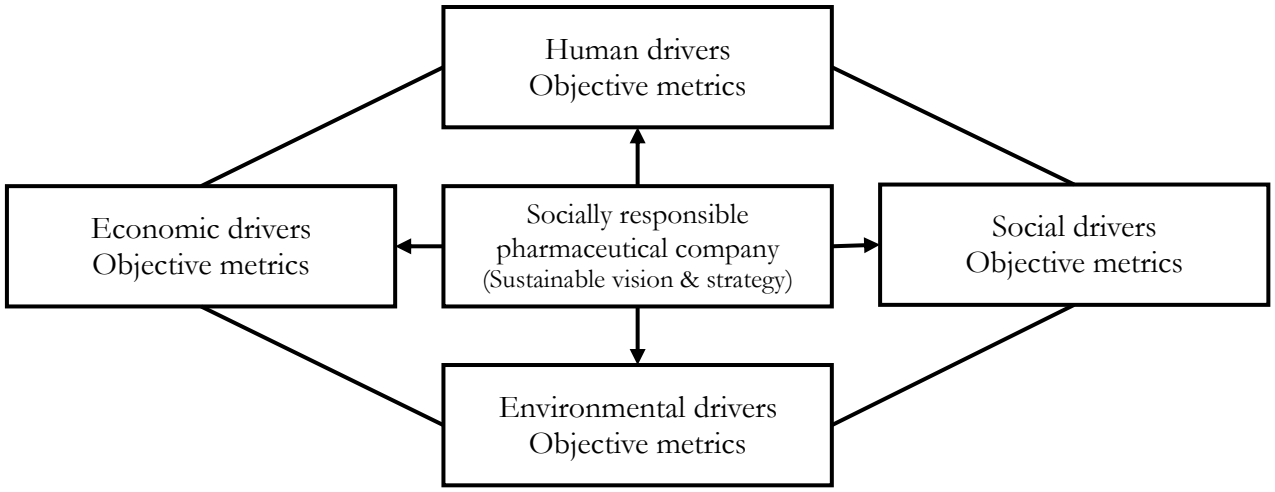
The problem with CSR is that there is an ambiguity of what CSR entails (Džupina & Džupinová, 2016). There is no generally accepted definition of CSR as they usually apply in specific time, country of origin, or to a specific stakeholder group. At least 37 main academic definitions can still be identified emphasizing the responsibility categories and issues (Dahlsrud, 2008). The modern era of CSR is marked by the contribution of H. R. Bowen (Carroll, 1999), who concluded that businessman were obliged to "pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society…" (Bowen, 1953: 6). Later on, Carroll (1979) defined CSR as "The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time." and formulated a four-stage model of corporate social responsibility (Carroll, 1979). Definitions also dealt with the notion of voluntarism and it was believed, that companies should fulfill and enhance socio-economic welfare in 1960s (Frederick, 1960). An important shift occurred in 1970´s when Sethi (1975) started distinguishing among corporate behavior (social obligation), social responsibility, and social responsiveness. During 1990s, new definitions started to deal with internal and external stakeholder and also a new concept of "Triple Bottom Line" was placed (Elkington, 1999). There was also a very complex definition formulated by Vogel (2005), who claimed, that CSR represented "practices that improve the workplace and benefit society in ways that go above and beyond what companies are legally required to do". Nowadays, according to the European Union, CSR is "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (European Commission, 2001).

2 CSR IN PHARMACEUTICAL COMPANIES

There were several researches conducted in pharmaceutical companies, which prove that one of the basic principles of their philosophy is to take care of the interests and needs of the final consumer – those who buy pharmaceutical products but also the whole society (Vitezić, 2010). Firms in all sectors, including pharmaceutical industry, are implementing programs and strategies to improve social welfare, protect the environment and, finally to protect human rights (the social pillar). There is a global increase in the importance and subsequently impact of social responsibility in the pharmaceutical industry (Porter & Kramer, 2002). However, dimensions of economic sustainability also play an important role in overall sustainability as they are vital for further economic sustainability and development in the future (Džupina & Džupinová, 2016). Vitezić (2010) identified a new revised CSR model of pharmaceutical companies (figure 1) which differed from the original version of the sustainability model as it emphasized the human factor (human driving forces) in the pharmaceutical industry. The human pillar consists of such dimensions like improving the quality of life, improving the health culture, prevention and treating of diseases (Vitezić, 2010). CSR in the pharmaceutical industry is not only about altruism but also about comfort (Fort, 2014). According to Bowen (2004, p. 321), a pharmaceutical company wish to be perceived as socially responsible because it is very important for their reputation (Bowen, 2004: 321). Even though pharmaceutical companies are perceived as irresponsible, in fact they can be more responsible than other companies (Minoja, Romano, 2010)

mainly because they play a key role in improving public health, of course while meeting desired profitability (Reisel, Sama, 2003). It is necessary to find a compromise in meeting all stakeholders´ expectations.

Figure 1 **A Model of A Socially Responsible Pharmaceutical Company**



(*Source:* Vitezić, N., 2010: 64)

Aspect of profitability is vitally important for pharmaceutical companies. Otherwise, they would lack financial sources for further research, product development, innovation skills or reduction of investments (Smith, 2003). With regard to CSR, there are several different approaches for pharmaceutical companies how to deal with sustainability issues. We believe that corporate executives should focus on activities, which include more management efforts and skills as well as their know-how in implementing CSR (Esteban, 2008). In last few years, we have noticed, that importance of CSR is increasing within pharmaceutical industry (Leisinger, 2005). Mainly due to a negative publicity, which was triggered by low quality of production and subsequent withdrawal of medicines from the market (Cheah, at al., 2007). Other issues were caused by problems with clinical testing, safety of medical products, advertising and overuse of drugs, corruption, work safety, or even biopiracy (Weyzig, 2004). Usually, managers implement codes of conduct to avoid such a behavior (Seknička & Putnová, 2016). Implementation of appropriate CSR policies can positively influence brand equity (Hoeffler & Keller, 2002), employee satisfaction, goodwill, teambuilding or social development (Nielsen & Thomsen, 2007; Story & Price, 2006). Nowadays, the situation with pharmaceutical companies have changed. Marketing 4.0 helped to introduce new platforms, which can be relatively cheaply used to communicate with stakeholder groups. The main advantages are proactivity and adaptability of the message spread through new channels (Manheim & Pratt, 1986; Tapscott & Tiscoll, 2003; Xiao, et al., 2002).

2.1 Online CSR

Nowadays, we witness the move of marketing communication to digital environment, namely online environment. The number of people with access to new technologies and internet connection is growing rapidly (Esrock & Leichty, 1998). Digital forms of communication changed the way in which brands communicate interact with customers (Benmark & Masri, 2015). The most commonly mentioned advantages of online communication are (1) interactivity (De Pelsmacker, et al., 2010), efficiency (Chaffey & Ellis-Chadwick, 2016) and reliability (Homburg, et al., 2009). Studies on online CSR communication have been conducted for over two decades. Esrock and Leichty (1998) analyzed the impact of online CSR on business image. They concluded that online communication helped to present companies, monitor the interests of stakeholders and that it would lead to a direct dialogue between companies and their audience. Therefore, CSR can be seen as a means of active image management. Companies have the opportunity to differentiate their own brand at a relatively low cost

and communicate about their corporate social responsibility and build credibility through new channels in their communication mix (Kesavan, et al., 2013). Digital environment includes wide range of different channels, through which companies can stay in touch with its important stakeholders (Arrenfeldt, 2015). Thus, increasing the potential number of brand contacts. Today, the Internet is used by public relations professionals to provide information to online public (such as shareholders, customers, suppliers, employees, media, etc.). Gomez and Chalmeta (2011) discussed the main features of CSR on websites, which are presentation features, content features and interactive features. More than half of the companies present their social responsibility through environmental projects, education projects and social engagement (Esrock & Leichty, 1998). Surprisingly, many pharmaceutical companies still do not make an adequate use of the Internet to communicate about CSR (Uzunoglu & Kip, 2014). Ryan (2003) identified two ways in which organizations communicate with interest groups. Firstly, a one-way communication, which is aimed at spreading basic in order to influence the final image. Secondly, a dialogue-based communication, which is vital for the concept of integrated marketing communication

Leichty and Esrock (1998) in their article referred to the findings of Weber (1990), which emphasized the need to tailor reports to individual interest groups (journalists, analysts, opinion leaders and others). Subsequently, they recommended to specify the type and extent of information based on their content, for example financial data, social responsibility, job opportunities or any other aspects that need to be communicated through business communication. New technologies have made tremendous progress in the field of CSR communication. There are many opportunities to communicate social responsibility and target the information depending on the interests of stakeholder groups. In addition, innovative technologies offer opportunities to improve the quality of stakeholder relationships and also more accurate measuring of the communication goals.

3 DATA AND METHODS

The sample was obtained from the list of all pharmaceutical drugs producers registered in the Slovak Republic. Most of them are branches of large multinational corporations, so they are very likely to have web sites developed. For the purpose of the study, we will analyze all 70 companies to cover the whole sector. The research procedure consisted of several steps. First step is based on our previous research, in which, we have gathered a few definitions of CSR through a literature review from 1950s to a so-called millennium era (Džupina, 2012). Subsequently, we identified basic pillars and dimensions of CSR in gathered definitions (as shown in table 1).

Table 1 **Pillars and dimensions of corporate social responsibility**

Stakeholders		• customers • employees • shareholders	
Voluntarism			
Obligations to society			
Pillars of sustainability	*Financial responsibility*	• corporate governance, • profitability, • product quality and safety, • ethical behavior, • CRM, • fight against corruption,	• transparency, • protection of intellectual property, • fair trade, • fair competition, • business and marketing ethics,
	Social responsibility	• health and safety at work, • employment policy, • education of employees, • employing the long term unemployed,	• respecting human rights, • work-life balance • outplacement • humanizing workplace,

		• sponsoring and philanthropy, • corporate volunteering, • anti-discrimination policy, • fight against child labor,	• employee-friendly work environment, • equal working conditions, • partnership with stakeholders
	Environmental responsibility	• "green" corporate policy and culture • reduction of negative impacts on the environment, • "green" production and "green" products (ISO 14000, EMAS, etc.). • saving and protection of natural resources, • "green" investments, and investments to "green" technologies,	

(Source: Džupina, 2012: 65)

Thirdly, we gathered information from online communication focusing on CSR on corporate web sites and in strategic documents. Companies were obtained from the list of pharmaceutical drugs producers registered in the Slovak Republic. A content analysis with an open coding scheme was used to identify all dimensions in corporate missions and visions, possibly corporate values. All the companies were picked up on purpose and all the subcontractors were excluded from the list. We used IBM SPPS 25.0 for statistical evaluation. We have found that our research sample is made up mainly of multinational companies (77.1 %) and only 22.86 % are of Slovak origin. Our sample consisted not only of those companies that produce human drugs, but also veterinary drugs. 11.4 % of companies produce only human drugs, 47.1 % focus on veterinary drugs and 41.4 % produce both. We decided to include all producers registered by the Slovak authorities and included in the database on www.eudragmp.ema.europa.eu website. The main objective of the paper was to determine the main differences between Slovak and foreign companies in our sample. Partially, we tried to answer following research questions:

1. Is there a statistically significant impact of country of origin on CSR activities?
2. Is there a difference between pillars of sustainability between Slovak and foreign companies?
3. Is there a statistically significant difference between Slovak and foreign companies in terms of preferring CSR dimensions?

4 RESULTS AND DISCUSSION

In our research, we focused on issue of differences in the social engagement of Slovak and foreign pharmaceutical companies. It is based on the total number of dimensions in which the companies were involved. The research sample consisted of only those companies, which reported their CSR on web pages. It was 54 (77.1 %) out of the 70 enterprises analyzed. The average number of CSR activities in which companies were involved 10.8.

Table 2 **Geographical differences CSR engagement according to the country of origin**

STATISTICS	SLOVAK COMPANIES	FOREIGN COMPANIES
N	10	44
Mean	5,50	11,95
Std. Error of Mean	1,09	1,17
sStd. Deviation	3,44	7,73
Variance	11,83	59,77
Median	4,00	12,00
Skewness	1,23	,21
Std. Error of Skewness	,69	,36
Kurtosis	1,15	-1,15
Std. Error of Kurtosis	1,33	,70

Range	11	26
Minimum	2	1
Maximum	13	27

(*Source:* Own research processed in IBM SPSS 25.0)

The table shows that the average difference between Slovak (ø = 5.5) and foreign (ø = 11.6) entities is significant in terms of involvement in CSR activities. In order to carry out statistical testing, it is necessary to determine separately if the distribution of the variable is normal in both Slovak and foreign companies. The normality of distribution is necessary for the performance of parametric statistical testing.

Table 3 **Test of normality (Kolmogoro-Smirnov a Shapiro-Wilkoksov test)**

	KOLMOGOROV-SMIRNOV			SHAPIRO-WILK		
	Statistic	df	Sig.	Statistic	df	Sig.
Slovak companies	,269	10	,039	,851	10	,059
Foreign companies	,144	44	,023	,934	44	,015

(*Source:* Own research processed in IBM SPSS 25.0)

In the case of Slovak companies, the deviation from the normal distribution is not statistically significant (p> .005) based on the Shapiro-Wilk test, which has a higher power to detect deviations from the normal distribution (Field, 2009). However, for foreign business companies, the situation is the opposite. The p value (p <.005) indicates that the distribution of CSR dimensions of foreign firms compared to the normal distribution is statistically significant. Thus, we decided to proceed with non-parametric testing to see if the impact of the country of origin is statistically significant.

Table 4 **Impact of country of origin on a number of CSR dimensions**

	N	MEAN RANK	SUM OF RANKS
Slovak companies	16	23,78	380,50
Foreign companies	54	38,97	2104,50
Total	70		

(*Source:* Own research processed in IBM SPSS 25.0)

According to the calculations which were carried, we found that there was a realistic assumption that differences in different levels of enterprise engagement could be caused by the country of origin. Non-parametric statistical tests are based on medians of distributions and therefore have a higher informative value compared to the classical arithmetic mean.

Table 5 **Impact of country of origin on a number of CSR dimensions (Mann-Whitney test)**

Mann-Whitney U	244,500
Wilcoxon W	380,500
Z	-2,642
Asymp. Sig. (2-tailed)	,008

(*Source:* Own research processed in IBM SPSS 25.0);
a. Grouping Variable: Slovak/foreign company

The total number of dimensions that foreign enterprises have included in their CSR policies (Mdn = 12) is statistically significantly different from the Slovak (Mdn = 4), U = 244.50, z = -2.64, p <. 01. We are aware that non-parametric tests are less sensitive than parametric tests. In order to increase the informative value, we have determined the effect of the country of origin, which is based on the formula (1):

$$r = \frac{Z}{\sqrt{N}} \quad (1)$$

Where Z – Z statistics,
N – Number of cases

Based on the defined relationship, we calculated r = -0.36, which implies that the relationship between the country of origin and the CSR activities is explained to about 36%. This is a weak relationship in which there are still 64% chance of other factors influencing the statistical model. Moreover, we also observed differences in the specific pillars that Slovak and foreign companies prefer in their CSR strategies.

Table 6 **Pillars of sustainability**

PILLARS	SLOVAK COMPANIES		FOREIGN COMPANIES	
	N	%	N	%
Economic	10	100,0%	42	95,5%
Social	8	80,0%	35	64,8%
Environmental	6	60,0%	32	59,3%

(*Source:* Own research processed in IBM SPSS 25.0)

As far as sustainability is concerned, the situation is in both Slovak and foreign companies relatively similar. In both groups of companies, the economic pillar of sustainability dominates. The percentages do not have significant information value, as Slovak companies are not sufficiently represented in the sample. However, it simply illustrates what pharmaceutical market looks now. It is highly dominated by foreign corporations. Another problem is that Slovak companies pay less attention to reporting CSR activities.

