



StartUps Success:

The critical factors for Startups Success in Visegrad Group

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I. Abstract

Title: Startups Success: The critical factors for StartUps Success in Visegrad Group

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StartUps have a significant responsibility in today's markets.

In developing countries, StartUps are more in number and beginning to have more power. This study explores the different factors affecting StartUps' performance in the Visegrad markets. The study focuses on the factors that lead to the StartUps' success. The environment in the four countries does not differ much, but some factors have more weight than others. The new generations that are beginning to appear on the job market help a lot so that this development will certainly continue in the coming years.

The results show that there is more and more investment in new companies. However, some factors facilitate the achievement of success. The conclusion is that Hungary is the country with the highest chance of success for StartUps

Keywords: StartUps, Success Factors, Education, Investment, Entrepreneurship Spirit, Business/Management Skills, Visegrad, Poland, Hungary, Slovakia, Czech Republic

II. Sumário

Título: Sucesso das StartUps: Os factores críticos que justificam o sucesso de StartUps no grupo de Visegrad

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As StartUps têm uma grande responsabilidade nos mercados actuais.

Nos países em desenvolvimento as StartUps são mais numerosas e estão a começar a ter mais poder. Este estudo explora os diferentes factores que afectam o desempenho das StartUps nos mercados dos Países do Grupo de Visegrad. O estudo foca os factores que levam ao sucesso de StartUps. O ambiente nos quatro países não difere muito, mas alguns têm mais peso do que outros. As novas gerações que começam a aparecer no mercado de trabalho ajudam muito para que esta evolução continue.

StartUp. Os resultados mostram que há cada vez mais investimento em novas empresas. No entanto, há factores que facilitam a obtenção do sucesso. A conclusão é que a Hungria é o país com maiores probabilidades de sucesso para StartUps.

Palavras-chave: StartUps, Factores de Sucesso, Educação, Investimento, Espírito Empreendedor, Espírito Empresarial, Espírito Empresarial/Habilidades de Gestão, Visegrad, Polónia, Hungria, Eslováquia, República Checa

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1. Introduction

1.1 Background

The number of StartUps is growing every year. Technological advances and different ways of looking at the labour market will continue to change. Investments in new products or services will increase. More and more countries will follow this trend.

<i>Number of New Firms Registered</i>						
	<i>EU 28</i>	<i>V4</i>	<i>CZ</i>	<i>Hun</i>	<i>Pol</i>	<i>Slo</i>
<i>2012</i>	111 265	16 155	1 312	2 025	11 161	1 657
<i>2013</i>	130 000	18 999	1 654	2 835	12 624	1 886
<i>2014</i>	130 000	23 790	3 109	3 205	13 876	3 600
<i>2015</i>	138 530	23 079	3 248	3 595	14 110	2 126
<i>2016</i>	139 966	24 979	3 575	3 647	15 828	1 929
<i>2017</i>	144 982	30 358	4 799	4 566	17 713	3 280

Table 1 Comparison in the number of new companies in the EU28 and the Visegrad countries (Source EuroStat)

The tendency to follow traditional paths, to go to work for large companies, just have decreased. That is directly linked to the increase in the number of StartUps in Visegrad countries.

The high number of companies present in various markets increases the competition between them, becoming increasingly challenging to achieve success. It is, therefore crucial that new companies entering the markets follow specific strategies. Bankruptcy must not be the destination.

It is essential to withstand the pressure on StartUps markets.

They must acquire financing to develop their ideas in products or services reach potential that consumers or customers.

Entrepreneurs should believe in their ideas, materializing them into products or services. Nevertheless, they must realize that this does not make them successful entrepreneurs.

The founders must surround themselves with experienced professionals with a broad academic background. Only then will it be possible to achieve excellent results. Education helps to create

essential foundations for business success. Entrepreneurs with vast knowledge in Business/Management help to achieve success more quickly.

Regarding Government Support, experts do not believe that the actual measures will help new companies to stabilize in the markets. Aid from governments is known for a large number of bureaucratic processes which does not make its fundamental role in helping new companies to succeed

In 2016 Visegrad Group (V4) celebrated its 25th anniversary. V4 is a regional example of cooperation between countries, a focus of stability at the European level with the distinct goal of enrichment their region.

Nowadays V4 faces several challenges such as

- EU financial situation,
- migration,
- terms, and trade conditions.

With the sense of commitment, cooperation and solidarity that the group represents, these challenges will be more easily answered.

StartUps are rising in every corner of our world.

In the past, the number of new firms enters markets around the world was smaller. However, the StartUp's story changed this. Innovative StartUps of the early twenty-first century are different from the previous ones. In the last century, StartUp's batch impacted several industries with due importance in various markets facing the regulatory frameworks governing business activity (Smith & Hurt, 2017).

1.2 Academic Relevance

Quality literature has been written about StartUps and Visegrad to convince anyone that Visegrad was and still is very real and that it deserves both celebration and severe study (Fawn, 2008).

“The V4 region needs shared visions about the future of business and shared actions combined with smart specialization policies implementation to take advantage of interregional opportunities

and be up to international competition” (Sacio-Szymańska, A., Kononiuk, A., Tommei, S. et al., 2016).

It is essential to understand the reasons that explain why StartUp's performance in Visegrad countries is very positive and understand which of the four countries has a higher possibility of success.

1.3 Managerial Relevance

StartUps have become increasingly important.

Large multinationals are beginning to bet on StartUps methods, and the professionals themselves are beginning to consider working on StartUps instead of following the traditional path of multinationals or large banks. It will then be essential to understand what factors most influence the success of StartUps in Visegrad.

When looking at V4, we are speaking of the fifth-largest economy in Europe (Harper, 2019). The importance that this group has gained in recent years is remarkable.

1.4. Problem Statement and Research Questions

During the last decade, we quickly verify that the number of StartUps increased in the Visegrad Group. Also, of having a more significant number of new companies is also a higher chance of success.

This study will mainly focus on the factors that help to understand why this success in StartUps in the countries that belong to V4 – Poland, Czech Republic, Hungary, and Slovakia.

Therefore, the following research questions were formed:

- RQ 1: What factors have a more significant impact on the success of StartUps in the countries of Visegrad?
- RQ 2: Which of the four countries presents the highest likelihood of success?

2. Literature Review

This chapter reviews the literature related to the problem statement. It begins on understanding the factors that represent an emerging market - factors that influence Innovation and Entrepreneurship in Visegrad are analyzed -, and, in a second approach, the influence of StartUp culture and the influence of education.

2.1. Introduction to StartUps

2.1.1 The StartUp concept

Technology-based firms are a phenomenon of primary economic importance. Some new technology-based firms have reached phenomenal growth rates (Storey & Tether, 1996).

The first approach to the StartUp concept can be explained as a human enterprise or institution born from various sectors of existing markets, with innovation being the central point in its AND with the goal on developing products and services that powers a revolution in the market. (Moroni & Araujo, 2015).

The evolution we see in products and services is disruptive and implying that is the only way to compete successfully in the globalized economies we see today. Clear examples of this are companies like Facebook or Tesla Motors, exemplifying what is expected of StartUps these days.

The big multinationals are not anymore the ones that can cause "damage" in the markets, being untouchable, thus disturbing entire industries (Weiblen & Chesbrough, 2015).

StartUp terminology can be understood in several ways. Some consider StartUps as new products. Academics classifies the term StartUp as new companies that enter in different market branches with fewer resources and experience (Bhidé, 1999). Entrepreneurs and investor's perspectives of the StartUp are presented as highly innovative and dynamically developing enterprises that utilize digital technologies (Skala, 2019). These two perspectives create the most unclear and unmatched results (; Breschi et al. 2018; Santisteban and Mauricio, 2017). However, to develop this research is vital to accurate the definition of a StartUp.