Another question, which we tried to answer was whether there are statistically significant differences in dimensions, which both Slovak and foreign companies prefer. However, the results could be influenced by a smaller number of Slovak companies (table 7 and table 8).

Table 7 **Dimensions of CSR in Slovak companies**

DIMENSIONS	PILLARS	N	%
Product safety and quality (animal health)	Econ.	8	80,0%
Occupational safety and health	Soc.	6	60,0%
Employee education	Soc.	5	50,0%
Consumer relationships	Econ.	5	50,0%
Ecological production (ISO 14000, 50 000, EMAS, HSEQ)	Ecol.	4	40,0%
Green investments	Ecol.	4	40,0%
Green corporate culture	Ecol.	3	30,0%
Reduction of negative environmental impacts	Ecol.	3	30,0%
Stakeholder partnership	Soc.	3	30,0%
Code of conduct	Econ.	3	30,0%
Natural resources protection	Ecol.	1	10,0%

Waste management	Ecol.	1	10,0%
Low cost environment	Ecol.	1	10,0%
Employment policy	Soc.	1	10,0%
Philanthropy	Soc.	1	10,0%
Anti-discrimination policy	Soc.	1	10,0%
Diversity management	Soc.	1	10,0%
Human rights	Soc.	1	10,0%
Fight against corruption	Econ.	1	10,0%
Transparency	Econ.	1	10,0%
Fair competition	Econ.	1	10,0%
Reduction of water, waste and electricity consumption	Ecol.	0	0,0%
CO_2	Ecol.	0	0,0%
Work-life balance	Soc.	0	0,0%
Friendly corporate culture	Soc.	0	0,0%
Corporate governance	Econ.	0	0,0%
Protection of intellectual property	Econ.	0	0,0%
Marketing ethics	Econ.	0	0,0%

(*Source:* Own research processed in IBM SPSS 25.0)

The interesting thing is that in Slovak companies, there are mainly dimensions of ecological sustainability in the first half of the table compared to foreign entities. In the first half of the dimensions, there are up to 50% of the dimensions related to the environmental orientation of companies, 28.60% of social dimension and only 21.40% dimensions of economical sustainability.

Table 8 **Dimensions of CSR in foreign companies**

DIMENSIONS	PILLARS	N	%
Product safety and quality (animal health)	Econ.	39	88,6%
Consumer relationships	Econ.	33	75,0%
Code of conduct	Econ.	29	65,9%
Stakeholder partnership	Soc.	28	63,6%
Employee education	Soc.	27	61,4%
Occupational safety and health	Soc.	24	54,5%
Philanthropy	Soc.	23	52,3%
Ecological corporate culture	Ecol.	22	50,0%
Reduction of negative environmental impacts	Ecol.	22	50,0%
Reduction of water, waste and electricity consumption	Ecol.	22	50,0%
Employment policy	Soc.	22	50,0%
Natural resources protection	Ecol.	20	45,5%
Transparency	Econ.	20	45,5%
Ecological production (ISO 14000, 50 000, EMAS, HSEQ)	Ecol.	19	43,2%
Waste management	Ecol.	19	43,2%
Anti-discrimination policy	Soc.	19	43,2%
Human rights	Soc.	19	43,2%
Green investments	Ecol.	18	40,9%
Friendly corporate culture	Soc.	18	40,9%
CO_2	Ecol.	16	36,4%
Diversity management	Soc.	16	36,4%
Corporate governance	Econ.	13	29,5%
Protection of intellectual property	Econ.	13	29,5%
Low cost environment	Ecol.	12	27,3%
Fair competition	Econ.	12	27,3%
Marketing ethics	Econ.	11	25,0%

Fight against corruption	Econ.	8	18,2%
Work-life balance	Soc.	7	15,9%

(*Source:* Own research processed in IBM SPSS 25.0)

The situation of foreign companies is different. The first half of the table includes dominantly dimensions of ecological and social sustainability (both 37.50%). The third pillar was the pillar of economic sustainability. We can conclude that there were differences in preferences of the observed dimensions between Slovak and foreign entities. We can assume that this is caused by different approaches of company management, or their different preferences.

In order to determine, whether the differences are statistically significant, we conducted statistical testing, using Mann-Whitney U test. Mann-Whitney U test is a non-parametric test, which is based on a median (middle value of distribution). Thus, median significantly reduces the influence of extreme values.

Table 9 **Dimensions of CSR in Slovak and foreign companies (median)**

	N	MEAN RANK	SUM OF RANKS
Slovak companies	28	14,55	407,50
Foreign companies	28	42,45	1188,50
Total	56		

(*Source:* Own research processed in IBM SPSS 25.0)

The distribution of both independent samples (Slovak and foreign) prove that the differences in the final ranking of Slovak (Mdn = 11.6) and foreign (Mdn = 42.5), U = 1.50, z = -6.43, r = 0.859, p <.01 are statistically significant. The analyzed relationship defines approximately 86% of the differences described. This is a very high dependency. We can therefore assume that the order of dimensions is significantly influenced by the country of origin of the company.

Table 10 **Dimensions of CSR in Slovak and foreign companies (Mann-Whitney test)**

Mann-Whitney U	1,500
Wilcoxon W	407,500
Z	-6,434
Asymp. Sig. (2-tailed)	,000

(*Source:* Own research processed in IBM SPSS 25.0);
a. Grouping Variable: Country of origin

In both Slovak (80.0%) and foreign (88.6%) pharmaceutical companies, there was product safety and quality came at first place. The result can be perceived as a natural consequence as all companies have to meet high quality standards (GMP - Good Manufacturing Practice and European regulations), which are set by the European Agency (EMA) and transposed into national legislation (the Act no. 362/2001 call. on medical products and medical devices, and also manufacturing practice). Other dimensions placed differently in observed sample.

CONCLUSIONS

The pharmaceutical industry is one of the most dynamic industries ever. This is not only because of the economic results achieved (Dukes, 2006), but also because of intensive research and innovations. The nature of the products produced, their focus and their use in the treatment of humans and animals makes of the pharmaceutical industry one of the most controlled and regulated sectors. A significant change is that companies are increasingly engaged in communication (Dumitrescu, 2016) towards stakeholder groups. The pharmaceutical sector has highly diversified interest groups. In this article we dealt with a specific area, namely the involvement of pharmaceutical companies in social responsibility. As early as 1973, Jacoby (1973) concluded that it is necessary to communicate social responsibility in order to eliminate the negative associations of corporations. Online communication, even in communicating CSR activities is an important change caused by the number of people with access to new technologies (Esrock & Leichty, 1998). In terms of sustainability, the situation in both Slovak and foreign companies is relatively similar. In both cases, the economic pillar of sustainability dominates. However, looking at the dimensions of the individual pillars, the situation starts to be different. In Slovak enterprises, thre are mostly dimensions related to the pillar of ecological sustainability of business in the first half of the dimensions. The situation with foreign companies is a bit different. There are both dimensions of ecological and social sustainability placed in the first half. For most Slovak and most foreign pharmaceutical companies, product quality and safety comes first. Overall, Slovak manufacturers are aware of the necessity to communicate CSR through online communication. However, the results of the research cannot be completely generalized, as there are large differences between the pharmaceutical companies, which we alalysed. Large foreign corporations communicate best about CSR and use different means of communication. In case of Slovak and smaller companies we identified significant drawbacks in the way they communicate about their social responsibility. The main problem is that they do not use online communication sufficiently.

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FARM AS A FORM OF SMALL AGRICULTURAL BUSINESS IN RUSSIA: ADVANTAGES AND DISADVANTAGES

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ABSTRACT

Small business in the Russian Federation is actively developing not only in large cities, but also in small rural settlements. This is facilitated by the demand for agricultural products grown in ecologically clean territory. In addition, the Ministry of Agriculture of the Russian Federation is developing support programs for rural entrepreneurs, which allows you to start a business without high costs. This paper discusses farming in detail as the form of small agricultural business. The theoretical part involves an analysis of the essence of the concept of a farm, the legislative aspect, the process of opening and the difference from other forms of management. From a practical point of view, the place of farms in the Russian Federation was determined in the structure of agricultural production. The study was conducted by systemic and monographic methods. As a result, the advantages, disadvantages and prospects for the development of farming in Russia were identified.

KEYWORDS: agriculture, agricultural business, farms, production structure, Russia

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INTRODUCTION

In the modern agricultural sector of Russia, there are many forms of agricultural business, which are based on private ownership, participation in the market, meeting the needs of agricultural consumers, generating income and economic security. One of these forms of farming is farming. (O. Shumakova, 2014) The key problems in the development of farming in Russia remain the complexity of product sales, low profit, feed and fuel prices. For the normal functioning of such an economy, the level of economic efficiency is important, which is provided not only by the farm itself, but also by the level of state support and the influence of natural and climatic conditions (Shvindt E.I., 2014).

The study of peasant (farmer) farms was actively engaged by such scientists as Chayanov A.V., Chelintsev A.N., Shmelev G.I., Nikonov A.A., Kryuchkov V.T., Serova E.V., Sharafanova E .E. and

many others, referring their activities to the types of economic activity of the population. This is evidenced by numerous publications related to this issue (Belova T., 2015).

Russian Agrarian Reform of the 1990s implied the creation of small family farms, which were to replace the already ineffective Soviet collective farms and state farms (Barsukova S., 2016).

According to the results of the 2006 agricultural census, 253.1 thousand farms control only 15.5% of all agricultural territories in Russia versus 59.2 thousand agricultural organizations (21% of them are agricultural holdings), 66.2% of which are controlled all agricultural territories (Federal State Statistic Service, 2018).

10 years later, according to the final data of the 2016 All-Russian Agricultural Census, which were thoroughly analyzed in the 4th quarter of 2018, the number of farms over the past 10 years has decreased by 31% compared to the 2006 agricultural census. At the same time, the average land area of the farm over the past decade has more than doubled - by 57% in 2016. The reason for this reduction is the consolidation of farms and the formation of agricultural holdings (Federal State Statistic Service, 2018, Ministry of Agriculture, 2019).

It is important to note that one of the most important areas for the development of the Russian agro-industrial complex in the context of the policy of import substitution is the increase in demand for high-quality domestic products. In this situation, a special function is performed by small agricultural enterprises, including farms, whose activity allows to intensify the entrepreneurial initiative of rural residents, create new jobs, and develop activities that farms are not always engaged in at present (Borisov D., 2010).

Despite a number of features, changes and factors of doing business over the past decades, farming still remains an attractive form of management. In this article we want to understand what farming represents as a business unit, and what are the arguments for and against farming in Russia.

MATERIALS AND METHODS

The works of domestic and foreign scientists, agricultural economists, researchers and agricultural consultants were studied for a deep and detailed investigation of the problem. For analysis, comparison and conclusions, we used a combination of statistical data both separately for farms and for agriculture as a whole in Russia, agricultural census data for several periods, federal laws on the regulation of small agricultural enterprises (Enina D., 2018).
The initial data were investigated by methods of systemic and monographic analysis.
From the point of view of a theoretical study, the data obtained were processed by abstracting, analyzing and synthesizing. Studying the problems of farms among other forms of small agricultural business is based on the method of deduction. Identification of advantages, disadvantages, or problems and positive trends by induction.
From the point of view of practical research, the results were analyzed by empirical methods: monitoring the process and the results of farm activities over a number of years, description - recording information on the functioning of farms for a certain period of time: using the results of an agricultural census for decades, the opinions of farmers, consultants and specialists in management issues, measurement - the number of farms operating in a particular field of agriculture in a certain IRS time, their productivity, the number of comparison - comparison of the base year previous to identify trends. (Derunova, E., 2012)
On the basis of the results obtained, clear conclusions were formulated on the problem under study.

THEORETICAL BASIS

Peasant farms in the Russian Federation engaged in the production of agricultural products are included in the second sphere of the agro-industrial complex (N. Kovolenko, 2017).

The main activity of farms is traditionally the production of agricultural products, with the successful development of the farm, processing can be organized. But farms can engage in other activities that are not prohibited by law, including those not related to the production of agricultural products. Therefore, in farming, agricultural production can be successfully combined with other types of activities based on the use of local resources: serving tourists, raising wild animals and providing services to hunters, developing a variety of crafts, consumer services, etc. Due to the difficult situation in the economy at present most of the farms combine the production of agricultural products with the provision of construction, transportation services and the like (Kiselev S., 2010).

An enterprise is called a farm if at least 70% of the total profit is derived from agricultural products (Petrovchuk L. A, 2015).

According to the Federal Law of June 11, 2003 N 74-FL (as amended on June 23, 2014) "On Peasant (Farm) Farming" in the Russian Federation, a Peasant farm is an association of citizens related by kinship (spouses, their parents, children, brothers, sisters, grandchildren, as well as grandfathers and grandmothers of each spouse, but not more than three families, and (or) citizens who are not related to the head of the farm. The maximum number of such citizens may not exceed five people with joint ownership of property and jointly They are involved in production and other economic activities (production, processing, storage, transportation and sale of agricultural products) based on their personal participation (Federal Law of June 11, 2003 N 74-FL RF). An enterprise is created by a group of people or a single person (individual entrepreneur), without or with the formation of a legal entity (the formation of a legal entity is regulated by Article 86.1 of the 4th chapter of the Civil Code of Russia).

A farm as a legal entity is a voluntary association of citizens on the basis of membership for joint production or other economic activities in the field of agriculture, based on their personal participation and association of property contributions by members of the farm.

The main provisions on which farm activity in Russia is based on the Federal Law of 11.06.2003 N 74-FL:

- The unification of citizens must occur strictly on the principles of voluntariness;
- The personal participation of each member of the economy in its activities is assumed;
- A citizen has the right to be a member of only one farm with the status of a legal entity;
- In the case of collection of debt from the farm, the sale of its property should be carried out at public auction.
- All members of the holding are responsible for each other - if one cannot fulfill his obligations, the others must do so (Federal Law of June 11, 2003 N 74-FL RF).

For the purpose of coordinating their business activities, representing and protecting common property interests, farms can create associations in the form of associations or unions of farms on territorial and sectoral grounds, and can also be founders, participants, members of commercial and non-profit organizations.

Thus, in Russia there are three types of farms: an individual entrepreneur, who is the head of the farm or acting alone, the farm as a contractual association and as the legal form of a legal entity (Petrovchuk L., 2015).

Not only the private interests of farm members are ensured in carrying out entrepreneurial activities within the framework of a farm. The revival of agriculture, the provision of agricultural products on the commodity market is able to solve problems of national importance, thereby ensuring the public interests of the state and society (Elkina O., 2010).

PRACTICAL BASIS

Farms were developed in the process of reforming the agriculture of the Russian Federation, (Kovolenko N, 2017). By the end of 2016, there were 174.8 thousand units of farms, they occupied 22.1 million hectares of sown area, which amounted to about 27.7 % of sown area in farms of all categories in the country. In general, the share of farms and households accounted for 16.5% of the

total agricultural land area - 57.6 million hectares. The average farm land is 226 hectares (All-Russian Agricultural Census 2016).
In recent years, the process of creating farms has slowed down somewhat and their agricultural activity has decreased. So, if in 1991 there were 49 thousand farms, in 1997 - 280.1 thousand, in 2005 - 257.4 thousand, in 2012 - 255.4 thousand, and in 2016 - 174.8 thousand (Census 2016, Federal State Statistic Service, 2018).