There are millions of research publications on StartUp's, but it is possible to group them into three categories:

- beginner companies;
- new enterprises which commercialize scientific achievements that are, new- technology-based firms (NTBFs),
- Entities creating and using digital technologies (digital StartUps, IT, or information and communication technologies [ICT])

First, it is necessary to realize that these new firms are usually more innovative than the others, thus leading to faster growth (Breschi et al. 2018).

Regarding Fontes and Coombs (2001), the central role of NTBFs in developing technological capabilities lies in their technological dynamism. Three functions are those performed by NTBFs:

- The first is the transfer of knowledge and technology from academic research to markets.
- The second is a combination of learning acquired outside the country and of local origin, thus increasing the range of competence.
- Finally, the intensification and expansion of technological and industrial networks make NTBF an intermediate means at a technical level.

At first glance, NTBFs were defined as “companies using new advanced technologies or operating in fast-growing new industries, including IT” (Kelley and Nakosteen 2005; Autio 1997; Rothwell 1989; Cooper 1971). What characterizes these StartUps is their high spending in areas such as R&D, such as trying to achieve new and better forms of solutions in their own business (Cooper, 1971). Not reaching a single definition makes it very difficult to classify this group of StartUps. In line with the difficulty of finding an only explanation for StartUps, the consensus on the accurate classification of NTBFs is not the most consensual (Cunha et al. 2013).

Digital industry StartUps, according to the proposition reached by Giones and Brem (2017), are “entrepreneurship in digital technologies occupies an intersection between technological and digital entrepreneurship.”

2.1.2 Reasons for StartUp success

2.1.2.1 Education and Business/Management Skills

Access by all to a broader range of ideas, the ability to trade across different platforms, the opportunity to get to know new cultures more efficiently is called globalization (Kofman and Youngs, 2008; Rosenberg, 2005). International and cross-national interaction also brings essential political and ethical concerns (Smith et al., 2016).

Education is often associated with globalisation, “the most commonly found institution and most commonly shared experience of all in the contemporary world” (Dale and Robertson, 2003). The development of students in today's world goes through the opportunity to carry out programs with “strangers”, thus increasing what students think about themselves, but, above all, what they think about others, making them more responsible citizens and professionals (Smith et al., 2016).

Business/Management education is fundamental in business ecosystems because it helps the professional to make the best decisions in certain circumstances. The development of our knowledge in areas such as Business/Management shapes people to understand the main factor in these ecosystems - the human factor (Skala, 2019). “The dilemmas of management education and entrepreneurship are therefore also related to the training of StartUps founders and other members of a widely defined StartUps ecosystem” (Skala, 2019).

Different business/management skills have developed over time. It is important to emphasize that the lack of management qualities is a fatal characteristic to entrepreneurs, which materializes in a lack of management skills necessary to expand their companies to international markets. (Armanios, Eesley, Li, & Eisenhardt, 2017; Kulchina, 2017; Bloom & Van Reenen, 2010; Azoulay & Shane, 2001)

Business training programs, courses in management related areas such as business plan competitions are ways for entrepreneurs to improve their management skills (Camuffo Gambardella, & Spina, 2018; Lyons & Zhang, 2018; Bryan, Tilcsik, & Zhu, 2017; Howell, 2017; Fairlie, Karlan, & Zinman, 2015)

Few articles analyse the true relationship between the role of education in increasing entrepreneurship and the intentions of being an entrepreneur. However, Pittaway and Cope (2007),

analyse whether there is a link that connects education with entrepreneurship and the intentions of being entrepreneurial in Visegrad countries. Aleksandra Gawel & Maciej Pietrzykowski, two Polish researchers, concluded that education should be used as a tool to stimulate entrepreneurship in people. However, for education to be effective, training areas and teaching methods must be properly selected. Following this methodology, it turned out that, in Poland, intentions to be entrepreneurial have increased.

Similarly, Packham and his colleagues concluded that a business education had a positive impact on the intentions to be entrepreneurial, especially in growing communities (Packham et al. 2010). Several researchers have found a positive relationship between business education and self-employment in emerging economies (Bae et al. 2014; Martin, McNally, and Kay 2013; Zwan, Zuurhout & Hessels, 2013). Finally, Walter and Block (2016) identified that there is a much stronger correlation in countries where the institutional climate is not the safest for lower levels of entrepreneurship.

2.1.2.2 Innovation and Entrepreneurship

First, let us define the concept of innovation.

The idea of innovation has undergone many changes over the years being, according to Longman's Dictionary of Contemporary English, "a new idea, method, or invention; the introduction of new ideas or methods."

Second the attempt to universalize the study of entrepreneurship as a single idea that predicts and examines all business phenomena. (Alvarez & Barney, 2017)

Joseph Schumpeter, a leading economist, developed ideas between entrepreneurship, innovation and economic sciences, thus creating a definition of "creative destruction" that simultaneously combines the concepts of creativity, novelty, innovation, and development, thus defining entrepreneurs as innovators. Schumpeter pointed out that change can even have the power to destroy established companies, arguing that new and better (innovative) solutions make major players disappear (Papageorgiou & Michaelides, 2013).

Innovation is a challenge in an emerging market (EM) because of weak external institutions, associated with market failures (Khanna & Palepu, 1997) and legal and political governance

services normally considered highly bureaucratic and corrupt (Bruton, Filatotchev, Chahine, & Wright, 2010; Khanna & Palepu, 1997)

Schumpeter started the studies on innovative business StartUps, focusing the individual as an entrepreneur responsible and having the necessary attributes and skills for innovation. This new way of thinking was also supported years later by Peter Drucker, who believed that only entrepreneurs founding new solutions revealed a "real" entrepreneurship (Drucker, 1992). This new generation of people, known as new entrepreneurs, is recognized for their ability and desire to find better solutions for the markets in which they work (Wennekers and Thurik, 1999). Other scholars considered market value due to improved products and services (Ács et al. 2009; Shane 2003) and that new skills increase the chances of success (Koellinger 2008; Shane 2000).

In the last decade, american economist Willam Baumol (2010) refuted the view of his predecessors, stating that the most successful entrepreneurs are the ones who improve ideas already produced before; this improvement creates changes that lead the business to boost their results.

This dispute remains one of the fundamental issues these days.

Jerzy Cieřlik (2017) comments extensively on this dichotomy, pointing out that it is reflected not only in academic research (different research methods and tools) but also in the sphere of economic policy (different objectives and instruments). For Cieřlik, there are two types of entrepreneurs, the innovative/ambitious and the non-innovative / ambitious, simplifying and proposing a realistic model, more suited to Baumol's moderate views, and thus recognizing imitations and modest ambitions of entrepreneurs as distinguished from the point of view.

This path returns in the discussion about StartUps because the majority of these do not create radically new solutions, but "improve" or copy existing ones, often achieving significant market success.

2.1.2.3 Financing

Providing funds to innovative SMEs is a challenge in many countries and funding gaps are especially visible in emerging economies (OECD, 2006).

Almost all innovative StartUps face difficulties in the capital attraction phase. The asymmetry of information between founders and potential investors, which is more significant in early stages, is

striking, as investors often lack the necessary knowledge (Davila, Foster, and Gupta 2003; Gompers and Lerner 1999).

Adequate funding in the early stage of an enterprise strongly influences its future success or failure (Carter and Van Auken 1990; Gimeno et al. 1997).

Investment at the initial stage can be attracted via different sources of financing: FFF (family, friends, fools), grants, business incubators and accelerators, crowd-founding platforms, business angels, or venture capital investors.

Venture capital investments primarily provide financing for young innovative companies with the potential for rapid growth (Prohorovs and Pavlyuk 2013). Tykvova, Borell, and Kroencke (2012) note that venture capital investments are crucial in the seed financing stage and in high-tech industries.