18 541 units of farms and 853.9 thousand individual entrepreneurs were registered during 2018. Along with the creation of new farms, there is a process of their collapse. In 1993, 14 thousand households ceased to exist, in 1997 - 12.9 thousand, and in 2014 compared to 2012, the number decreased by 14.4 thousand households, in 2018 21 ceased operations. 7 thousand households (Federal tax service of Russia, 2018). In 2013, small businesses accounted for 52% of gross agricultural output, including potato - 86.9%, vegetables - 82.9%, milk 53.7% and meat - 33.1%. In value terms, the volume of agricultural production from farms and personal subsidiary plots amounted to 1943.7 billion roubles (45.8 billion euros at the exchange rate of 2013). Gross harvests of grain and leguminous crops for the period 2005-2015 increased by 33.5%, sunflower - by 35%, vegetables - by 32%, potatoes - by 10.5%. Thus, the growth rate of production in the agricultural sector over the past 10 years is 2.3 times higher than in the industry. The second sector of the agro-industrial complex produces almost 45% of final products. It involves more than 65% of fixed assets and 56% of the number of employees (Kovolenko N., 2017).
Let's consider in more detail the structure of agricultural production in Russia by categories of organization.

Table 1 **The production structure of basic crop products by type of agricultural producers, %**

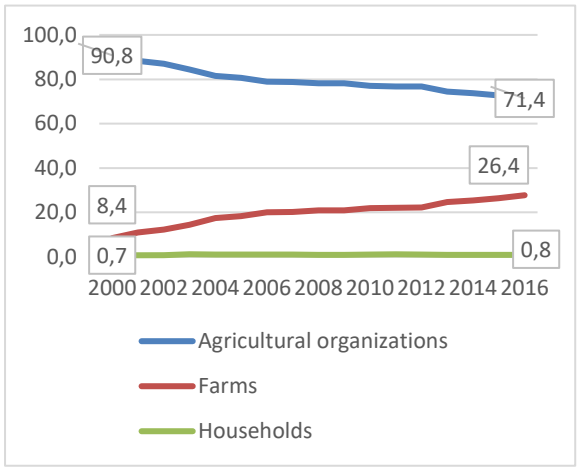
Year	Cereals and Legumes			Sunflower			Potatoes			Vegetables		
	Agricultural organizations	Farms	Households	Agricultural organizations	Farms	Households	Agricultural organizations	Farms	Households	Agricultural organizations	Farms	Households
1990	99.7	0.0	0.3	98.6	0.0	1.4	33.9	0.0	66.1	69.9	0.0	30.1
1995	94.4	4.7	0.9	86.3	12.3	1.4	9.2	0.9	89.9	25.3	1.3	73.4
2000	90.8	8.4	0.8	84.3	14.5	1.2	7.5	1.3	91.2	22.9	2.4	74.7
2005	80.6	18.3	1.1	72.1	27.4	0.5	8.4	2.8	88.8	18.7	6.9	74.4
2010	77.1	21.9	1.0	73.0	26.4	0.6	10.5	5.5	84.0	17.1	11.4	71.5
2015	72.7	26.3	1.0	70.3	29.3	0.4	13.8	8.6	77.6	17.9	15.1	67.0
2016	71.1	28.0	0.9	67.2	32.4	0.4	13.5	8.5	78.0	18.7	14.6	66.7

(Source: Federal State Statistic Service, 2018)

Table 1 shows the data on crop production by farm categories from the beginning of the agrarian reform in 1990 to the results of the 2016 agricultural census. As far as large agricultural organizations are concerned, there is a tendency to decrease production for all types of crop production during the study period, this is due to outdated agricultural machinery, high fuel prices, a drop in labour productivity, as fewer and fewer people work in agriculture, importing products into the non-seasonal period still remains at a significant level, the measures of state support provided for by the Agricultural Development Program 2013-2020 are starting to apply wider just in the last 3 years. Farms and individual entrepreneurs are increasing production from year to year. The state is actively developing supporting programs for small agricultural business, such as a grant to support young farmers, family livestock farms, a grant for initiatives and the like. In households, the growth of potato and vegetable

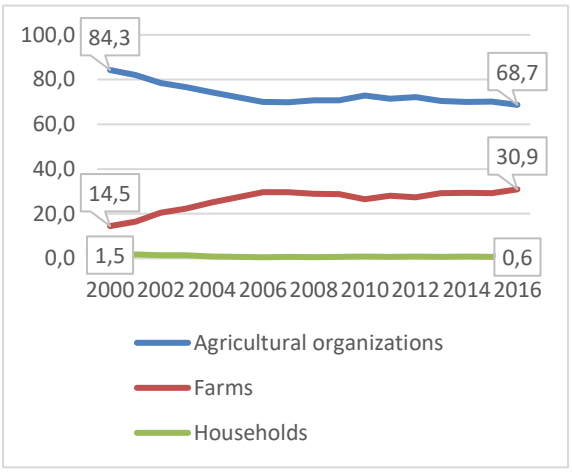
production was especially marked in comparison with 1990 and 1995, but further to the base year there was a decrease in the productivity of potatoes and vegetables, which is associated with a change in the way of life in rural areas.

Figure 1 **Share in the production of cereals and leguminous plants, %**



(*Source:* Federal State Statistic Service, 2018)

Figure 2 **Share in the production of sunflowers, %**



(*Source:* Federal State Statistic Service, 2018)

Figures 1 and 2 show the dynamics of the share of cereals, legumes and sunflower production. The main producers of cereals and legumes in Russia are agricultural organizations, followed by farms, and over 16 years the dynamics of production increased by 18%. The main producer of sunflower is also agricultural organizations, the second place is taken by farms, in which production also increased by 16.4% over the study period. In the national economies of grain, legumes and sunflower, no more than 1.5% is produced for the study period.

Figure 3 **Share in the production of potato, %**

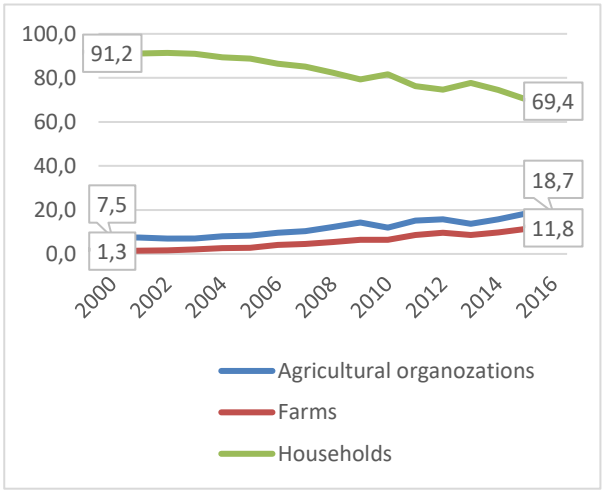
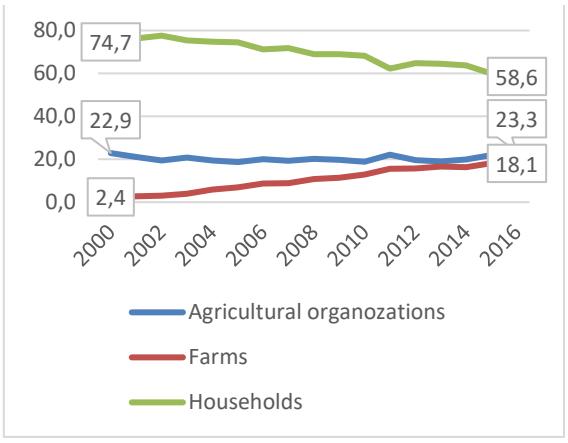


Figure 4 **Share in the production of vegetables, %**



(*Source:* Federal State Statistic Service, 2018)

(*Source:* Federal State Statistic Service, 2018)

Figures 3 and 4 show the dynamics of the share of production of potatoes and vegetables. The main producers of potatoes are households, but during the study period, production from year to year is reduced and decreased by 21.8%. Agricultural organizations are in the second place, where the growth

is 11.2% for the study period, farms are in third place, where the growth of potato production is 10.5%. The main producer of vegetables is also the national economy, over the study period, the share of vegetable production decreased by 16.1%. Agricultural organizations with a production share of up to 23% are in the second place in terms of productivity. Farms are in last place, the productivity of vegetables on farms is growing from year to year, there is an increase of 15.7% for the study period.
Next, we consider the structure of livestock production by categories of producers.

Table 2 **The production structure of basic livestock products by type of agricultural producers, %**

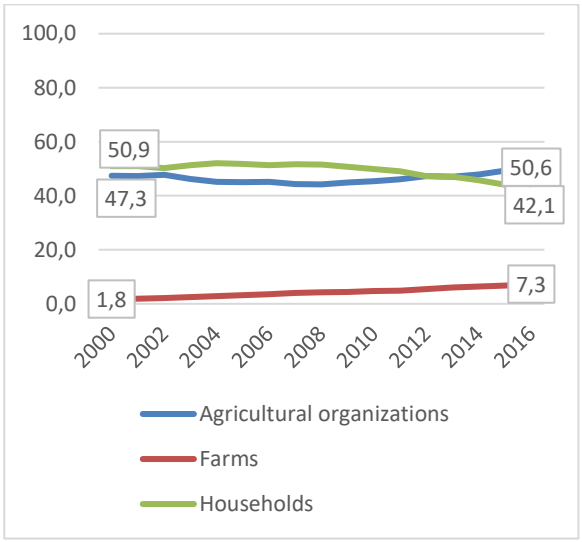
	1990	2000	2006	2010	2016
Cattle					
Agricultural organization	86,8	43	32,7	31,9	32,6
Farms	0,01	1,79	4,7	7,9	8,4
Households	13,2	55,2	62,6	60,2	58,9
Milk production					
Agricultural organization	76,2	47,3	44,9	47,8	49
Farms	0	1,76	4,7	6,6	7,0
Households	23,8	50,9	50,4	45,6	44
Pork production					
Agricultural organization	65,8	27,6	52,7	78,2	80,5
Farms	0,01	2,23	3	1,4	1,3
Households	34,2	70,2	44,3	20,4	18,2
Poultry					
Agricultural organization	69,9	65,4	88,4	91,5	91,9
Farms	-	0,39	0,6	1,1	1,0
Households	30,1	34,2	11	7,4	7,1
Sheep and goat					
Agricultural organization	57,9	10,8	8,9	7,9	7,8
Farms		4,08	18,6	21,2	21,7
Households	42,1	85,1	72,5	70,9	70,6

(Source: Federal State Statistic Service, 2018)

Table 2 shows data on types of livestock products by category of producers in the study period from the beginning of the agrarian reform to the last agricultural census. There is a decreasing cattle production by agricultural organizations, there is a slight growth trend of 8.3% on farms, in contrast to households, where the growth at the end of the study period is 20.2%. Milk production in agricultural organizations also decreased, on the farms there was a slight increase, and in households the increase was almost 2 times. There was an increase for the study period in agricultural organizations involved in pork production, the average share of production does not exceed 1.6% on farms, there is a decrease in the share of production by 16% in households. Agricultural organizations are successful in poultry production, the growth was 22% in the households, the share of production does not exceed 1% on farms, the share of production decreased by 23% over the study period. The production of sheep and

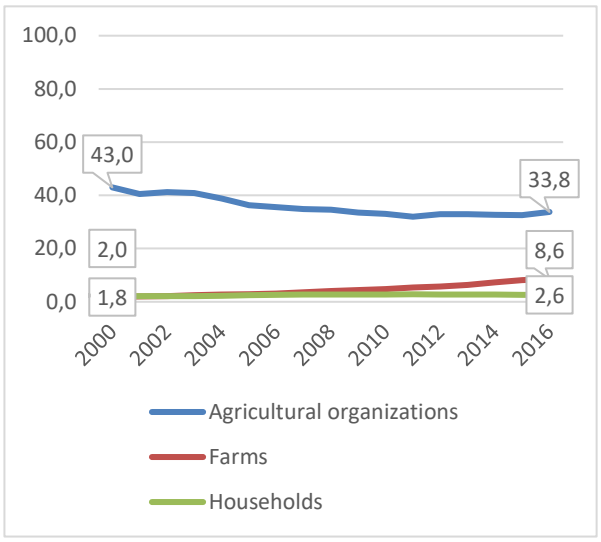
goats among agricultural organizations decreased by 50% for the study period, farms produce an average of no more than 20% of sheep and goat's production, and in households there is an increase in production by 28.5%.

Figure 5 **Share in the milk production, %**



(*Source:* Federal State Statistic Service, 2018)

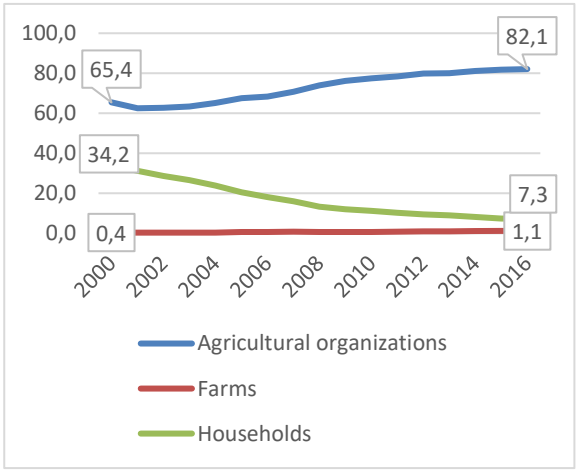
Figure 6 **Share in the cattle production, %**



(*Source:* Federal State Statistic Service, 2018)

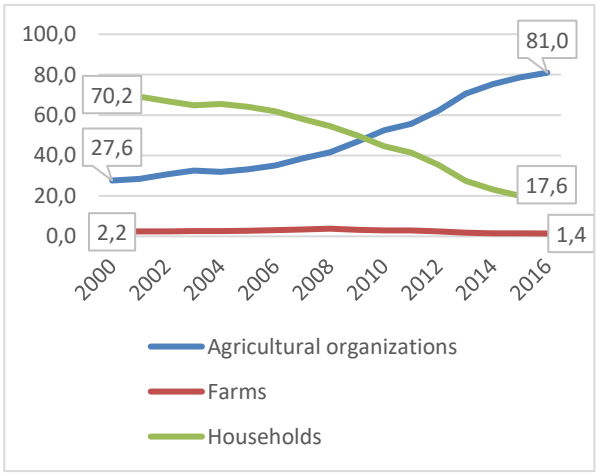
Figures 5 and 6 show the dynamics of milk and cattle production. Agricultural organizations are the first in milk production, although at the beginning of the study period the leaders were households. Farms occupy 7.3% of production at the end of the period. Agricultural organizations are the leaders in cattle production, but their productivity decreased by 9.2% over the study period. Farms ranked second in milk production, with growth of 6.6%. The increase was less than 1% in households.