Research data from Slovakia, Czech Republic, and Poland confirm that 70–80% of StartUps reinvest their income, meaning they were financed from savings. Simultaneously, part of them reaches out for external financing. Only 6.5% of Czech StartUps and 15% of those from Slovakia, 22% of Polish, and 25% of Hungarian tech companies used local venture capital funds. In each surveyed country, approximately 15% of StartUps secure financing from business angels. While the level of public funds is the lowest among Czech StartUps (8%), this proportion is relatively higher for Polish entities (24%). Very few StartUps in Hungary (2%) in the Czech Republic (3%) and Slovakia (9%) use scientific grants. As many as 11% of StartUp projects are funded by crowdfunding in Slovakia, the highest score for the V4 region (Visegrad StartUp Report 2016/2017).

2.2. Visegrad Markets

2.2.1. Overview of Visegrad Markets

“Trade policy uncertainty, geopolitical tensions, and idiosyncratic stress in key emerging market economies continued to weigh on global economic activity” (IMF, 2020). They differentiate themselves from Develop Markets commonly by lower-income and higher GDP growth (Xu & Meyer, 2013).

Visegrad Group population aims approximately 63 million people. The Visegrad group represents approximately one-tenth of the EU economy. Regarding growth rate, Poland and Slovakia are the countries that represent a higher increase, although the Czech Republic and Hungary are presenting an increase encompassing with EU average. However it is important to refer that the growth of the group is quite low, though faster than other EU countries, the results are not outstanding (Visegrad StartUp Report 2016/2017).

% of the population aged 18-24 with at most lower secondary education and not in further education or training

	2012	2013	2014	2015	2016	2017	2018	2019
<i>EU 27</i>	12.6	11.8	11.1	11.0	10.7	10.6	10.5	10.2
<i>CZ</i>	6.6	5.4	5.5	6.2	6.6	6.7	6.2	6.2
<i>HUN</i>	11.8	11.9	11.4	11.6	12.4	12.5	12.5	12.0
<i>POL</i>	5.7	5.6	5.4	5.3	5.2	5.0	4.8	5.1
<i>SLO</i>	5.3	6.4	6.7	6.9	7.4	9.3	8.6	8.0

Table 2 Comparison in % of the population aged 18-24 with at most lower secondary education and not in further education or training (Source EuroStat)

Czech Republic, capital Prague, official language Czech.

Czech Republic joined the EU in 2004 and is preparing to join the Euro. Czechia population has 10,625,695 inhabitants. 92% of 25-64 year-olds population has at least an upper secondary education. The Czech Republic presented a GDP per capita of USD 23.078 in 2018, and the annual DGP growth rate was 2,0% (OECD, 2019). 2.6% of GDP is spending on R&D. Regarding the rank of Doing the Business Czech Republic appears in position number thirty-five (Doing Business, 2020).

Hungary has 9,678,785 inhabitants, the official language is Hungarian, capital Budapest.

94% of young people (25-34 years old) are expected to graduate from upper secondary education during their lifetimes. Hungary presented a GDP per capita of USD 16.161 in 2018, and the annual

DGP growth rate was 1.6%. 1.38% of GDP is spending on R&D (OECD, 2019). Concerning the rank of Doing Business, Hungary performs in fifty-three (Doing Business, 2020).

Poland, capital Warsaw, is the country from Visegrad with higher GDP per capita.

The Polish population, 37,978,548 people, represents 60% of the Visegrad Population. Seven out of ten tertiary-educated adults have a master’s degree in Poland. Poland presented a GDP per capita of USD 15.420 in 2018, and the annual DGP growth rate was 3.1% (OECD, 2019). Only one percent of GDP goes to R&S. The Doing Business ranking shows that Poland is established in thirty-three (Doing Business, 2020).

Bratislava, is the capital of Slovakia, being Slovak the official language. Slovak Republic population has 5,447,011 inhabitants. Only 37% of young adults (aged 25-34) have completed tertiary education. Slovak Republic GDP per capita was USD 19.442 in 2018, and the annual DGP growth rate was 3, 0%. Only a small percentage (1.6%) of GDP was spent in R&D in Slovakia (OECD, 2019). Regarding the rank of Doing Business, Slovak Republic appears in position number forty-two (Doing Business, 2020).

2.2.2. Doing Business in Visegrad Markets

An interesting part of World’s growth is taking place in today’s EM. Developed Markets faced limited growth options and high costs of production. The EM economy is increasing and at a faster pace.

	<i>Score Starting a Business</i>		<i>Getting Credit Score</i>	
	<i>2018</i>	<i>2019</i>	<i>2018</i>	<i>2019</i>

OECD	90.9	91.3	64	64.3
CZ	82.1	82.1	70	70
HUN	87.9	88.2	75	75
POL	82.8	82.9	75	75
SLO	82	84.8	70	70

Table 3 Two different score: Score Starting a Business and Getting Credit Score (source Doing Business Rankings)

Antoine van Agtmael characterized the EM economies as “rapidly growing economies with rapid industrialization” (Agtmael, 2007). The majority of these countries transition phase from developing to developed marked is a result of fast evolution and industrialization (Schwab, 2017). By the end of the last century, the new emerging markets were not called developing countries. Due to a climate of instability, past economic reforms, and former communist and socialist countries. Nowadays, the V4 countries have the freedom to choose their financial destinations due to new partnerships and new policies that enhance this growth are now some of the most attractive markets. (Artisien-Maksimenko & Rojec, 2016).

These four countries are located in Central and Eastern Europe. The progress that occurred in this European region has been made by an economic evolution as well. This rapid growth is directly related to the growth of foreign direct investment (FDI) in the majority of the developing and transition countries. The political shift after the fall of URSS allowed FDI to play a more significant role. Since 2004 the four countries became members of the European Union. These countries have promoted a setup of new strategies that helped them to reintegrate European and international markets, increasing FDI in the V4 countries. (Rugraff, 2008).

2.3. StartUp in Visegrad countries

The success of StartUp’s took similar reasons for the four countries.

The Czech Republic has registered the highest quality of life in the group and higher urbanization rate. These two reasons empowered the growth of StartUps. Czech Republic recorded a high investment activity in the field of R&D and a more significant number of specialists among all employees. The Czech Republic is Leader in the Global leader in the Global Innovation Index (Visegrad StartUp Report 2016/2017).

In Hungary, the majority of investments in R&D are dominated by the private sector and, due to the government's political orientation, have recorded a lack of initiatives from public organizations. Despite this, the Hungary population has one of the higher rates of penetration on mobile technologies, Hungarians react very well to new technologies (Visegrad StartUp Report 2016/2017).

Poland is the country with more potential. First of all, it is a more massive country with higher human and economic potential. The engineers' graduates in Poland are considered among the best in the world. Regarding the Doing Business list, Poland was the leader in the 2016 ranking. EU released a few programs that ensure financing in polish organizations assisting them to achieve better results. Although this friendly environment justifies the increase, the polish population is reticent to new technologies (Visegrad StartUp Report 2016/2017).

The Slovak Republic is the country with the highest rate of unemployment. However, this unpleasant rate, Slovakia recorded the second more elevated level of the economic group and verified the top rate of labour productivity. Their crowdfunding programs were the most popular among respondents in V4 countries (Visegrad StartUp Report 2016/2017).

3. Methodology

3.1 Research Design

In this dissertation, both primary and secondary data are used.

First, the research provided an approach to the StartUp industry and the four emerging markets in the Visegrad Group. Secondary data was additionally used to create a knowledge of the critical factors.

The investigative method was chosen considering that this study does not intend to develop a new theory on what impacts the StartUp performance, but rather to check the factors that were tested on prior researches and seeking to recognize if they influenced the success of StartUps in the Visegrad.

A systematic review of the existing literature was made to know the Visegrad economy.