Figure 6 **Share in the poultry production, %**



(*Source:* Federal State Statistic Service, 2018)

Figure 7 **Share in the pork production, %**

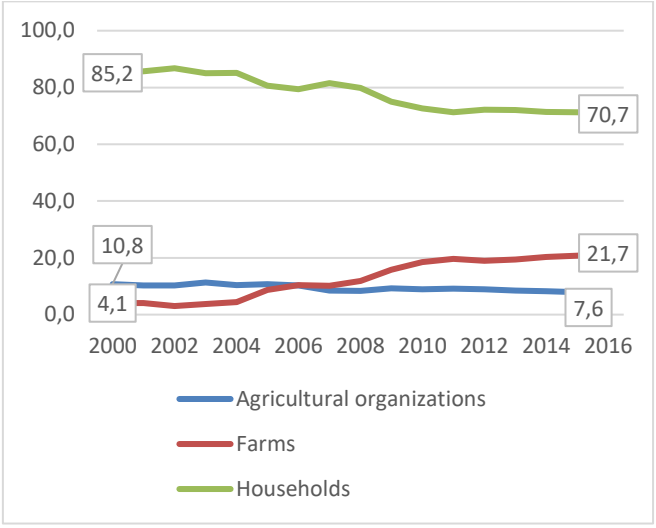


(*Source:* Federal State Statistic Service, 2018)

Figures 7 and 8 show the dynamics of poultry and pork production. The leader in poultry production is agricultural organizations with an increase of 16.7%. Poultry production decreased by 26.9% in households. Farms produce no more than 1.1% of poultry products. The main producers in pork production are agricultural organizations, during the study period, productivity increased by 53.4%,

households fell to second place, but the share of production fell by 52.6%, and farms produce no more than 2.2% of production.

Figure 7 **Share in the production of sheep and coat, %**



(Source: Federal State Statistic Service, 2018)

Figure 9 shows the dynamics of sheep and goat production. The leading producers are households, but in the study period, the share of production decreased by 14.5%, farms have been the second largest producer of sheep and goats in recent years, their share has grown by 17.6%, while the share of production in agricultural organizations has decreased by 3.2%.
Based on the analysis of the agricultural production structure, the predominant form of agricultural business is agricultural organizations, farms are on the second place, the most productive areas in agriculture are the production of cereals, legumes and sunflowers, as well as the production of sheep and goats.
Thus, the structure of agricultural production in Russia was completely analysed for all categories of agricultural producers.

CONCLUSION

After a detailed analysis, the following advantages and disadvantages of farming as a form of small agricultural business can be distinguished.
Advantages:

- Personal choice of how to arrange an economy: individual entrepreneur or legal entity
- All members of the farm are equal owners of property
- To create such a form of management there are no requirements for the minimum authorized capital (for ordinary legal entities - from 140 euros).
- Registered farmers are more likely to receive state or municipal subsidies.
- Farms can receive land for activities on preferential treatments.
- Significantly less accountability volume compared to other forms of agricultural business.

Disadvantages:

- The ability to attract only 5 people to the association who are not relatives. - For all members of the economy, personal participation in agricultural work is mandatory, which makes it difficult to attract new members and even more investors.

- In case of financial problems at the farm, its members will have to bear personal responsibility, including at the expense of private property, because the legislation on farms has not been worked out enough, many areas are not regulated.

Prospects:
As the analysis of the structure of production has shown, at the moment there are few promising areas of crop production and animal husbandry for opening a farm. Farms occupy leading positions in none of the elements of the production structure unlike agricultural organizations and households. Moreover, at present, it is rather difficult to call Russian agriculture modern and prosperous. Despite the constant high demand for food products among the country population, the organization of production and access to the market require significant costs. This form of small agricultural business is suitable for large families living in rural areas. It makes it possible to rely on state aid, including the allocation of land and at the same time does not burden the owners with paper bureaucracy.

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DETERMINING THE FACTORS OF THE EMPLOYEES' INTENTION TO STAY OR LEAVE IN THE SLOVAK'S SMES

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ABSTRACT

A large number of Slovak small and medium enterprises (SMEs) are confronted with often-leaving employees. This situation can have a devastating effect; thus, the ability to predict and early detect the employees' intention to stay or leave to another organisation provides them with a competitive advantage.
Paper aims to determine how employer attractiveness influences the employees' intention to stay or leave to another organisation. The online questionnaire survey was conducted to collect data during the September and October 2019 among 357 Slovak SMEs' employees. The employees' values were described by EmpAt's five dimensions scale. Binary logistic regression was used to predict which employer attractiveness factor leads to an intention to stay in the organisation within the next 6 months. Results show that to the employee's decision to stay working for the organisation contribute Application Value (AV Odds Ratio=2.53), followed by Economic Value (EV Odds Ratio=2.36), Interest Value (IV Odds Ratio=2.23), and Social Value (SV Odds Ratio=1.48). We did not find statistically significant associations between Development Value (DV) and the employees' intention to stay or leave (ISL).
This study makes several contributions to extant human resource management literature. First, it extends the research on employer attractiveness and employee retention. Second, it expands the knowledge about the predictors of employees' intention to stay in organisations. On the managerial level, it recommends that the employees' intent to stay or leave should be regularly measured.

KEYWORDS: employer attractiveness, retention, prediction, SMEs

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INTRODUCTION

Many organisations around the world increasingly focus on the concept of an attractive employer, striving to differentiate themselves from competitors (Mihalache et al., 2010), and sustained competitive advantage to attain economic profit and to survive in an increasingly global and competitive marketplace (Sivertzen et al. 2013). This process is becoming even more critical in small and medium

enterprises (SMEs) as they play a vital role in job creation (Koisova et al., 2017). Moreover, they are recognized as one of the main contributors to economic, development and employment growth (Cepel et al., 2018; Dahnil et al., 2014; Kljucnikov et al., 2016; Mura, 2019).

However, a large number of companies face with the fact that employees will, for any reason, leave the company. The employees' fluctuation can be a problem if it is too high or too frequent, and also if the company is left by talented employees in which invested significant funds (Pavlović, 2018). As it is the unemployment rate at its minimum in many developed countries (Mihalache et al., 2010), the severity of the problem is highlighted. The limited supply of highly skilled candidates, combined with high workforce mobility, results in considerable hiring, training, and developing costs (Dabirian et al., 2019). The company's internal potential is most strongly influenced by the potential and commitment of its employees that can be directly influenced by the individual activities of human resources management (Stachová et al., 2019). Ability to predict and early detect the employees' intention to stay or leave to another organisation provide the company with a sustainable competitive advantage.

Previous studies have mainly focused on the influence of employer attractiveness from the view of the recruitment or in other words how to attract better employees (Alnıaçık & Alnıaçık, 2012; Altmann & Suess, 2015; Ha & Luan, 2018; Germano et al., 2016). Our approach differs in term to focus on prediction the intention to stay or leave based on employer attractiveness, thereby covering the existing research gap. The paper aims to determine how employer attractiveness influences the employees' intention to stay or leave to another organisation.

This article contains four sections, besides this introduction. In the literature review, the generational issue, the concepts of employer attractiveness and employee retention are reviewed and discussed. Next, the methodological procedures are presented. Then, results are shown and discussed. Afterwards, limitations and suggestions for further studies are presented in conclusion.

1 THEORETICAL BASES

This section reviews and discusses the literature considered relevant for the proposed research – the studies on the concepts of employer attractiveness and employees' retention.

1.1 Employer attractiveness

Attracting and retaining high-quality human resources has always been highly considered as a decisive factor that impacts directly on an organisation's success (Ha & Luan, 2018). Organisations thus have always cared about what their employees think and say about them. Collective employee opinions shape not only the loyalty, engagement, and retention of existing workers, but also how firms are seen publicly (Dabirian et al., 2017). The literature offers us diverse definitions of the employer attractiveness (EA) or also how firms are seen publicly. Nevertheless, what they all have in common are the advantages and satisfaction one finds in working for a company (Berthon et al., 2005; Slåtten, Lien, & Svenkerud, 2019).

EA can be defined as the envisioned benefits that a potential employee could get in working for a specific organisation (Berthon et al., 2005). It can be operationalized as an attitude or affect toward viewing an organisation "as a desirable entity with which to initiate some relationship" (Aiman-Smith et al., 2001) and thus refers to the degree to which potential applicants favourably perceive organisations as good places to work (Jiang et al., 2011; Rynes et al., 1991). We can, therefore, distinguish between two EA views (Uen et al., 2011). In an organisational context, organisational prestige could be considered as a component of EA, implying that the organisation probably has a reputation as an excellent employer. At the individual level, organisational attractiveness refers to applicants who would like to work for the organisation and exert a great deal of effort to work for it (Highhouse et al., 2003). However, we must emphasize that it is not sufficient for the employer to be attractive only during the recruitment phase, but EA must be continuously worked on so that the company becomes a continuously recognized as an attractive employer in the labour market (Breaugh & Starke, 2000;

Germano et al., 2016). Therefore, EA influences not only the recruitment processes but also the retention of employees (Helm, 2013) and the intentions to stay in the workplace should be measured separately, along with intentions to choose the workplace (Jiang et al., 2011).

Employer attractiveness has been operationalized and repeatedly measured in different ways. Lievens et al. (2001) investigated which of four objective organisational characteristics (organisation size, level of internationalisation, pay mix, and level of centralisation) determine the attractiveness of organisations for prospective applicants and the degree to which the Big Five personality factors moderate the effects of some of these organisational attributes. Turban (2001) investigate relationships of recruitment activities, organisational attributes, familiarity with the firm, and the social context with a firm's attractiveness as an employer on college campuses. Highhouse et al. (2003) measured attraction to organisations with the three components of organisational attraction (i.e., attractiveness, intentions, and prestige) that have received the most attention in research on organisation choice. Berthon et al. (2005) have extended three-dimensional employer brand structure proposed by Ambler and Barrow (1996) to a five-factor scale for measurement of employer attractiveness (EmpAt) from potential applicants' perspective, comprising Interest value, Social value, Economic value, Development value and Application value. The five items measurement scale was also used by Kausel and Slaughter (2011) to examine whether the use of narrow personality facets, such as trust (under the Big Five trait agreeableness), assertiveness (under extraversion), and imagination (under openness to experience) enhances the prediction of attraction. Bakanauskiene et al. (2017) data analysis revealed that 19 employer attributes are positively linked to organisational attractiveness.

However, we use the scale developed by Berthon et al. (2005) because it has been more frequently used in subsequent studies (Alnıaçık & Alnıaçık, 2012; Arachchige & Robertson, 2011; Germano et al., 2016; Sivertzen et al., 2013). The EmpAt's five dimensions described the extent of what the organisation offers its employees the following values. Interest Value (IV): working in an environment that tests employees' ability or determination, with innovative working practices and climate full of creativity. Social Value (SV): pleasant social and interpersonal environment with a good relationship with colleagues and superiors. Application Value (AV): opportunity to apply knowledge, to teach others, to give back to society. Economic Value (EV): excellent promotion opportunities within the organisation, above-average basic salary, an attractive overall compensation package. Development Value (DV): provides recognition, self-worth and confidence, the development of skills and career-enhancing experiences (Bakanauskiene et al., 2017; Berthon et al., 2005; Dabirian et al., 2017; Dabirian et al., 2019; Germano et al., 2016).

1.2 Employees retention

Keeping talented individuals have become some of the most crucial objective of human resource management (HRM) practices (Govaerts et al., 2011; Hiltrop, 1999; Pittino et al., 2016). Employee retention is defined as an effort to create and foster surroundings that encourage modern-day personnel to remain employed using policies and practices in place that address their diverse desires (Peter et al., 2019). Respectively, which are used to prevent employees from leaving and to maximize their time of working for the organisation (Cascio, 2019; Kossivi et al., 2016). The reasons why organisations have to deal with employees' retention are as follows. To hire an employee cost a lot of money and time. Retention boosts the organisation's productivity and increases the unity among the staff members (Rakhra, 2018). Often the individuals who leave take proprietary knowledge that is impossible to replace. When employees depart, they often open the door for others to leave the organisation. High employee turnover can have a devastating effect on a company, especially if the lost employees are high performers (Mattox et al., 2005).

Published studies examine a wide variety of factors with an impact on retention. Arasanmi and Krishna (2019) found that perceived organisational support (POS) significantly influence employees' organisational commitment (OC) as a predictor of employee retention. Matogolo et al. (2018) found that reward strategy and people orientedness emerged as significant predictors of retention. Drawing on data from three different managerial respondents in 275 companies based in China, Yu et al. (2019) findings demonstrate the precedential effect of IMO on corporate performance through employees'

organisational commitment and retention framework. The Mutsuddi and Sinha (2017) study had revealed that employee intention to stay is influenced by social factors as co-worker relations, and trust & control mutuality. Alzyoud et al. (2019) found a significant relationship between leaders' emotional intelligence and employee retention which can induce a sense of belongingness leading to enhance job satisfaction which further results in harnessing employee retention. Asimah (2018) study revealed that six factors (Job Insecurity, Job Dissatisfaction, Lack of Organisational Commitment, Poor Working Condition, Better Job Option, Job Stress and Unfair Treatments) were statistically significant in the prediction of employee turnover. Joubert et al. (2017) touched on the importance of competitive incentives and rewards in the attraction and retention of employees.

2 AIM AND METHODOLOGICAL BASES

In this section, we will discuss our research method with regard to construct measurement, data collection and reliability check.

The research aim was to determine how employer attractiveness influences the employees' intention to stay or leave to another organisation. The research utilised a quantitative design. We used an online questionnaire survey to collect data during the September and October 2019 among the Slovak SMEs' employees.

Random sampling technique was chosen to extract a representative sample for the population. In the first step, we choose the SMEs with non-zero income and number of employees in the year 2018 from the company database. In the second step, we randomly choose a specific company. In the third step, we asked one of the employees of the selected company to fill out a questionnaire. We used a stratified random sample to choose the company. The distinguishing criterion was the affiliation to SME categories, namely whether it was a micro (N=37,439), small (N=5,690) or medium-sized enterprise (N=1,266). There were 357 usable responses where 301 respondents were from micro (84.33 per cent), 46 from small (12.82 per cent), and 10 from medium-sized enterprise (2.85 per cent). In the sample, 52.94 per cent were women (n=189), 37.62 per cent were men (n=168), 41.74 per cent belonged to the Generation X (n=149), 29.97 per to the Generation Y (n=106), and 28.29 per cent to the Generation Z (101).

We measured EmpAt Scale (Berthon et al., 2005) using a seven-point Likert scale ranging from 1 (to a very little extent) to 7 (to a very great extent). Subscale components were calculated as the means of the individual responses because it is a more stable and unbiased estimate than are responses to any single item in the component. The instrument was chosen because it has already been employed by various international studies (Alnıaçık & Alnıaçık, 2012; Ha & Luan, 2018; Germano et al., 2016; Reis et al., 2017; Sivertzen et al., 2013). Intention to stay or leave to another organisation was measured with the question "Are you consider staying or leave to another organisation within the next 6 months?" Some control variables were also included. Additional questions addressing information on gender, generation group, and managerial level affiliation were added.

As the current study was conducted in a Slovak speaking context, and the original measures of the studied constructs were in English, the survey instrument was translated from English into Slovak. Before administration of the survey, the questionnaires were distributed to researchers and several doctoral students. Some revisions in translation were made based on their feedback.

In order to reduce the potential influence of common method bias, data were collected at four time periods.

Table 1 presents the means, standard deviations and appropriate Cronbach's α coefficient for the summated total score (0.8636) and any subscale scores (Interest Value (IV) =0.7631; Social Value (SV)=0.7846; Application Value AV=0.8818; Economic Value EV=0.7588; Development Value DV=0.). The Cronbach's alphas above 0.7 indicate acceptable internal consistency of the constructs.