The research presents five factors that are important to the success of the StartUps: education, entrepreneurship spirit, financing, business/management skills and government support. To understand the impact of these factors on the success of the StartUps experts' interviews were performed.

3.2 Data collection

A qualitative data approach was chosen from experts' discussions about StartUp development in Visegrad.

The study collected primary data from semi-structured experts' interviews and secondary data from the literature review, industry and market reports, and other online sources.

Qualitative data was collected using experts' interviews to have a better understanding of the development of the StartUp in Visegrad and what factors most determined the success of the StartUp.

Secondary data was collected through a systematic review of the literature and complemented by Industry Reports, key figures from the StartUp environment, news, and other online information.

3.3 Expert Interviews

The objective of expert interviews is to understand, from an expert point of view, the situation that StartUps go through in the Visegrad countries gathering valuable knowledge on which key success factors most positively impact StartUps.

Experts' were interviewed using semi-structured interviews. This kind of interview gives interviewees the freedom to respond freely as, at the same time, helps the interviewer to ask more questions if necessary about specific subjects (Saunders, 2010).

Also, semi-structured interviews allow the interviewer to maintain a line on the discussion based on a predefined set of questions which can be adjusted as the conversation evolves, especially when insights are valuable (Bryman, 2019).

3.3.1 Experts' characteristics

LinkedIn was chosen as the platform to find experts based on specific features such as: having worked in the StartUp's environment for more than three years. Twelve expert interviews were conducted: four Czechs, three Hungarians, three Polish, and two Slovaks.

<i>Interview Number</i>	<i>Country</i>	<i>Position</i>	<i>Industry</i>	<i>StartUp Revenue</i>	<i>Funding</i>
<i>1</i>	Czech Republic	Brand and Marketing Manager	Talent acquisition	-	-
<i>2</i>	Czech Republic	Product Manager	Information Technology	31 700 500	-
<i>3</i>	Czech Republic	Project Manager	Information Technology	31 700 500	-
<i>4</i>	Czech Republic	Director of Product Engineering	Information Technology	31 700 500	-
<i>5</i>	Hungary	Account Manager	Information Technology	5 831 710	-
<i>6</i>	Hungary	Co-Founder and CEO	Information Technology	-	1 000 000
<i>7</i>	Hungary	Marketing Director	Talent acquisition	-	5 000 000
<i>8</i>	Poland	Founder and CTO	Healthcare Sector	-	107 662
<i>9</i>	Poland	Founder and CEO	Healthcare Sector	-	3 768 180
<i>10</i>	Poland	CFO/Financial Director	Healthcare Sector	-	3 768 180
<i>11</i>	Slovakia	Sales Director	Information Technology	3 600 000	-
<i>12</i>	Slovakia	CEO and Co-Founder	Talent acquisition	< 1 000 000	-

Table 4 Experts interviewed

3.3.2 Interview's round

The questionnaire for the interviews was prepared after the exhaustive study done for the literature review. Interviewees' expertise about Czech, Hungarian, Polish, and Slovak market granted the opportunity to share their knowledge and opinions, during video-interviews or in written format. For all interviews, the script was delivered beforehand. All questions attend to explain the current state of the StartUp industry, government support, education role, and how direct investment in StartUps plays the most prominent part in StartUps' success.

3.4 Data Analysis

All the data were combined and calculated to understand which factors have the most impact on Startups' success. This application was complete based on the data collected from primary and secondary sources.

The answer to which country has presented the highest likelihood of success in the StartUp's environment was made through the key success factors studied. From this interpretation, the data were combined and calculated, thus creating the framework used.

4. Analysis and Findings

The first part of this unit focusses on the specific market conditions that StartUps need to be successful.

The second part focuses on the four emerging countries from the Visegrad Group: they are individually measured based on the determined KSFs.

Lastly, the four countries are ranked according to StartUps success using a framework

4.1 Key success factors of StartUps

Reviewing relevant literature and expert interview revealed the following Key Success Factors (KSF) as determinants for StartUp success.

KSF 1: Investment

Investments assume a prominent role. In Visegrad countries. It is possible to classify investments as necessary since an early stage of the creation of the company. Every StartUp needs financial supports to establish its ideas in the market. Having more investments per StartUps was considered beneficial as it increases their possibility of success from a regional perspective and extremely important to move to international markets. To conclude that this factor was fundamental, the Literature Review and the Experts' knowledge were used as a method.

KSF 2: Business/ Management Skills

Cooperation with experienced people with a solidly based knowledge about a business will increase the probability of success. It can promote the growth of sales, speed up the bureaucratic process and the needed tools to lead a company. It is important to hire experienced people because they will support business and bring more connections to StartUps. The networking and all the connection that experts can carry will unquestionably increase the success of any company. To conclude that this factor was important the Literature Review and the Experts' knowledge were used as a method.

KSF 3: Education

A further KSF is education. The ability to motivate students to be more creative becomes a crucial factor in driving them to learn and to be more productive and thus closer to success (Monderna &

Voinarovska, 2019). Besides this potential, the different perspectives on education can more or less leverage the success of StartUps, and this can be a dilemma in different countries (Skala, 2018). Most of those interviewed follow the same line of thought, as has been said so far. Education could have played a supportive success in StartUps, but the educational systems in the Visegrad do not motivate students to express their ideas. Educational institutes are conservative and changes in schools must be done. When reforms are implemented, education will be more critical to the success of StartUps. To conclude that this factor was necessary, the Literature Review and the Experts' knowledge were used as a method.

KSF 4: Entrepreneurship Spirit

StartUps only achieve success if everyone who works there is as willing as its founders. If the StartUps' founders StartUp does not express openly:

- their lines of thought,
- the motivations that led them to market their ideas,
- why their product/service is better than those on the market,

To their employees and potential clients/customers, the possibility of failure is higher. Recent graduates can easily identify the lacks in their respective markets, which leads them to have their ideas. There has also been a change in the way the people of Visegrad intend to have a professional career. Both reasons have driven growth in the number of StartUps created.

New ideas are continuously presented to countries. However they alone cannot lead to success and it is imperative to combine them with entrepreneurship spirit, experience and knowledge of business/management skills.

To conclude that this factor was necessary, the Literature Review and the Experts' knowledge were used as a method.

KSF 5: Government Support

Working side by side with local governments can promote the growth of StartUps faster but, above all, in a more controlled way. Central governments in each country should support the emergence of new companies by reducing existing bureaucratic processes. Thus speeding up how new companies can enter various sectors of the market using tools like tax/tax reductions or incentives

for new companies to enter. Governments must support new enterprises. Experts' knowledge contributed to clarifying the importance of Government Support.

4.2 The State and the potential success of Startups in Visegrad countries

The following section presents the results from the interviews with experts from Visegrad. The received material combined with additional knowledge gotten through secondary research provided a detailed overview of the current state and market potential for the success of StartUps in all countries.

Hungary

Hungary is a vibrant and stable country with an excellent geographical location. During the last decade, many technological StartUps have emerged. Several factors have sustained this growth.

Hungarian entrepreneurs understood that having people in their companies with excellent skills in management/business will make it easier for them to reach success. The paradigm shift in the way of making a career in Hungary leads to professionals, with several years of career in multinationals, who chose to work in StartUps helped new companies to hire experienced staff.

The founders of StartUps with less management/business experience ended up hiring skilled professionals in the areas of sales, marketing, human resources, because only with professionals with these qualities can success happen. Also, the Hungarian population itself became interested and began to develop the necessary skills to lead the sales, marketing, human resources departments, and putting all those disciplines in the heart of companies.

The greater ease and abundance of investment justify growth in the number of StartUp their highest chance of success. Large Hungarian companies lead investments, but the government has also created its mechanisms to help new companies grow. The political environment existing in Hungary nowadays raises some doubts. However, the leading party was two times re-elected since 2010, which allows investors to find that the “frame” of their investment is stable enough and can calculate with the return of their investment in the future well.

In Hungary, it must be noted the political stability and economic growth are an essential factor for people to start new businesses. This stability allows governments to create policies/programs (EU and the government) that are beneficial to companies such as KATA accounting for entrepreneurs

pushing many people to try doing business on their own based on the tax benefits. It is also noted that the government encourages foreigners to move to Hungary.

One of the changes that occurred in Hungary during the last decade was new graduates planned their careers. A growing spirit of entrepreneurship among students has led many to choose a different first professional challenge. The demand for work at StartUps has risen, thus changing the paradigm of going to work for multinationals. The entrepreneurial spirit has not only affected young people. Experienced professionals tired of working for multinationals decided to launch new ideas in the market.

A profound change occurred in Hungary in this last decade.

Hungarian illiteracy levels are non-existent. Hungarian school systems are not the best, but certainly very demanding from everyone equally. It is common for Hungarian schools to prepare their pupils with extensive factual knowledge, good rational thinking, and an outstanding level of mathematics. Despite the traditional way that educational institutions use not encourage/support on an entrepreneurial attitude of students, there are many very successful training camps in the country that provide a high-level technical education in a short time.

This combination of factors makes a higher likelihood of success for Hungarians who choose to create their own companies, the biggest between all the Visegrad Countries.

Slovakia

Competition between companies in Slovakia has grown; the number of registered companies has increased. Much of this increase is due to more investment in companies.

Education, as in other countries, has to undergo a sure reform. Despite this, there is a feeling that is one of the most critical factors. Education allows everyone to have access to knowledge that leads companies to success, giving more analytical and mathematical expertise and management/business skills.

The greater freedom that exists in education in Slovakia, compared to the other Visegrad countries, helps young people to develop ideas more regularly. There is a link between education and the entrepreneurial spirit of Slovak students. With a specific incentive for young people to develop

their ideas and a more exceptional facility to turn them into potential businesses, most graduates want to start their businesses.

Just like education, investments are one of the main keys for success in Slovakia due to ease access to funds. Investments are made at an early stage, allowing companies to establish their products or services on the local market.

Investments increase their importance in the later stages of business development. When companies are already established at a regional level, multinationals and banks take on a considerable role when investing in StartUps. Due to these investments on StartUps they can export their ideas to an international panorama, thus being closer to success.

It is in this phase of expansion that management/business knowledge takes on the most considerable importance. At a time when companies are beginning to gain expression this knowledge is essential to lead companies. However, there is a lack of sales skills on the part of Slovakian professionals, which brings the need to hire foreign professionals to complete the required tasks.

Regarding the government's support in the Slovak Republic, it can be seen that it plays a minor role, mainly because of the excessive bureaucratic processes involved in applying both on funding and facilities to set up new businesses.

Concluding: Even though existing a quality education that encourages students to express their ideas on potential ways to improve the market, the lack of support presented by the government and the notorious failures in areas related to management/business, does not make Slovakia the country with the highest likelihood of success.

Poland

The scenario in Poland is not very different from those analysed above. The number of new companies has grown. The entry of the 90 generations into the labour market has dramatically helped to increase the numbers. Technology evolution and ease of access have accompanied new generations. For companies to move from early stage, some factors help StartUps to achieve success more quickly.

Investment from the start is fundamental. According to experts, it is the primary mechanism for success. Finance is mainly achieved through European funds, as well as through Hubs, that have been set up in recent years. The high importance of investment has to do mostly with the great help it gives to the founders to market their ideas, making their products available to consumers.

In most cases, the investments contribute to an increase in the network of the founders. The possibility of sharing ideas with people who bet on the founders' beliefs, who already have some experience of the professional world, is also significant.

Business/Management skills are crucial to run a company. Every StartUp founder can have unique ideas, but if they do not have someone with experience in real business on their side to lead them on how to run their company, the probability of failure will increase.

In Poland, there was an attempt by governments to increase the number of StartUps. These policies involved lowering taxes, supporting funding, creating Hubs for founders to present their ideas to potential investors. There was a clear support from governments.

Young people have decided to label the stigma of going to multinationals. Entrepreneurship is intimate in the way this generation lives. They want to see their ideas in the marketplace. Many companies were created because of this wave. However, the lack of analysis on the part of young people has not helped them to understand all sorts of risks. Many companies did not survive the first phase.

There is an uncertain approach to the role of education in Poland. The idea that education is fundamental to lead a company to success is divided, on the one hand, into those who think it is imperative, and, on the other hand, those who base their opinion that only one idea is needed. Everyone agrees that education helps people to have foundations that are important in the way they work. However, the way schools work is not always the right one. Most Universities do not support the mind-set of StartUp; there is an apparent failure in preparing students in areas of material marketing and business skills that will enable them to create a successful company.

Czech Republic

The StartUp scene is growing at a reasonable rate mainly since the entering of millennials in the labour market.

After the fall of the Berlin Wall, the Czech population has had access to a broader range of theories, ways of working. Czechs with great ability have since wanted to expose their ideas, take risks.

Direct investment is undoubtedly a fuel for the success of StartUps anywhere in the world, even if it means that control of the company passes from the founders to other people. In the Czech Republic, investments have a different weight because most StartUps suffer from software development. However, in the Czech Republic, most investments are not in the right field of business. International venture capital funds play a crucial role in their international development. For a StartUp to become global in the Czech Republic, it is necessary a large amount of funding behind it, however reports present that there is a low share of venture capital as a source of funding. Nevertheless, the significant acquisition of a company when it receives financing is the knowledge that the people who invested bring to the company; this knowledge can lead the StartUp to achieve success more quickly. This knowledge can be called a "business approach." It is not necessary to have a specialized education but an entrepreneurial mindset. To lead the StartUps it is essential to develop skills that are only formed when working in departments such as sales, marketing, human resources. It will only be possible to get such skills by hiring experienced professionals, who start to appear in Czech territory.

It is noteworthy that, for Czechs, the most crucial thing in the success of a StartUp is the notion that the base-idea from where the company came is good and clear. Then if everyone who works for this idea is highly skilled, success will appear. Not needing much theoretical knowledge about everything but always having a sense of what made people fail previously. Entrepreneurship Spirit is not the higher ever registered. However, the transformation in the economy, the rise of new businesses model prior tested by successful entrepreneurs, combined with the courage of new generations, is ideally unique. Also, due to the growth of StartUps, coworking spaces, and the global StartUp environment Entrepreneurship Spirit grows.

Education, to a certain extent, helped the development and success of StartUps in the Czech Republic. It is vital because it provides resources to students' ideas. It should also be noted that education has enabled many students to study in other countries, helping them to experience new cultures. Get in touch with different ideas allows them to know what is missing in local markets. Many StartUps founders "imported" business ideas that led them to success. Even though the

growth felt in recent years in terms of education, there is still a long way to go, since the methods used are very traditional forcing students to go to foreign countries to grow as better professionals.

There is a mix of opinions regarding the support of government institutions. It can be concluded that governments do not create many policies helping StartUps to succeed, and those that do exist are full of bureaucratic processes when it comes to receiving funds. However, it is essential to state that the government has created a Hub under the name Czech StartUps which helps StartUps grow, although still limited.

The fact that there is an apparent failure on the part of governments to create mechanisms to support the sustainable growth of StartUps means that the likelihood of success is lower.

4.3 Analysis

All the data were combined and calculated to understand which factors have the most impact on StartUps' success. This application was complete based on the data collected from primary and secondary sources, and it was characterized from "Extremely Important" to "Not at All Important" (ranging from 1-5), the degree of importance was calculated based on how it was referred in the data collected. The different types of data collection have different weights for the relevance of the study. Expert's interviews weighted 75%, and the Literature Review weighted 25%. In the table below, there is a summary of the main findings and their importance.