Table 1 **Survey's results**

COMPONENTS	ITEM MEAN (SEVEN-POINT LIKERT SCALE)	STD DEV	CRONBACH ALPHA
Interest Value (IV)	4.67	0.77	0.8042
IV01_Working in a vibrant/challenging environment	4.71	0.99	
IV02_Innovative employer – novel work practices/forward-thinking	4.64	1.06	
IV03_The organisation both values and makes use of your creativity	4.62	1.02	
IV04_The organisation produces high-quality products and services	4.64	1.03	
IV05_The organisation produces innovative products and services	4.72	1.06	
Social Value (SV)	4.41	0.89	0.8463
SV01_Having a good relationship with your colleagues	4.39	0.86	
SV02_Having a good relationship with your superiors	4.44	1.09	
SV03_Supportive and encouraging colleagues	4.43	1.16	
SV04_Happy work environment	4.36	1.15	
Application Value (AV)	4.39	0.76	0.7859
AV01_Humanitarian organisation – gives back to society	4.34	0.88	
AV02_Opportunity to apply what was learned in college/university	4.57	1.10	
AV03_Opportunity to teach others what you have learned	4.33	0.97	
AV04_Acceptance and belonging	4.33	1.07	
AV05_The organisation is customer-orientated	4.38	1.16	
Economic Value (EV)	4.41	1.16	0.8727
EV01_Good promotion opportunities within the organisation	4.41	1.17	
EV02_An above average basic salary	4.34	1.30	
EV03_An attractive overall compensation package	4.48	1.42	
Development Value (DV)	4.45	0.81	0.7456
DV01_Feeling more self-confident as a result of working for a particular organisation	4.41	0.80	
DV02_Feeling good about yourself as a result of working for a particular organisation	4.45	1.25	
DV03_Gaining career-enhancing experience	4.50	1.24	
Entire Set			0.8863
Are you consider staying or leave to another organisation within the next 6 months? (ISL)	**n**	**% of Total**	
Leave	125	35.01%	
Stay	232	64.99%	

(*Source:* Authors calculations)

3 RESULTS

The goal of the building model is to estimate the likelihood that dummy binary variable is either "stay" (1) or "leave" (0) and thus which factors more lead to intention to stay in the organisation within the next six months.

To build the model, we started with all possible predictors as effects. The first model's lack of fit report showed that the model fits the data well (0.8693). As Table 2 presents, there are four significant parameters (IV=0.0006, SV= 0.0286, AV= 0.0009, EV= 0.0003) and one non-significant parameter (DV=0.1806). The misclassification rate of the first model also proved that only 15.41 per cent responses are not the observed category.

In the second model, we decided to exclude the non-significant parameter (DV). The lack of fit report showed that the model also fit the data well (0.8047) and the misclassification rate of the second model is better than the first model since only 14.29 per cent responses are not the observed category.

Table 2 **Building models - lack of fit report, the misclassification rate and parameter estimates**

FIRST MODEL	**ESTIMATE**	**STD ERROR**	**CHISQUARE**	**PROB>CHISQ**
Intercept	-12.6845447	1.670350302	57.67	<.0001
Interest Value	0.768849238	0.222881536	11.9	0.0006
Social Value	0.389105693	0.177809903	4.79	0.0286
Application Value	0.837345059	0.253176722	10.94	0.0009
Economic Value	0.71912028	0.200495037	12.86	0.0003
Development Value	0.363235847	0.271269814	1.79	0.1806
	DF	**-LogLikelihood**	**ChiSquare**	**Prob>ChiSq**
Lack of Fit	350	160.24378	320.4876	0.8693
Misclassification Rate ∑ (ϱ[j]≠ϱMax)/n				0.1541
Second model	**Estimate**	**Std Error**	**ChiSquare**	**Prob>ChiSq**
Intercept	-12.24457226	1.630965801	56.36	<.0001
Interest Value	0.800442254	0.221557834	13.05	0.0003
Social Value	0.392446061	0.17729809	4.9	0.0269
Application Value	0.9299242	0.243358226	14.6	0.0001
Economic Value	0.858328006	0.172163383	24.86	<.0001
	DF	**-LogLikelihood**	**ChiSquare**	**Prob>ChiSq**
Lack of Fit	345	161.14837	322.2967	0.8047
Misclassification Rate ∑ (ϱ[j]≠ϱMax)/n				0.1429

(*Source:* Authors calculations)

Table 3 **Predictors unit odds ratios**

TERM	**ODDS RATIO**	**LOWER 95%**	**UPPER 95%**	**RECIPROCAL**
Interest Value (IV)	2.226525401	1.442239162	3.43730464	0.44913029
Social Value (SV)	1.480598002	1.045973668	2.095818	0.675402776
Application Value (AV)	2.53431707	1.572946861	4.08326764	0.394583619
Economic Value (EV)	2.359212805	1.683532016	3.30607616	0.423870199

(Source: Authors calculations)

We also calculate log-odds, which are presented in Table 3 to predict which employer attractiveness factor leads to an intention to stay in the organisation within the next 6 months. Because of the higher the log-odds are, the more likely the reference event is, we can conclude that to the employee's decision to stay working for the organisation contribute AV (Odds Ratio=2.53), followed by EV (Odds Ratio=2.36), IV (Odds Ratio=2.23), and SV (Odds Ratio=1.48). The odds ratios can be interpreted as follows for each additional point in AV the probability of the event (staying in the organisation within the next 6 months) increases about 92.82 per cent (=ln 2.53), provided that the other predictors are unchanged.)

4 CONCLUSION

Employee turnover is a problem for organisations and is one of the challenges facing human resource managers (Asimah, 2018). The good recruitment program can provide a positive influence on increasing employee commitment, productivity and the quality of work, including performance. The relationship of employee retention on performance is exceedingly complex (Sutanto & Kurniawan, 2016).

The paper objective was to answer the questions of whether employer attractiveness influences the employees' intention to stay or leave to another organisation and also whether it is possible to identify factors with a significant effect on the intention to stay or leave. Results showed that to the employee's decision to stay working for the organisation contribute Application Value (AV Odds Ratio=2.53), followed by Economic Value (EV Odds Ratio=2.36), Interest Value (IV Odds Ratio=2.23), and Social Value (SV Odds Ratio=1.48). These results are consistent with the researches presented in the literature review. Surprisingly, though the Slovak economy focuses on cheap labour (Habánik et al., 2019), EV was even the second most important factor decisive for intention to stay. We also did not find statistically significant associations between Development Value (DV) and the employees' intention to stay or leave (ISL). The result may indicate that the bulk of businesses do not take seriously internal marketing, and thus employees are not identified with the companies they are work for.

This study makes several contributions to extant human resource management literature. First, it extends the research on employer attractiveness and employee retention. Second, it expands the knowledge about the predictors of employees' intention to stay in organisations.

It is recommended that the organisation regularly measures employees' intent to stay or leave to ensure that employees are still aware of the benefits of the company's current policies. The organisation should also identify promptly any problems that cause employee dissatisfaction and try to resolve them before employees are aware of them.

The current paper provides several implications for theory and practice, but some limitations should be discussed. The self-reported questionnaire could cause response bias from a misunderstanding of what a proper measurement is to social-desirability bias, where the respondent wants to 'look good' in the survey, even if the survey is anonymous (Rosenman et al., 2011). Additionally, it uses a sample without the sole traders (they do not have an obligation to disclose financial statements in the Slovak Republic, which, in some way, influences the generalizability of the results.

It would be interesting to investigate how the intention to stay or leave differs according to gender, managerial level and Hofstede's cultural dimensions theory. Further research should perform a more granular data analysis and determine which value propositions individual respondents praise and complain about. Finally, we encourage future studies to address why employees are not identified with the companies they are work for.

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EFFECT OF THE UNIVERSITY IN THE ENTREPRENEURIAL INTENTION OF FEMALE STUDENTS

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ABSTRACT

Many researchers have studied gender differences in the entrepreneurial intention of students by analyzing the influence of several intrinsic and extrinsic factors on the antecedents of entrepreneurial intention. Fewer researchers have analyzed the influence of the university's environment and support system on the precursors of the entrepreneurial intention of students in general and of female students in particular. This study aims to fill that gap by analyzing the influence of the university's environment and support system on the precursors of entrepreneurial intention of female students at a university in Atlantic Canada. Findings of this study confirm that two precursors of entrepreneurial intention—i.e., attitude toward behavior and perceived behavioral control—mediate the effects of the university's environment and support system on the entrepreneurial intention of female students. They also confirm that the university's environment and support system comprises three distinct but interrelated dimensions, namely entrepreneurship training, start-up support, and entrepreneurial milieu. Results of this study also suggest that the university's environment and support system has a positive relation with the perceived behavioral control of female students. However, findings of this study also suggest that the university's environment and support system has a positive but negligible influence on the attitude toward the behavior of the same students. The outcomes of this study will help the university assess the efficacy of its innovation and entrepreneurship initiatives in promoting entrepreneurial activities. By understanding its entrepreneurial efficacy, the institution will be better equipped to raise the perceptions of venture feasibility and desirability, thus increasing students' perceptions of opportunity.

KEYWORDS: entrepreneurial intention; university environment and support system; theory of planned behavior; female student entrepreneurs; regional development.

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INTRODUCTION

In this study, the authors aim to understand the influence of the university's *environment and support system* (ESS) on the precursors (antecedents) of the *entrepreneurial intention* (EI) of female students. The notion of entrepreneurship has fundamentally changed over the past few decades. Today, entrepreneurship is no longer regarded as being serendipitous and individual but rather social and organized, to the point that it is now well-established that entrepreneurship is a set of skills that can be taught and learned (Jacob, Lundqvist, & Hellsmark, 2003). Consequently, universities around the world have been incorporating entrepreneurship education (EE) into their curricula to prepare student entrepreneurs for their start-up journey (Kirby, Guerrero, & Urbano, 2011). Researchers have been studying the impact of EE programs on the precursors of the EI of students for several years (Fayolle, Gailly, Lassas-Clerc, & Lassas-Clerc, 2006; Rae & Woodier-Harris, 2013; Rauch & Hulsink, 2015; Sánchez, 2011; Souitaris, Zerbinati, & Al-Laham, 2007). In addition, there is growing evidence in the literature that the university's ESS can motivate students to consider an entrepreneurial career (Bazan et al., 2019; Krueger & Carsrud, 1993; Lee & Wong, 2004; Trivedi, 2016, 2017; Tubbs & Ekeberg, 1991). The university's ESS comprises its entire *entrepreneurial ecosystem*, i.e., support mechanisms such as intellectual property protection, technology transfer, start-up business couching, and business incubation services, all of which are necessary for entrepreneurial activity (Audretsch, 2014; Etzkowitz, 2003, 2014; Kraaijenbrink, Bos, & Groen, 2010; McGowan, van der Sijde, & Kirby, 2008; Tijssen, 2006; Urbano & Guerrero, 2013). Many universities have been playing an active role in the development of regional entrepreneurial activities via the commercialization of university knowledge through spin-off companies founded by student entrepreneurs (Bray & Lee, 2000; Etzkowitz, 2003; Poole & Robertson, 2003; Steffensen, Rogers, & Speakman, 2000; Wright, Lockett, Clarysse, & Binks, 2006). Many scholars argue that this phenomenon is part of a second "academic revolution" in which universities adopt a third mission of economic development (knowledge capitalization) in addition to research (knowledge extension) and teaching (knowledge preservation) (Etzkowitz, 1998; Gür, Oylumlu, & Kunday, 2017; Kirby, 2006a, 2006b; O'Shea, Allen, Morse, O'Gorman, & Roche, 2007; Zaharia & Gibert, 2005).

As the only university in the province, the institution subject of this study has a special obligation to the people of the province. Since its founding, the university has played an integral role in the cultural, social, health, and economic development of the province. Lately, it has been transforming itself to become an *entrepreneurial university* in order to play an even more prominent role in the socioeconomic development strategies of the province. Among the recent initiatives are efforts to promote innovation and entrepreneurship among female students. Consequently, there is a need for systematic approaches to evaluate the impact of these initiatives at the student level. The authors are interested in understanding the various motivational factors related to the university's entrepreneurial ecosystem that may shape the EI of female students (Tolentino, Sedoglavich, Lu, Garcia, & Restubog, 2014). The authors argue that the university can play a key role in the EI of female students by providing adequate support mechanisms to help them in translating their ideas into viable business models that may further expand into successful ventures (Trivedi, 2016). The outcomes of this study will help the university assess the efficacy of its innovation and entrepreneurship initiatives in promoting entrepreneurial activities on campus (Varamäki et al., 2013). By understanding its entrepreneurial efficacy, the institution will be better equipped to raise the perceptions of venture feasibility and desirability, thus increasing students' perceptions of opportunity (Krueger, Reilly, & Carsrud, 2000).

The authors divided the remainder of the paper into five sections as follows. *Literature Review* describes the state of the knowledge in EI of female university students gathered by rigorous quantitative studies. *Conceptual Model and Proposed Hypotheses* illustrates the theory-based conceptual model and proposed hypotheses tested through structural equation modelling (SEM) using IBM Amos v26. *Data Analysis* describes the curation and analysis of the data and verification of the applicability of the overall study approach. *Results and Discussion* examines the implications of the data analysis for Memorial University and provides recommendations for further consideration. The paper ends with the *Conclusion* and possible future work.

1 LITERATURE REVIEW

Many researchers have studied gender differences in EI by analyzing the influence of several intrinsic and extrinsic factors on the antecedents of EI (Arora & Jain, 2019; Arshad, Farooq, Sultana, & Farooq, 2016; Bagheri & Lope Pihie, 2014; Dabic, Daim, Bayraktaroglu, Novak, & Basic, 2012). Fewer researchers have analyzed the influence of the university's ESS on the precursors of the EI of students in general and of female students in particular. The authors attempted to fill that gap by taking advantage of the fact that most researchers who have analyzed gender differences in EI did so by studying the EI of male and female university students as proxies for the general population. Furthermore, the authors were only interested in studies conducted by researchers who formulated research hypotheses tested by rigorous quantitative methods of analysis. The vast majority of these researchers conducted their quantitative studies by framing their EI models based on Ajzen's (1987, 1991) *theory of planned behaviour* (TPB). Studies based on the TPB aimed at understanding the precursors of intention, i.e., *attitude towards behavior* (ATB), *subjective social norm* (SSN), and *perceived behavioral control* (PBC) (Bird, 1988; Katz & Gartner, 1988; Krueger et al., 2000; Macmillan & Katz, 1992). **Chyba! Nenalezen zdroj odkazů.** in the Appendix provides a tabulated synthesis of results across studies on gender differences in EI that empirically tested research hypotheses. In what follows, the authors provide a narrative synthesis describing the evolution of the knowledge on gender differences in the EI of university students.

Mueller & Dato-On (2008) investigated gender-role orientation as a possible determinant of the differences in the PBC of students in Midwestern USA. Their results indicate that the relationship between gender-role orientation and PBC is complex and multifaceted, and it seems to depend on the stage of the new venture creation process. Gupta et al. (2008) examined the impact of implicit and explicit activation of gender stereotypes on the EI of students in Midwestern USA. Their results support the hypothesis that gender stereotypes play a role in the EI of male and female students. Wilson et al. (2009) explored the effect of gender, EE, and PBC on EI and entrepreneurial behaviour by studying sample groups in three different stages of education and career development: middle and high school students, MBA students, and early career adults in the USA. Their results show a stronger positive influence of EE in female students than in male students. Yordanova & Tarrazon (2010) explored gender effects on EI and identified the factors that may account for the gender gap in the EI of students in Bulgaria. Their results show that female students have lower EI than male students and that PBC fully mediates EI in both groups, while SSN and ATB partially mediate the EI of female students. Phipps (2012) investigated the relationship between creativity and the EI of female students in Southern USA, and attempted to determine whether political skills moderate the relationship. Their findings reveal that there is a positive relationship between creativity and EI but that it does not moderate the relationship between the creativity and EI of female students. Dabic et al. (2012) conducted a study to understand gender differences in EI as measured by PBC and ATB, and to explore gender differences in perceptions of EE needs of students in 10 different countries. Their results confirm that female students are less willing to start their own businesses compared to male students. They also found significant gender differences in terms of the PBC and ATB of starting a new business but fewer gender differences in terms of EI.