<i>Importance</i>	<i>Determinants</i>	<i>LR</i>	<i>EI 1</i>	<i>EI 2</i>	<i>EI 3</i>	<i>EI4</i>	<i>EI 5</i>	<i>EI 6</i>	<i>EI 7</i>	<i>EI 8</i>	<i>EI 9</i>	<i>EI 10</i>	<i>EI 11</i>	<i>EI 12</i>	<i>TOTAL</i>
		25%	6,25%	6,25%	6,25%	6,25%	6,25%	6,25%	6,25%	6,25%	6,25%	6,25%	6,25%	6,25%	
<i>4</i>	<i>INVES</i>	1,0	0,2	0,3	0,3	0,3	0,3	0,3	0,2	0,1	0,3	0,3	0,3	0,3	3,9
<i>3</i>	<i>BUS/MAN</i>	1,0	0,1	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,1	0,2	0,3	0,0	3,6
<i>3</i>	<i>EDU</i>	1,3	0,3	0,1	0,1	0,3	0,2	0,3	0,1	0,2	0,2	0,0	0,3	0,3	3,5
<i>3</i>	<i>ES</i>	0,8	0,1	0,2	0,3	0,3	0,2	0,2	0,3	0,1	0,2	0,3	0,3	0,3	3,3
<i>2</i>	<i>GS</i>	0,0	0,0	0,1	0,1	0,3	0,3	0,2	0,2	0,2	0,0	0,3	0,0	0,3	1,8

Table 5 Weight Average of the different Key Success Factors

A similar method was used to understand which country has the best chances of success within states. This application was complete based on the data collected from primary and secondary sources, and it was characterized from ‘‘Extremely Important’’ to ‘‘Not at All Important’’ (ranging from 1-5), the degree of importance was calculated based on how it was referred in the data collected. The different types of data collection have different weights for the relevance of the study. Experts interviews weighted 80%, and the Other Reports weighted 20%. In the next tables below, there is a summary of the main findings and their importance.

<i>Importance</i>	<i>Determinants</i>	<i>Expert Interview</i>	<i>Expert Interview</i>	<i>Expert Interview</i>	<i>Expert Interview</i>	<i>Other Reports</i>	<i>TOTAL</i>
		1	2	3	4		
		20,00%	20,00%	20,00%	20,00%	20,00%	
4	<i>INVES</i>	0,6	0,8	0,8	0,8	0,6	3,6
3	<i>BUS/MAN</i>	0,2	1,0	0,8	0,8	0,6	3,4
3	<i>ES</i>	0,4	0,6	0,8	0,8	0,6	3,2
3	<i>EDU</i>	1,0	0,2	0,2	1,0	0,8	3,2
2	<i>GS</i>	0,0	0,4	0,2	0,8	0,2	1,6
							15,0

Table 6 Weight Average of the different Key Success Factors in Czech Republic

<i>Importance</i>	<i>Determinants</i>	<i>Expert Interview</i>	<i>Expert Interview</i>	<i>Expert Interview</i>	<i>Other Reports</i>	<i>TOTAL</i>
		5	6	7		
		26,67%	26,67%	26,67%	20,00%	
5	<i>BUS/MAN</i>	1,3	1,1	1,3	0,8	4,5
4	<i>INVES</i>	1,1	1,1	0,8	1,0	3,9
3	<i>ES</i>	0,8	0,8	1,1	0,8	3,5
3	<i>EDU</i>	0,8	1,3	0,3	0,6	3,0
3	<i>ES</i>	1,1	0,8	0,8	0,0	2,7
						17,6

Table 7 Weight Average of the different Key Success Factors in Hungary

Importance	Determinants	Expert Interview 8	Expert Interview 9	Expert Interview 10	Other Reports	TOTAL
		26,67%	26,67%	26,67%	20,00%	
4	INVES	0,5	1,3	1,3	1,0	4,2
4	BUS/MAN	1,3	0,5	0,8	1,0	3,7
3	EDU	0,8	0,8	0,0	1,0	2,6
2	GS	0,8	0,0	1,1	0,6	2,5
2	ES	0,5	0,8	1,1	0,0	2,4
						15,3

Table 8 Weight Average of the different Key Success Factors in Poland

Importance	Determinants	Expert Interview 11	Expert Interview 12	Other Reports	TOTAL
		40,00%	40,00%	20,00%	
4	EDU	2,0	1,6	0,8	4,4
4	INVES	1,6	2,0	0,8	4,4
3	ES	1,6	1,6	0,0	3,2
2	BUS/MAN	1,6	0,0	0,0	1,6
2	GS	0,0	1,6	0,6	2,2
					15,8

Table 9 Weight Average of the different Key Success Factors in Slovakia

RQ1: Which factors have a more significant impact on the success of StartUps in the countries of Visegrad?

Interviews with the Experts and the data collected for the Literature Review found that there are factors that have a more significant impact on the success of StartUps in Visegrad countries. The growth of StartUps in Visegrad has been considerable. Access to finance for new companies has become an essential factor in the success of companies. Education may play a significant role in Visegrad countries, but for this to happen, reform will have to take place. Entrepreneurship is not as important as in other times, as there is a particular facility to introduce new ideas in the respective markets. Knowledge in Business/Management is not so necessary because it is directly related to the factors mentioned above. Finally, government support appears as a factor that has some impact on StartUp.

RQ 2: Which of the four countries presents the highest likelihood of success?

The interviews with the Experts made it possible to understand which of the Visegrad countries has the highest chance of success in the creation of companies. The success is concluded by the sum of each of the factors in each state. It was then found that Hungary is the country where there is the highest probability of success for the StartUps among the Visegrad countries, much due to the Business/Management Skills that the population has, as a more significant "ease" in the search for new investments allow companies to establish themselves in the market.

5. Conclusions

5.1 Main Findings

The study showed that StartUps concept has increasingly coming to be known among the Western population and gained importance/popularity among the community of emerging European markets.

Studies prove that more and more professionals are choosing to make their careers in StartUps. The rate of growth of new companies registered in Visegrad between the years 2012 to 2017 exceeded the EU28, the four countries helped to make this possible, but the figures recorded in the Czech Republic and Hungary stand out.

Although the Starting Business scores of the V4 countries are below the OECD values, the performance of the V4 countries is positive " An economy's ease of doing business score is reflected on a scale from 0 to 100, where 0 represents the lowest and 100 represents the best performance"(Doing Business, 2019)

The analysis was chosen to understand which of the four countries has the most significant potential among the four Visegrad countries, with Hungary having the most potential.

Hungarian businesspeople bet on hiring professionals with excellent management/company skills, as they realized that they needed to be guided. Adding to this, young people with the necessary skills began to enter the labour market. The greater ease and abundance of investment in much help justify the growth of the number of StartUp and the highest probability of success. In Hungary it should be noted that political stability enabled the government to create policies/programs that are beneficial to businesses. There has been a growth in entrepreneurship among students and professionals. Finally, the traditional teaching method plus the training fields that exist in the country have resulted in better-prepared students.

Next to those results is Slovakia. Education in Slovakia, compared with the other Visegrad countries, helps young people to develop ideas more regularly. There is a link between education and entrepreneurship of Slovak students. As businesses grow, investments gain in importance, multinationals and banks take on a role in exporting products to the international scene. As companies start to increase expression, solid knowledge of good leadership practices, marketing,

sales and human resources are essential. However, there is a lack of sales skills on the part of Slovak professionals. In the Slovak Republic the influence of the state is less felt mainly because people wearies the long bureaucratic processes both in applying for funding as in setting up new companies.