In subsequent studies, Haus et al. (2013) studied the relationship between gender and EI as mediated by the ATB, SSN, and PBC of students and non-students in Europe and the USA. Their results suggest that gender differences in EI and the motivational constructs are small and cannot sufficiently explain the substantial differences in actually starting a business. Shneor et al. (2013) studied the effect of the interaction between culture and gender on the formation of the EI of students in Norway and Turkey. Their results show that, regardless of national background, male students exhibit higher levels of EI, PBC, and SSN than female students do. Karimi et al. (2013) explored the effects of gender and role models on the EI of students in Iran. Their results show that entrepreneurial role models indirectly influence EI through its antecedents in the TPB. Their study also found no gender differences in the relationship between PBC and EI, but found that gender affects the ATB antecedent. Ashkezari & Ashkezari (2013) identified and studied the barriers to female entrepreneurship from the perspective of female students in Iran. Their results show that there are seven barriers to entrepreneurship in the familial, scientific-academic, educational, personal, financial, cultural-social, and legal dimensions that affect female students and that among these, the cultural-social dimension is the most important.

Afterwards, Maes et al. (2014) studied the diverse factors that predict gender differences in the EI of students in Belgium. Their results indicate that ATB and PBC (but not SSN) mediate the effect of gender on the EI of female students. Zhang et al. (2014) attempted to identify the relationship between EE, prior entrepreneurial exposure, ATB and PBC, and the EI of students in China. Their results show positive interactive effects by gender, university type, and study major on the relationship between EE and EI. Dempsey & Jennings (2014) investigated whether the four major factors known to contribute to self-efficacy (enactive mastery, vicarious experience, physiological arousal, and verbal persuasion) can help account for observed differences in the PBC of students in Canada. Their findings demonstrate that the lower PBC of female students was attributable to their lower level of prior entrepreneurial experience, and their higher likelihood of receiving failure feedback due to their actual performance on an opportunity evaluation task. Amentie & Negash (2015) investigated the ATB of female students in Ethiopia. They found that there are major barriers that negatively affect female students when considering entrepreneurship as a possible carrier choice. Zeffane (2015) examined the impact of trust, personality, and risk-taking on the EI of students and actual entrepreneurs in the United Arab Emirates. Their results found that female students are less inclined to become entrepreneurs and are less likely to take risk. They also found that female students are less trusting than male students are and that this affects their EI.

Successively, Westhead & Solesvik (2016) explored the links between the participation in EE, alertness and risk-taking skills, and the EI of students in the Ukraine. They also considered the potential moderating effect of gender and participation in EE. Their results show that female students were significantly less likely to report high EI. However, female students citing the alertness skill were more likely to report high EI than non-EE female students. Furthermore, female EE students citing the risk perception skill reported lower EI. Sahban et al. (2016) investigated the influence of social support on the EI of students in Indonesia. They also tested whether gender can moderate the relationship between social support and EI. Their results reveal that there is a positive relationship between the social support system and EI, and that there is a difference between male and female students in terms of EI. Hussain & Hashim (2016) assessed gender differences in the EI of students in Pakistan. Their results reveal that ATB and PBC were the significant predictors of the EI of female students. Shirokova et al. (2016) scrutinized the intention-action gap among student entrepreneurs attributed to contextual factors, i.e., individual (family entrepreneurial background, age, gender) and environmental characteristics (university environment, uncertainty avoidance), affecting the translation of EI into entrepreneurial actions. Their findings demonstrate that the positive association between EI and the scope of start-up activities is reinforced or weakened by factors such as the student's family entrepreneurial background (reinforcing), age (reinforcing), gender (link for males is stronger), university entrepreneurial environment (reinforcing) and general country uncertainty avoidance (weakening). Arshad et al. (2016) examined the differentiated effects of PBC and SSN on the EI of

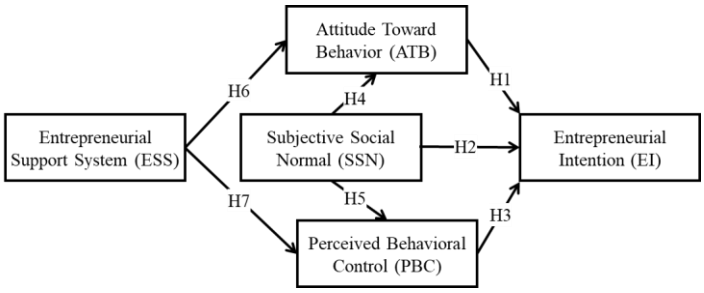
students in South Asia. Their study considered the mediation of ATB by integrating the framework of *gender schema theory* with the TPB. Their results show that PBC has a greater effect on the ATB of male students than female students do, but that SSN has a greater effect on the ATB of female students than male students do. Villasana et al. (2016) explored gender differences in the four attributes associated with entrepreneurship (creativity, problem management, risk management, and self-confidence) of students in Latin America and Spain. Their results suggest that self-confidence is present at the same level in both groups, while male students seem to score higher in terms of the other three attributes associated with entrepreneurship.

More recently, Perez-Quintana et al. (2017) explored the relationship between biological sex, gender-role orientation (GRO), and the EI of students in Barcelona (Spain). Their findings show that GRO is a better predictor of EI than biological sex. Their results confirm the relationship between masculine and androgynous GRO with EI, whereas there is also evidence of feminine GRO when they considered only female students. Srivastava & Misra (2017) studied the antecedents of the EI of female students in India. Their study confirms the role of social valuation as an important antecedent of EI among female students. They also identified that EE is an important element that affects the EI of female students. Feder & Nițu-Antonie (2017) tried to establish the antecedents of the EI of students benefiting from EE and/or entrepreneurial role models in Romania. Their findings suggest that EE and behavioural characteristics are direct predictors of EI. Their results also show that gender identity is a moderator, differentiating the direct effects of EE and behavioural characteristics on EI. Ferri et al. (2018) investigated the EI of female students in Italy. Their findings suggest that SSN and PBC affect the EI of female students. Their work provides a new model that helps to understand the EI of students based on gender role. Ojewumi et al. (2018) examined the influence of gender and PBC on the EI of students in Nigeria. Their results show no significant differences in the EI of male and female students. Arora & Jain (2019) compared the EI of male and female students of public and private management institutes in India. Their results indicate that there are differences in the level of EI between male and female students.

2 CONCEPTUAL MODEL AND PROPOSED HYPOTHESES

Based on works by Liñán & Chen (2009) and Trivedi (2016, 2017), Bazan et al. (2019) designed a study to understand the influence of the university's ESS on the precursors of the EI of students. It has been argued in the literature that entrepreneurial behaviour, e.g., starting a new business, is intentional and thus best predicted by the intention towards the behaviour, not by attitudes, beliefs, personality, or demographics (Ajzen, 1991, 2001; Delmar & Davidsson, 2000; Fayolle et al., 2006; Kolvereid, 1996b; Krueger & Carsrud, 1993; Krueger et al., 2000). The study by Bazan et al. (2019) followed a cognitive approach (Baron, 1998, 2004; Shaver & Scott, 1991) by applying a customized EI model based on the TPB (Ajzen, 1991). The TPB predicts that the more favourable the ATB and SSN, and the greater the PBC, the stronger the person's intention to perform the behaviour (Kolvereid, 1996b). The TPB has become one of the most widely used psychological theories for explaining and predicting human behaviour in general (Kolvereid, 1996b; Tkachev & Kolvereid, 1999; Varamäki et al., 2013). The models based on this theory have been successfully used in the entrepreneurial context to predict the specific behaviour of starting a new business (Kautonen, van Gelderen, & Fink, 2015; Kautonen, van Gelderen, & Tornikoski, 2013; Kolvereid, 1996b, 1996a; Krueger & Carsrud, 1993). The authors adopted and adapted the model of EI by Bazan et al. (2019) depicted in Figure 1. This model specifies and describes the governing rules and measurement properties of the observed variables.

Figure 1 Conceptual model of entrepreneurial intention



(Source: own)

Additional evidence in the literature suggests that contextual and situational factors affect EI by influencing the precursors of intention such as ATB and PBC as well as the general motivation to behave (Ajzen, 1987; Boyd & Vozikis, 1994; Krueger & Carsrud, 1993; Krueger et al., 2000; Lee & Wong, 2004; Tubbs & Ekeberg, 1991). There is growing evidence that the university context has some influence on the EI of students (Bae, Qian, Miao, & Fiet, 2014; Kraaijenbrink et al., 2010; Kraaijenbrink & Wijnhoven, 2008; Liñán, Urbano, & Guerrero, 2011; Sesen, 2013; Shirokova et al., 2016; Trivedi, 2016; Turker & Selcuk, 2009; Zhang et al., 2014). It is clear that the university's ESS can help in developing entrepreneurial competencies of students and motivating them to consider an entrepreneurial career (Franke & Lüthje, 2004; Henderson & Robertson, 1999; Kraaijenbrink et al., 2010; Peterman & Kennedy, 2003). Trivedi (2016) has identified three motivational factors of the university's ESS that might influence the precursors of EI. He suggests that targeted cognitive and non-cognitive supports—and to a lesser extent the general educational support—seemed to have a positive correlation with the precursors of EI. The authors posit that the influence of the university's ESS is comprised of three different, interrelated dimensions: *entrepreneurship training* (ET), e.g., courses, workshops; *start-up support* (SS), e.g., mentorship, seed funding; and *entrepreneurial milieu* (EM), e.g., entrepreneurial environment. Among the three precursors of intention, ATB and PBC seem to be the ones that could be most affected by the university's ESS (Shirokova et al., 2016). Please see Bazan et al., (2019) and the references therein for a more detailed discussion of the extant literature on the influence of the university's ESS on the precursors of EI.

Chyba! Nenalezen zdroj odkazů. shows the eight hypotheses formulated in this study. First, hypothesis 0 corresponds to the assumption that the university's ESS has three different dimensions that influence the EI of students through the mediation of the most proximal precursors of intention. Second, hypotheses 1 to 3 correspond to the traditional intention model based on the TPB. Third, hypotheses 4 and 5 would explain the internal configuration of the precursors of intention. Lastly, hypotheses 6 and 7 posit that the university's ESS would influence the ATB and the PBC of students.

Table 1 Hypotheses of the study

Hypothesis
H0: ESS comprises three different dimensions: ET, SS, and EM
H1: ATB positively influences EI and it is lower for female students as compared to male students
H2: SSN positively influences EI and it is lower for female students as compared to male students
H3: PBC positively influences EI and it is lower for female students as compared to male students
H4: SSN positively influences ATB and it is lower for female students as compared to male students
H5: SSN positively influences PBC and it is lower for female students as compared to male students
H6: ESS positively influences ATB and it is lower for female students as compared to male students
H7: ESS positively influences PBC and it is lower for female students as compared to male students

(Source: own)

3 DATA ANALYSIS

3.1 Data Screening

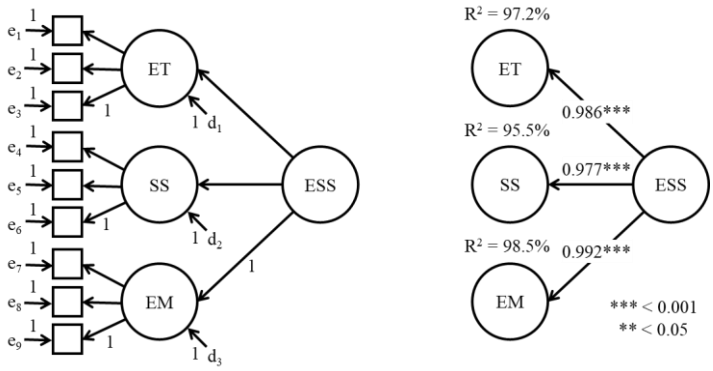
This study uses secondary data collected during a previous study by Bazan et al. (2019) on the influence of the university's ESS on the EI of students. The original dataset contained 479 responses with an average completion rate of 95%. The authors first analysed missing data on rows (individual responses) and detected 57 rows with missing values. From these, 38 rows were missing more than one value (> 5 percent) while 19 rows were missing one value (< 5 percent). Therefore, the authors deleted the rows with more than one missing value and kept the rows with only one missing value for possible imputation. The authors then proceeded to look for "unengaged" respondents. These respondents completed the survey but were not paying attention or were not interested in giving a candid response. Based on the standard deviation of responses and the time it took them to complete the survey (much less than the average time), eight rows by unengaged respondents were detected and deleted from the table. The authors then extracted the rows corresponding to respondents who self-identified as "male" or "female" and disregarded the rows corresponding to respondents who "preferred not to answer."

The authors used Little's Missing Completely at Random (MCAR) to assess whether the aforementioned missing values were missing at random. Little's MCAR test returned: Chi-Square = 487.613, DF = 525, Sig. = 0.877, i.e., the test failed to reject the null hypothesis that the values were missing completely at random. Thus, the authors imputed the missing values using the expectation maximization (EM) algorithm for each category of measurement variables, separately. Following, the authors proceeded to test the data for normality and outliers by calculating skewness and kurtosis. The largest skewness and kurtosis were –1.270 and 1.277, respectively. Thus, all the values for skewness and kurtosis fell between the ±2 threshold and the distributions are considered 'fairly normal' (Cohen, Cohen, West, & Aiken, 2003; George & Mallery, 2010). The authors used the Mahalanobis distance to identify influential multivariate outliers. There were a few rows with larger than average Mahalanobis distances that appeared to be outliers. To discern whether these entries were outliers, the authors compared their Mahalanobis distance with a chi-square distribution with the same degrees of freedom represented by the number of independent measurement variables. There were 26 rows with probability $p < 0.001$ that were deleted from the dataset (Aguinis, Gottfredson, & Joo, 2013). The final dataset is composed of 396 rows corresponding to 211 male students and 185 female students.

3.2 Second-Order Model

The second-order model in **Chyba! Nenalezen zdroj odkazů.** (left) represents the assumption that the common underlying, higher order construct ESS can account for the seemingly distinct but related constructs: ET, SS, and EM. The authors used second-order confirmatory factor analysis (CFA) to discern whether the university's ESS has indeed three different dimensions (sub-constructs). The overall fit of the CFA model is very good by the following fit parameters (FP): chi-square, *p*-value; RMSEA (root mean square error of approximation); GFI (goodness of fit index); AGFI (adjusted goodness of fit index); CFI (comparative fit index); TLI (Tucker-Lewis index); IFI (incremental fit index); chi-square/*df*; and PNFI (parsimonious normed fit index). **Chyba! Nenalezen zdroj odkazů.** shows the model fit summary for the second-order model along with the recommended thresholds. Furthermore, the unstandardized regression weights are all significant by the critical ratio test (> ±1.96, $p < 0.001$) and the standardized regression weights are high. These results confirm that the ESS construct loads well on its three sub-constructs, and that the contributions of ESS on its three dimensions are good. Thus, the results support the assumptions that ESS consists of three sub-constructs: ET, SS, and EM.

Figure 2 Left: ESS is second-order construct while ET, SS and EM are first-order constructs. Right: Results of second-order factor analysis



(Source: own)

Table 2 Model fit summary for the second-order model

Measure	Thresholds	ESS
Absolute fit:		
Chi-square, *p*-value	low but sensitive to DOF, > 0.05	188.358, < 0.05
RMSEA (LO 90, HI 90)	< 0.05 good, 0.05-0.10 moderate, > 0.10 bad	0.071 (0.059, 0.083)
GFI	> 0.95 great, > 0.90 good	0.938
Incremental fit:		
AGFI	> 0.90 great, > 0.80 good	0.883
CFI	> 0.95 great, > 0.90 traditional, 0.80 permissible	0.980
TLI	> 0.90	0.967
IFI	> 0.90	0.980
Parsimonious fit:		
Chi-square/*df*	< 3 good, < 5 permissible	2.990
PNFI	> 0.50	0.582

(Source: own)

3.3 Mediating Variables

This study assumes that the university's ESS does not influence EI directly but rather indirectly through the more proximal antecedents ATB and PBC. To assess whether ATB and PBC mediate the effect of ESS on EI, the authors first assessed whether ESS and the mediators have (individually) a direct and significant effect on EI. The reason for testing direct effects separately is twofold (Judd & Kenny, 2015). First, for mediation to occur, all direct effects that constitute an indirect effect have to be substantial. Second, mediation can be inconsistent, i.e., there could be suppression of effects (Maassen & Bakker, 2001; MacKinnon, Krull, & Lockwood, 2000). Furthermore, the knowledge of the relative importance of a specific mediator can further refine the understanding of the pathways through which an initial variable exerts an effect on an outcome (Ledermann & Macho, 2015). The individual models for the isolated effect of ESS, ATB, and PBC (individually) on EI fit the data very well by the FP. **Chyba! Nenalezen zdroj odkazů.** shows that the standardized regression weight between each antecedent and EI is significant at the $p < 0.001$ level.

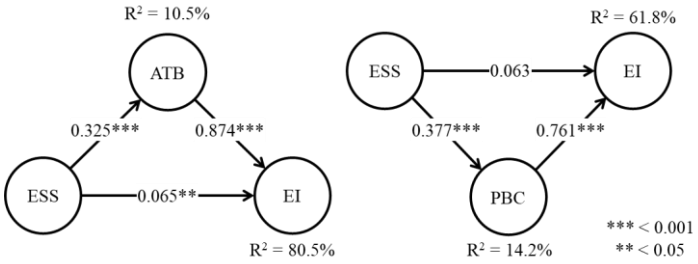
Table 3 Isolated effects on EI by individual factors

Lone effect	ESS	ATB	PBC
EI ←	0.349***	0.895***	0.784***

(Source: own)

Afterwards, the authors introduced the mediators individually in the basic ESS-EI model to assess whether their individual influence has a significant effect on EI and whether it reduces the effect of ESS on EI. If the lone effect of ESS on EI reduces but is still significant, the mediator exerts *partial mediation*. However, if the direct effect reduces and is no longer significant, the mediator exercises *complete mediation*. The mediation models for the direct effect of ESS on EI coupled with the indirect effect through the mediators fit the data very well by the FP. When the mediator ATB is introduced, this mediator substantially reduced the effect of ESS on EI but remained significant at the $p < 0.05$ level. Thus, ATB exerts only partial mediation of ESS on EI. However, when the authors introduced the mediator PBC, the mediator greatly reduced the effects of ESS on EI and was no longer significant at any level. Thus, PBC exerts complete mediation of ESS on EI. **Chyba! Nenalezen zdroj odkazů.** depicts the effects of the mediators ATB and PBC once they were included in the model. **Chyba! Nenalezen zdroj odkazů.** shows the indirect effects of ESS on EI that flow through the mediators. The indirect effects of ESS on EI are statistically significant at the $p < 0.05$ level, confirming that the combined effect of ATB and PBC completely and significantly mediate the effect of ESS on EI. Note: this study used bootstrapping with 1000 samples and 95% bias-corrected confidence level to calculate standard errors (Bollen & Stine, 2006; Preacher & Hayes, 2008) for cases in which the maximum likelihood (ML) standard errors were not available.

Figure 3 Standardized regression weights after introducing the mediators ATB and PBC in the ESS-EI model



(Source: own)

Table 4 Standardized indirect effects of ESS on EI

Path	Effect	Lower	Upper	SE	P
ESS → ATB → EI	0.284	0.196	0.385	0.049	0.001
ESS → PBC → EI	0.287	0.186	0.372	0.047	0.003

(Source: own)

3.4 Measurement Model

The model in this study assumes that relations exist between the EI of students and each of the proximal precursors of intention: ATB, SSN, and PBC. In addition, the model suggests that relations exist between SSN and both ATB and PBC, and between both ATB and PBC and the university's ESS. This study expressed these relations in the model in terms of hypotheses H1-H7. The discussion on

mediation above suggests that indirect relations also exist between ESS and EI. Before testing the hypotheses with second-order SEM, the authors defined a measurement model to verify that the 36 measurement variables reflect the five unobserved constructs reliably. The authors used second-order CFA employing ML fitting functions (and bootstrapping) to determine the overall fit of the measurement model. The parameter summary and notes for the model show that the input covariance matrix generated from the 36 measurement variables in the model contains 666 distinct sample moments and 111 distinct parameters to estimate resulting in a model with 555 degrees of freedom (666 – 111).

Validity and reliability were tested by using the results obtained in the second-order CFA analysis and compared to the recommended values (Byrne, 2001; Hair, Black, Babin, & Anderson, 2010). For convergence validity, the authors compared the average variance extracted (AVE) for each factor with the recommended threshold > 0.50. All of the AVE values were higher than the threshold except for one related to SSN that was a fraction lower. For construct validity, the study compared the fitness indices for the model to their acceptable thresholds: χ^2 = 1425.639 with 555 degrees of freedom, CMIN/DF = 2.569, $p < 0.05$, CFI = 0.938, GFI = 0.831, AGFI = 0.798, TLI = 0.930, IFI = 0.938, PNFI = 0.795, and RMSEA (LO, HI) = 0.063 (0.059, 0.067). Thus, the overall fit of the measurement model was good. For discriminant validity, this study compared the correlations between exogenous constructs with the recommended threshold < 0.85. All of the correlations between exogenous constructs were lower than the threshold except for the one between ATB and EI that was a fraction higher. In addition, the authors checked that the square root of the AVE values were greater than the inter-construct correlations and that the AVE values were higher than the maximum shared variance (MSV) and the average shared variance (ASV). For internal reliability, the authors compared the Cronbach alpha for each factor with the recommended threshold > 0.70. All of the Cronbach alpha values were higher than the threshold. For composite reliability, this study compared the composite reliability (CR) for each factor with the recommended threshold > 0.60. All of the CR values were higher than the threshold. In summary, given the discussion above and the fact that the unstandardized regression weights were all significant by the critical ratio test ($> \pm 1.96$, $p < 0.05$), the model seems to fit the data well.

3.5 Group Invariance

One of the questions that this study wants to examine is whether the pattern of structural relations hypothesized in the path model follows the same dynamics for male and female students (as well as for the entire sample of the population). In investigating gender differences in the path model, it is necessary to first test whether the factor structure represented by the posited measurement model is the same for both groups (Ho, 2014), i.e., through common factor analysis. The authors checked for cross-group validity of the measurement model by performing a series of tests where the demands for the equivalence of the measuring model increased gradually to check for invariance. This study followed the recommendations by Blunch (2013) and used RMSEA as the main fit measure. **Chyba! Nenalezen zdroj odkazů.** shows that, after fitting the model simultaneously to the different datasets, the RMSEA is small across all the increasingly more constrained models.

Table 5 Fitness of the different models by the RMSEA measure

Model	RMSEA	LO 90	HI 90	PCLOSE
0) Unconstrained	0.037	0.035	0.038	1.000
1) Measurement weights	0.037	0.035	0.038	1.000
2) Structural weights	0.037	0.035	0.038	1.000
3) Structural covariances	0.036	0.035	0.038	1.000
4) Structural residuals	0.036	0.035	0.038	1.000
5) Measurement residuals	0.036	0.034	0.037	1.000

Model	RMSEA	LO 90	HI 90	PCLOSE
Independence model	0.137	0.136	0.139	0.000

(Source: own)

To further verify the fit of the various models, this study also looked at the incremental fit measures given in **Chyba! Nenalezen zdroj odkazů.**, constructed from several tables of marginal chi-square test for hierarchical models. The chi-square-difference test shows that all the models are not significant at any level. Furthermore, by adding increasing restrictions, the differences for indicators NFI, IFI, RFI, and TLI changed very little for all models.

Table 6 Incremental fit measures. Assuming model 0 (unconstrained) to be correct

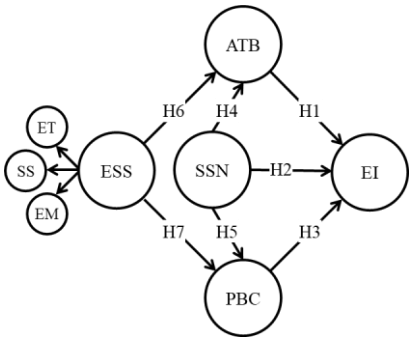
Model	DF	CMIN	P	NFI	IFI	RFI	TLI
1) Measurement weights	29	40.117	0.082	0.001	0.001	–0.001	–0.001
2) Structural weights	31	40.277	0.123	0.001	0.001	–0.001	–0.001
3) Structural covariances	46	49.255	0.344	0.002	0.002	–0.002	–0.002
4) Structural residuals	49	54.378	0.277	0.002	0.002	–0.002	–0.002
5) Measurement residuals	111	130.578	0.099	0.004	0.005	–0.003	–0.004

(Source: own)

3.5 Structural Model

The group invariance test of the measurement model above confirmed that the structural model is appropriate to evaluate and compare the two groups of students. For this, this study used the factor structure assessed in the measurement model, i.e., three factors with five measurement indicators each, one factor with six measurement indicators, one factor with three sub-factors with five measurement indicators each, and multi-group analysis applied simultaneously to the different samples as depicted in **Chyba! Nenalezen zdroj odkazů.**. To test the assumption that the path model holds for both male and female students, the authors followed the recommendations by Ho (2014) and required that the pattern of relationships (i.e., the path coefficients) be the same for both groups. However, they did not require the unique variances and covariances for male and female students to be group-invariant. The rationale behind this assumption of group-invariant path coefficients is that, although it is probably reasonable to assume that the observed and unobserved variables have different variances, covariances, and regression weights among male and female students, the process by which the two groups arrived at their decision about EI may be similar. If the path coefficients are the same for male and female students, then the same path coefficients can be used for both groups, which simplifies the prediction of the endogenous variables from the model's exogenous variables (Ho, 2014).

Figure 4 Second-order path model with seven hypotheses to test



(Source: own)

4 RESULTS AND INTERPRETATION

The covariance matrices generated from the datasets contain 1998 sample moments. For the unconstrained model, there were 324 distinct parameters to estimate and 1674 degrees of freedom (1998 – 324). For the constrained model, there were 306 distinct parameters to estimate and 1692 degrees of freedom (1998 – 306). **Chyba! Nenalezen zdroj odkazů.** presents a model fit summary for the unconstrained and constrained path models. Both models fit the data quite well.

Table 7 Model fit summary for unconstrained and constrained model

Measure	Unconstrained	Constrained
Absolute fit:		
Chi-square, *p*-value	3813.979, < 0.05	3830.856, < 0.05
RMSEA (LO 90, HI 90)	0.040 (0.039, 0.042)	0.040 (0.038, 0.042)
GFI	0.799	0.798
Incremental fit:		
AGFI	0.760	0.762
CFI	0.924	0.924
TLI	0.914	0.915
IFI	0.925	0.925
Parsimonious fit:		
Chi-square/*df*	2.278	2.264
PNFI	0.773	0.781

(Source: own)

Chyba! Nenalezen zdroj odkazů. shows the nested model comparison statistics for the two models assuming that the unconstrained model is correct. The comparison indicates that the chi-square difference value for the two models is 11.842 (3830.856 – 3813.979), which with 18 degrees of freedom (1692 – 1674), is not significant at any level. Therefore, the two models do not differ significantly in their goodness-of-fit.

Table 8 Nested model comparisons. Assuming the unconstrained model to be correct

Model	DF	CMIN	P	NFI	IFI	RFI	TLI
Constrained	18	16.877	0.532	0.001	0.001	–0.001	–0.001

(Source: own)

From an information theoretic standpoint, the Akaike information criterion (AIC) in **Chyba! Nenalezen zdroj odkazů.** shows that the constrained model would be the best model (Akaike, 1998; deLeeuw, 2011). In evaluating the hypothesized models, the AIC measure takes into account both model parsimony and model fit. Simple models that fit well receive lower scores, whereas poorly fitting models get higher scores (Ho, 2014). Based on the model comparison's findings, and assuming that the constrained model is correct, the constrained model's estimates are preferable over the unconstrained model's estimates (Ho, 2014).

Table 9 Akaike information criterion for the two competing models

Model	AIC	BCC	BIC	CAIC
Unconstrained	4461.979	4585.256		
Constrained	4442.856	4559.284		

(Source: own)

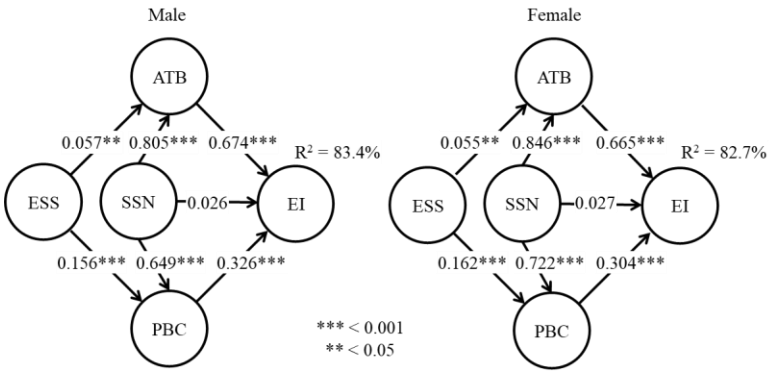
Chyba! Nenalezen zdroj odkazů. presents the unstandardized regression weights (RW) and standardized regression weights (SRW) for male and female students for the constrained model. Of the seven coefficients associated with the paths linking each gender-based model's exogenous and endogenous variables, six are significant by the critical ratio test ($> \pm 1.96$, $p < 0.05$) while one is not significant. **Chyba! Nenalezen zdroj odkazů.** depicts the path coefficients for male and female students. The relations hypothesized by H1, H3, H4, H5, H6 and H7 are significant at the $p < 0.05$ or $p < 0.001$ levels. The relations hypothesized by H2 is not significant.

Table 10 Regression weights and standardized regression weights

Path			RW	SE	CR	P	SRW Male	SRW Female	Label
EI	←	ATB	0.660	0.050	13.257	***	0.674	0.665	H1
EI	←	SSN	0.057	0.128	0.448	0.654	0.026	0.027	H2
EI	←	PBC	0.358	0.036	9.901	***	0.326	0.304	H3
ATB	←	SSN	1.836	0.145	12.629	***	0.805	0.846	H4
PBC	←	SSN	1.321	0.114	11.586	***	0.649	0.722	H5
ATB	←	ESS	0.060	0.030	2.023	0.043	0.057	0.055	H6
PBC	←	ESS	0.147	0.029	5.079	***	0.156	0.162	H7

(Source: own)

Figure 5 Structural path models for male and female students with standardized path coefficients



(Source: own)

Chyba! Nenalezen zdroj odkazů. presents the squared multiple correlations showing the amount of variance in the endogenous variables accounted for by the exogenous variables. For male students, the university's ESS and SSN account for 65.1% and 44.6% of the variances of ATB and PBC, respectively. For female students, the joint influence of the university's ESS and SSN account for 71.9% and 54.7% of the variances of ATB and PBC, respectively. Together, ATB, SSN, PBC and ESS account for 83.4% and 82.7% of the variances of the EI of male and female students, respectively.