In Poland investments from the start are critical. According to experts is the primary mechanism for success. Investment is achieved mainly through European funds. Business/management skills are crucial to running a company. Nevertheless, there is still a long way to go for the general population to acquire these skills. Although the government allows for agility in receiving financial support through the creation of Hubs. The failure attempts a tax reduction, which causes the role of the state should be rethought. Young people decided to label the stigma of going to multinationals. Entrepreneurship is intimate to the way this generation lives. They want to see their ideas in the marketplace. The gaps in the Polish education system registered do not allow that population to gain the proper knowledge.

In the Czech Republic, investments have a different weight because most StartUps suffer from software development. International venture capital funds play a crucial role in their global expansion. It is necessary to develop skills to lead StartUps, only formed when working in departments such as sales, marketing, human resources, the Czechs have started to invest in these areas. Entrepreneurial Spirit revalued by new generations, in the form of courage – without fear of failure – in line with the StartUp environment registered in Czechia helped increase the number of StartUps. Educational institutions provide mechanisms that give their students the chance to present new ideas. However, it has turned out that traditional teaching methods are still used. The massive bureaucracy imposed by the government does not help the success of StartUps. However, the Hub of support for StartUps is noteworthy.

5.2 Managerial Implications

Visegrad Group countries are closer to having similar numbers of success compared to the more developed European countries.

The trend towards a preference for StartUps in V4 countries will continue as the population increasingly chooses this path. There is not only a strategy that founders should establish to

improve the performance of their companies, but there are some enablers for a better path to success.

The first enabler that founders should take into account is a strong sense of the environment in which they find themselves because that is the only way they can create an idea of success. The founders should work primarily on how they will convey their ideas to potential consumers. For this to happen, the founders must be as academically prepared as possible because that is the only way they have been able to maintain their business and make success a reality.

The second enabler has to do with investments in StartUps. In Visegrad there is absolute ease in obtaining financing. However, the founders should understand which finance programs will improve the results in their companies. Best investments are those where there is an acquisition of two different capitals, financial one and economical. Those are the investments that the founders should accept since their likelihood of success will improve.

When the analysis is divided by country, it is concluded that investment always appears as a central point for success. An excellent review of potential funding is essential for success.

It is crucial in Slovakia that StartUps members have a first academic degree, as it will be easier to achieve success and a way to attract potential investors to bet on the ideas of the companies.

In Hungary, hiring experienced professionals is crucial. Experts help companies to work better, from the way they are led to the best way forward. Investors seeing serious professionals in StartUps may want to invest more efficiently.

In the Czech Republic, as in Poland, the scenario is a little different. The entrepreneurial spirit assumes a more critical role. Therefore, investors have to feel that spirit present in StartUp workers. They need to believe in their ideas and understand what is lacking in the markets. This way, the financing will be easier to acquire.

5.3 Limitations & Potential for Future Research

Regardless of the contributions that the present study provides, it has limitations. Regarding the sample, the main limitation is that the number of experts' interviews per country is different does not facilitate the analysis and conclusions. It is also important to point out that if there were more

dispersion of companies where experts work, the results could be more realistic since the reality would be different.

Further research should have a larger and more representative sample of the Visegrad population; a questionnaire should be made out to the community. Also have more expert interviews from different StartUps is vital because only then will it be possible to improve the range of results.

Additionally, the present study is focused on five critical factors for the success of StartUps; further research should study other potential factors. Furthermore, future researchers should try to understand different performance strategies that StartUps used to accomplish success. This study has not analyzed in depth which strategies StartUps should choose to control the various challenges they will face in their respective markets better.

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7. Appendix

Appendix 1 Experts Interviews Guidelines

Below are the topics that were brought up during the expert interviews.

Warm-Up

I will start this interview by asking general questions about Visegrad Group and your experience in Start-Ups in the countries that belong to V4.

1. What can you tell me about the start-up scene in your country?
2. When did you start notice that Start-Ups were increasing in your Country?
3. What do you think about this rise of Start-Ups?

Core

Next, I will focus the interview to understand if the factors that I choose to study are an explanation for this increase in the number of successful Start-Ups in the Visegrad.

4. For you what are the main factors that justify this increase?
5. What role do you think education plays this increase?
6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?
7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?
 - a. Were policies practices by your government that justify the increase?
8. Do you feel that the entrepreneurship spirit is higher in the recent years?
9. What are the main obstacles that Start-Ups will face in the next years?
10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

Cool Down

11. Do you want to add something else?

Appendix 2 Expert 1

1. What can you tell about the start-up scene in your country?

As any generalization, this is hard. To make it even harder, I usually talk with people only around technology related startups. In this area, I rarely see a completely new idea to be honest, best generalization of the startups here would be that some proven ideas from US is being tested in our environment.

2. When did you start notice that Start-Ups were increasing in your Country?

I'd say that the unencumbered generation of young people has finally arrived. Before they start work in some corporations, they try their own things and even a lot of my colleagues are trying to start their own project. Therefore, as a result of more people trying, there is a more people succeeding as an entrepreneur.

3. What do you think about this rise of Start-Ups?

N/A

4. For you what are the main factors that justify this increase?

So, young people, not afraid of trying things are the factor number one in my book. And perhaps examples that you can do it from my own generation, people who have succeeded in creating their own companies.

5. What role do you think education plays this increase?

Huge. By unencumbered I mean mainly that the new generations are more open, have experience from schools abroad and were raised in better schools. I think that new EU related programs like Erasmus are big reason why we have this generation of people.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

No. Actually most of the successful entrepreneurs I know started with very little theoretical knowledge. I know that e.g. some lean startup techniques would help them greatly, but I think that with drive and ability to learn from failures you are better off than with theoretical knowledge without the inner force of driving things forward.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

Depends on what is a direct investment definition. It is definitely venture capital buying into new companies what is a fuel for the successful start of any company, anywhere in the world.

- a. Were policies practices by your government that justify the increase?

No, definitely not. These are mostly for wrong type of investments like automotive industry.

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

I wouldn't say so. I think that now is the time when some of the startups "make it" - turn to some high valuation. I think the current wave came like 10 years ago.

9. What are the main obstacles that Start-Ups will face in the next years?

Guess those will still be the same: regulations, bureaucracy, China copycats.

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

To be honest, most big corporates just burn money in the area. Even the startups bought by bigger companies usually die in a few years and the core people abandon them. I think the reason is that more capable people don't want to spend their life living in those organizations. I know about some exceptions though, with great people on the side of big corporates.

11. Do you want to add something else?

Well, the question itself is worth validation. Is there something like V4 startup scene? It is easy to draw the line between startup here in Prague and one in Berlin or Riga, but the people I know are essentially the same. There are some countries where startups does not thrive and the question might be why, but this is far beyond my knowledge. I don't see any common factor here.

Appendix 3 Expert 2

1. What can you tell me about the start-up scene in your country?

StartUp scene is getting bigger and bigger. Exist two types of StartUp founders – young people (millennials) with good ideas that do not want to work in multinationals; and, experience professionals that work for years in big corporations and realize that they want to have their own company.

2. When did you start notice that Start-Ups were increasing in your Country?

It got bigger a few years ago; StartUps emerge during the last decade

3. What do you think about this rise of Start-Ups?

N/A

4. For you what are the main factors that justify this increase?

To create a company it's not that difficult, because it is just need someone to back up your idea. Lead the StartUp is the hard part. Someone with experience, field experience, marketing experience, business experience is fundamental. Because will help founders rolling StartUps.

StartUp incubator are fundamental, because allow people to present their ideas to potential investors with a lot of experience.

Czech people understood that working for multinational companies at some point is not beneficial.

5. What role do you think education plays this increase?

Schooling systems CR is not the best one, because do not encourage students to have their personal opinions. However, the way natural sciences are taught in Czech Republic are recognized in every part of the world.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Successful cases of StartUps without any type of guidance exists, but is always better if founders have someone leading or mentoring them, because will help them to not enter in bankrupt in the short time.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

If a StartUp wants to get global will definitely need foreign investment. Capital appears, in the majority of the time from companies that are not from CR. To introduce new ideas in local or global markets capital will be needed. When StartUps are suffer a lack of software developing, investments are vital to their survivence.