Table 11 Squared multiple correlations

Group	ATB	PBC	EI
Male Students	0.651	0.446	0.834
Female Students	0.719	0.547	0.827

(Source: own)

Of the three paths influencing the EI of students, two are statistically significant, i.e., ATB (male: β = 0.674***, female: β = 0.665**) and PBC (male: β = 0.326***, female: β = 0.304***), where ATB seems the most influential. The university's ESS seems to have a significant positive effect on the precursors ATB (male: β = 0.057**, female: β = 0.055**) and PBC (male: β = 0.156***, female: β = 0.162***), where the influence on PBC seems to be the strongest. This could mean that students perceive that the university is contributing to their PBC, although relatively small, by providing them with the resources necessary to start a new business. Furthermore, the indirect effects of ESS on EI that flow through ATB and PBC are positive and significant for male (0.089**) and female (0.086**) students. **Chyba! Nenalezen zdroj odkazů.** shows the standardized indirect effects of ESS and SSN that flow through the different paths in the model. All of the indirect effects from ESS and SSN are positive and significant at the $p < 0.05$ level.

Table 12 Standardized indirect effects (male, female)

Path	Effect	Lower	Upper	SE	P
ESS → ATB + PBC → EI	0.089, 0.086	0.020, 0.020	0.169, 0.158	0.038, 0.036	0.009, 0.009
SSN → ATB + PBC → EI	0.754, 0.782	0.640, 0.684	0.896, 0.913	0.064, 0.059	0.001, 0.001

(Source: own)

Finally, this study estimated the factor means using a common factor analysis model of the data from both populations. Since it is not possible to estimate the means of every factor for both populations, the authors followed the approach by Sörbom (1974) to estimate the differences in factor means across populations. That method also provided a test of significance for differences in the factor means. To test the null hypothesis that the factor means are the same for male and female students, the regression weights and intercepts were set as equal and the factor means for male students set to zero. The common factor analysis model fits the data well by the FP and the unstandardized regression weights are all significant by the critical ratio test ($> \pm 1.96$, $p < 0.05$). Since the authors fixed the factor means for male students to zero, **Chyba! Nenalezen zdroj odkazů.** shows the factor means for the difference between both populations. The university's ESS seems to affect male students more than it does female students although the difference is not significant. The EI of female students seems to be lower than that of the male students, −0.563**. This difference could be very material, judging by their standard deviations (male students, 1.472*** and female students, 1.511***).

Table 13 Difference in factor means for female students

Factor	Estimate	Lower	Upper	P

Factor	Estimate	Lower	Upper	P
ESS	–0.200	–0.466	0.120	0.167
ATB	–0.585	–0.905	–0.301	0.002
PBC	–0.411	–0.689	–0.132	0.003
EI	–0.563	–0.884	–0.270	0.002
SSN	–0.200	–0.420	–0.038	0.020

(Source: own)

CONCLUSIONS

This study enabled the authors to develop a better understanding of the influence of the university's ESS on the antecedents of the EI of female students. The literature review found that there are numerous studies previously done to measure gender differences in the EI of university students. Furthermore, very few researchers conducted specific studies to understand the relationship between the university's ESS and the EI of female students. Based on previous research by others, the authors were able to develop a methodology to assess the influence of the university's ESS on the antecedents of the EI of female students. Analysis of the data suggests that the methodology is appropriate to measure the relation between the four precursors (ATB, SSN, PBC, ESS) of EI and the EI of male and female students and their differences. Analysis of the data also corroborated that the university's ESS comprises three distinct but related constructs: ET, SS, and EM, and that these could indirectly shape the attitudes of female students and have an impact on their general motivation to behave. The results show that the university's ESS has a significant but low influence on the PBC of female students, while its influence on the ATB of female students is only significant at the <0.05 level. However, ATB has a much larger influence than PBC on the EI of female students due to the impact of SSN. The authors posit that since SSN has such a large influence on both the ATB and PBC of female students, finding ways to design some elements of the university's ESS such that they would positively influence SSN might prove to be beneficial to the university's efforts to support female student entrepreneurs.

Furthermore, since the overall results of this study are consistent with similar research done by others, further analysis of the data can inform the university in order to improve the current university's ESS for female student entrepreneurs. In addition, results from this study will serve as a baseline for future research and longitudinal studies. The authors will use a refined version of this study to re-assess the influence of the university's ESS on a regular basis (bi-yearly or every four years). With the evolving information, the university will be able to assess the efficacy of its innovation and entrepreneurship initiatives in promoting entrepreneurial activities on campus. By understanding its entrepreneurial efficacy, the university will be better equipped to raise the perceptions of venture feasibility and desirability, thus increasing students' perceptions of opportunity. The authors hope that other aspiring entrepreneurial universities will conduct similar studies in order for them to gauge their respective entrepreneurial initiatives, and to grow the literature with specific cases that researchers and practitioners can use to build a deeper understanding of the EI of female university students.

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APPENDIX

Table 14 Synthesis of results across studies

Article	Hypothesis or research question	Supported?
(Mueller & Dato-On, 2008)	"Males express higher levels of entrepreneurial self-efficacy than females."	No
	"Among both males and females, a stereotypical masculine orientation is associated with higher levels of entrepreneurial self-efficacy than a stereotypical feminine orientation."	Partially
	"Among both males and females, an androgynous orientation is associated with higher levels of entrepreneurial self-efficacy than a stereotypical feminine orientation."	Partially
	"Among both males and females, higher levels of self-efficacy for the searching-phase entrepreneurial tasks are associated with an androgynous orientation compared to a stereotypical masculine orientation."	Partially
(Gupta et al., 2008)	"When men and women are not provided with any gender stereotypical information about entrepreneurs, men will report stronger entrepreneurial intentions than women."	Yes
	"Respondent gender and stereotype activation will interact such that men will report stronger entrepreneurial intentions when presented with an implicit versus an explicit masculine stereotype whereas women will report stronger entrepreneurial intentions when presented with an explicit versus an implicit masculine stereotype."	Yes
	Respondent gender and stereotype activation will interact such that women will report stronger entrepreneurial intentions when presented with an implicit versus an explicit feminine stereotype, whereas men will report stronger entrepreneurial intentions when presented with an explicit versus an implicit feminine stereotype."	No
	"Respondent gender and stereotype activation will interact such that men will report significantly stronger intentions than women in the no stereotypical information condition, but men and women will report similar entrepreneurial intentions in the stereotype nullified condition."	Partially
(Wilson et al., 2009)	"Entrepreneurial self-efficacy and entrepreneurial intentions are lower in female students than male students at both middle/high school and MBA stages."	Yes
	"The effects of gender on entrepreneurial intentions of students are mediated by entrepreneurial self-efficacy."	Partially

(Yordanova & Tarrazon, 2010)	"Women exhibit less favorable attitudes toward entrepreneurial behavior than men."	Yes
	"Women perceive less supportive subjective norms about entrepreneurial behavior than men."	Yes
	"Women have lower perceived behavioral control for entrepreneurship than men."	Yes
	"Women exhibit lower entrepreneurial intentions than men."	Yes
	"The gender effect on entrepreneurial intentions is mediated by attitudes toward entrepreneurship."	Yes
	"The gender effect on entrepreneurial intentions is mediated by perceived subjective norms."	Yes
	"The gender effect on entrepreneurial intentions is mediated by perceived behavioral control."	Yes
(Phipps, 2012)	"A positive relationship exists between creativity and entrepreneurial intentions among women."	Yes
	"A positive relationship exists between political skill and entrepreneurial intentions among women."	Yes
	"Political skill will moderate the relationship between creativity and entrepreneurial intentions among women, such that the relationship will be stronger when women are more politically skilled than when they are less politically skilled."	No
(Dabic et al., 2012)	"There is a significant gender difference in students' willingness to start their own business."	Yes
	"There is a significant gender difference in students' intentions towards entrepreneurship as measured by desirability and feasibility."	Yes
	"Among students willing and not willing to start their own business, there is a significant gender difference in students' intentions towards entrepreneurship as measured by desirability and feasibility."	No
	"There is a significant gender difference in students' perceptions towards the academic programmes / activities / projects required to prompt success in an entrepreneurial career."	Yes
(Haus et al., 2013)	"Women exhibit a lower average attitude toward starting a business compared to men."	Yes
	"Women exhibit a lower average subjective norm to start a business than men."	Yes
	"Women show a lower average PBC toward starting a business than men."	Yes
(Shneor et al., 2013)	"Males will exhibit higher levels of entrepreneurial intentions, self-efficacy and perceived social norms, as well as lower levels of risk perceptions than females."	Yes
(Karimi et al., 2013)	"Gender moderates the relationship between attitude and EI such that this relationship is stronger for male students than for female students."	Yes
	"Gender moderates effect of subjective norms on EI such that this relationship is stronger for female students than for male students."	Yes
	"Gender moderates the relationship between PBC and EI such that this relationship is stronger for female students than for male students."	Yes
(Ashkezari &	"Family barriers affect women's entrepreneurship."	Yes

Ashkezari, 2013)	"Scientific-educational barriers affect women's entrepreneurship."	Yes
	"Cultural-social barriers affect women's entrepreneurship."	Yes
	"Educational and training barriers affect women's entrepreneurship."	Yes
	"Individuals character barriers affect women's entrepreneurial."	Yes
	"Financial barriers affect women's entrepreneurship."	Yes
	"Legal barriers affect women's entrepreneurship."	Yes
(Maes et al., 2014)	"Personal attitude serves as a direct mediator in explaining the weaker entrepreneurial intentions of women compared to men."	Yes
	"Perceived behavioral control serves as a direct mediator in explaining the weaker entrepreneurial intentions of women compared to men."	Yes
	"Social norms do not serve as a direct mediator in explaining the weaker entrepreneurial intentions of women compared to men. Instead, the influence of social norms runs indirect through personal attitude and perceived behavioral control."	No
	"Women value balance in entrepreneurship more than their male counterparts."	Yes
	"Women value achievement in entrepreneurship less than their male counterparts."	Yes
	"Internal control attributes are more important for women than for men."	Yes
	"External control attributes are more important for women than for men."	Yes
	"Men will show comparatively stronger normative beliefs regarding entrepreneurship than women."	No
	"Women will be comparatively more motivated to comply with social demands than men."	Yes
(Zhang et al., 2014)	"Females have lower EI than males do."	Yes
	"Gender has a positive interactive impact on the relationship between entrepreneurship education and EI."	Yes
(Dempsey & Jennings, 2014)	"Young women will possess less enactive mastery related to entrepreneurship than young men, which will partially account for their lower ESE [entrepreneurial self-efficacy]."	Yes
	"Young women will possess less vicarious experience related to entrepreneurship than young men, which will partially account for their lower ESE."	No
	"Young women will exhibit more negative (and less positive) physiological arousal related to entrepreneurship than young men, which will partially account for their lower ESE."	Yes
	"Young women will receive less positive (and more negative) verbal persuasion related to their suitability for an entrepreneurial career than young men, which will partially account for their lower ESE."	Partially
(Amentie & Negash, 2015)	"Parents background and discourage female students to start small business are not independent."	Yes
(Zeffane, 2015)	"Males are more likely to display intentions to become entrepreneurs than their female counterparts."	Partially
	"Females propensity to trust is lower than that of males."	Partially
	"Females are less risk taking (or more risk averse) than their	Yes

	male counterparts."	
	"Trust and risk taking have a stronger impact on EI."	Partially
(Westhead & Solesvik, 2016)	"The relationship between participation in EE (entrepreneurship education) and intensity of entrepreneurial intention is moderated by gender such that there is a negative relationship for female students and a positive relationship for male students."	Yes
	"Gender will moderate the relationship between EE and (a) scan alertness, (b) connection alertness and (c) evaluation alertness skills and intensity of entrepreneurial intention, such that the relationships will be weaker for female than for male students participating in EE."	No
	"Gender and participation in EE will moderate the relationship between accumulation of the risk-taking skill and intensity of entrepreneurial intention in so far that for female EE students, a weaker relationship will emerge between (a) RC and (b) RP skills and intensity of entrepreneurial intention."	Partially
(Sahban et al., 2016)	"There is a difference between male and female business students in dealing with entrepreneurship."	Yes
(Hussain & Hashim, 2016)	"Attitude has significant effect on entrepreneurial intentions of the females towards entrepreneurship."	Yes
	"PBC has significant effect on entrepreneurial intentions of the females towards entrepreneurship."	No
	"SN has significant effect on entrepreneurial intentions of the females towards entrepreneurship."	Yes
(Shirokova et al., 2016)	"The positive relationship between entrepreneurial intentions and scope of start-up activities will be stronger for male student entrepreneurs than for female student entrepreneurs."	Yes
	"The relationship between entrepreneurial intentions and the scope of start-up activities will be positively moderated by the favorable university entrepreneurial environment."	Yes
(Arshad et al., 2016)	"Gender moderates the effect of social norms on attitude toward entrepreneurship, such that the positive effect of social norms on attitude toward entrepreneurship is higher among females."	Yes
	"Gender moderates the effect of self-efficacy on attitude toward entrepreneurship such that the positive effect of self-efficacy on attitude toward entrepreneurship is higher in males."	Yes
(Villasana et al., 2016)	"The mean scores for the four dimensions of the entrepreneurial profile are different for female and male undergraduate students."	Partially
(Perez-Quintana et al., 2017)	"The higher the masculine GRO [gender-role orientation] of participants, the higher the entrepreneurial intention."	Yes
	"The higher the female GRO of participants, the lower the entrepreneurial intention."	No
	"The higher the androgynous GRO of participants, the higher the entrepreneurial intention."	Yes
(Srivastava & Misra, 2017)	"More favorable the social norms, the more positive will be the personal attitude."	Yes
	"More favorable the social norms, the stronger will be the perceived behavioral control."	Yes
	"More positive the personal attitude, the stronger will be the	Yes

	entrepreneurial intentions."	
	"Stronger the perceived behavioral control, the stronger will be the entrepreneurial intentions."	Yes
(Feder & Nițu-Antonie, 2017)	"Gender (G) moderates the influence of personal attitude (PA) on entrepreneurial intentions (EI)."	No
	"Gender (G) moderates the influence of perceived behavioral control (PBC) on entrepreneurial intentions (EI)."	Partially
	"Gender (G) moderates the influence of subjective norm (SN) on entrepreneurial intentions (EI)."	Partially
(Ferri et al., 2018)	"Attitude toward entrepreneurship has a positive effect on entrepreneurial intention of Italian female students."	Yes
	"Subjective norm, regarding entrepreneurship, has a positive effect on the entrepreneurial intention of Italian female students."	Yes
	"Perceived behavioral control has a positive effect on the entrepreneurial intention of Italian female students."	Yes
(Ojewumi et al., 2018)	"…entrepreneurial intention will be significantly lesser among women than among the men counterparts."	No
(Arora & Jain, 2019)	"There is no significant difference among male students of government management institutes, male students of private management institutes, female students of government management institutes and female students of private management institutes with respect to entrepreneurial intentions."	Rejected
	"There is no significant difference between male students of government management institutes and female students of government management institutes with respect to entrepreneurial intentions."	Not Rejected
	"There is no significant difference between male students of government management institutes and female students of private management institutes with respect to entrepreneurial intentions."	Not Rejected
	"There is no significant difference between male students of private management institutes and female students of government management institutes with respect to entrepreneurial intentions."	Rejected
	"There is no significant difference between male students of private management institutes and female students of private management institutes with respect to entrepreneurial intentions."	Rejected
	"There is no significant difference between female students of government management institutes and female students of private management institutes with respect to entrepreneurial intentions."	Not Rejected

(Source: own)

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