- a. Were policies practices by your government that justify the increase?

N/A

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

N/A

9. What are the main obstacles that Start-Ups will face in the next years?

StartUps are emerging more and more every day, and the market, may be over saturate. The actual workers of StartUps will leave in couple years to create to their own business

12. What role do you think multinationals have in the success of StartUps (Supporting, M&A process)?

N/A

10. Do you want to add something else?

Czech Startups can compete with every company in the world. Right ideas and the right people on the boards are half to reach the success.

Appendix 4 Expert 3

1. What can you tell me about the start-up scene in your country?

The start-ups that are most visible to me are from the IT industry (plus AI in the last year let's say) but there are many also in other industries where (mostly) young people were able to find something that was missing on the market.

2. When did you start notice that Start-Ups were increasing in your Country?

Since 2012 I think the scene has grown rapidly with many people being motivated to start their own business as they saw the other ones succeed.

3. What do you think about this rise of Start-Ups?

N/A

4. For you what are the main factors that justify this increase?

In my opinion one of the strongest factors of rising of start-ups is the model of previously successful entrepreneurs combined with courage and ideally unique business idea - this goes together with higher entrepreneurship spirit - the factors are the same.

5. What role do you think education plays this increase?

Education is not the most important at this phase, for example founder of Socialbakers didn't even finish college and currently is one of the most successful entrepreneurs in our country (being nominated among 30 under 30 by Forbes).

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Important is to find high-skilled, experienced and potentially educated co-workers in the later phases in order to expand and transform the start-up into something bigger.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

For the start-up to be successful I think the foreign investments are important even if that means that the control of the company goes from the founders to other people - it is important for the growth plus for transferring of the knowledge in given industry

- a. Were policies practices by your government that justify the increase?

In our country I don't think there is any government policy that would help start-ups to be created or ran, the bureaucracy for founding a company is the same for all.

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

N/A

9. What are the main obstacles that Start-Ups will face in the next years?

In the years to come I believe start-ups will have to fight with limited market space as their number will rise in order to attract potential investors

13. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

N/A

10. Do you want to add something else?

N/A

Appendix 5 Expert 4

1. What can you tell me about the start-up scene in your country?

From my point of view the startup-up scene in the Czech Republic is quite active, especially in tech, software and IT related area. It is growing fast right now. As my country offers really talented and smart IT developers, lots of startups use their services and focus on software or apps development. Many startups call coworking spaces (such as HubHub) their

home. One of the best examples is current “best” Czech startup Productboard (former member of HubHub), which recently raised a \$45 million Series B funding round from investors led by Sequoia Capital and Bessemer Venture Partners. They are one of Silicon Valley’s buzziest startups right now. We can see a high increase of coworking spaces as well, which are connected to the startup scene and used by many startups.

2. When did you start notice that Start-Ups were increasing in your Country?

Just a few years ago, when Kiwi.com became popular. With the rise of coworking spaces it became much bigger topic. And also new tech trends helped to develop new startups (such as cryptocurrencies, VR, AR, blockchain etc.).

3. What do you think about this rise of Start-Ups?

It’s a great opportunity for Czech economy and Czech inhabitants. As I mentioned, Czech Republic is known for very good IT/software developers, so it’s like a basket of talented people for international tech startups. It also brings big names (corporations, famous startups) and VC funds to the Czech Republic. It helps many corporations to act and innovate faster than before.

4. For you what are the main factors that justify this increase?

In terms of Czech Republic, it’s the fact that our country is great for hiring talented IT (software)-related employees, there is a huge potential in this area. Next factor is the location in central Europe, attractively of Prague and presence of many important international companies (corporations). Then stable and relatively fast-growing economy and still many opportunities for new business ideas.

5. What role do you think education plays this increase?

Education plays an important role, because it provides a basis for well-educated professionals from the area I mentioned before (IT, software development etc.). So universities are sources of talented people for the startups.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

I think it's necessary to have "entrepreneurial approach". It's not necessary to have special education, but it deserves hard work and business mindset. To lead one of the startups it's necessary to develop the same skills as you develop when you are leading every company (not only startups, but also corporations etc.). So it means leadership skills, business-oriented mindset. When you are a natural networker, it helps a lot as well, because in startup environment you have meetings with lots of investors, potential business partners and even corporations. So it's good to be a "salesman" and develop this kind of skills too.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

Successful Czech or international startups working at HubHub in the Czech Republic are not in the early stage phase, so they seek for top international investors/VC funds. So I would say international VC funds play key role in their development internationally. We focus mainly on fast growing startups, well-managed and with a big potential. But I have never experienced any role of government in this area at HubHub. There is a pretty active state organization called CzechInvest. The Investment and Business Development Agency CzechInvest is a state contributory organization subordinate to the Ministry of Industry and Trade of the Czech Republic. The agency arranges for the Czech Republic both domestic and foreign investments in the areas of manufacturing, business support services and technology centers. It also supports small, medium-sized and innovative start-up companies, the country's business infrastructure, and innovation. They have a "division" called CzechStartups. They support CZ startups a lot, playing a key role for many young and small startups. They connect them with potential investors and investments. However most of the startups at HubHub and other successful tech startups I know have already overgrown this phase or they are using their own channel to find an investor.

- a. Were policies practices by your government that justify the increase?

CzechStartups (CzechInvest) definitely helps to grow startup scene in the Czech Republic, their support is significant.

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

I would say that the entrepreneurship spirit was the highest in early 90s. But it was a different story (transformation of economy). In “new era” of well-developed economy I would say that nowadays is the time, when the entrepreneurship spirit is growing the most. Thanks to the growth of startups, coworking spaces and the startup environment in general.

9. What are the main obstacles that Start-Ups will face in the next years?

From my point of view for some of the companies it might be Brexit issues (for those operating in the UK or in business contact with companies from the UK). There might be also new tech trends they will be facing. The world is developing fast, so they have to keep the pace and work hard. Potential economic crisis would affect startups as well and some of them might just disappear.

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

From perspective of a coworking space, their role is extremely important. We do have members from startups, freelancer area, but also from corporations. And we are trying to connect them. Actually corporations use the services of startups in terms of innovations (as they cannot innovate that fast and effective as startups or they do not have that specific and talented people). So multinationals are frequent customers of startups (e.g. apps development for banks, product management tools development etc.). We do have a nice example of Tatra banka (part of Raiffeisen Group). They use the space in our Slovak HubHub and also use the services of startups there (in terms of innovations etc.).

11. Do you want to add something else?

I would like to add that relevant workspace and the community is really important for all the startups and their development. That’s why we run coworking spaces called HubHub. All the startups here make a connected talented community, we are supporting them and giving them the chance to learn new things, attend relevant events and use the community as a networking group or a chance to connect with other interesting startups, corporations and students. In the end all of the subjects mentioned above are growing.

Appendix 6 Expert 5

1. What can you tell me about the start-up scene in your country?

Hungary is a secure, economically stable country with great geographical location within Europe, yet still accesable from the East too that has high potential for start-ups too.

2. When did you start notice that Start-Ups were increasing in your Country?

The increase of start-ups came with the global flow a few years after the economic crisis around 2011-2013. Many digital and IT companies were started back then.

3. What do you think about this rise of Start-Ups?

I don't really have any thoughts on this. This is a result oriented competition and those survive on the long-term who can show something unique, or can attract big investors fast enough to survive onwards.

4. For you what are the main factors that justify this increase?

There are quite several. In V4 countries it's enough to look at levels of education, and illiteracy levels which are virtually non-existent. Our school systems are not the best, but certainly very demanding from everyone equally so I would say people in general have a very broad factual knowledge and good rational thinking. Mathematics has I believe a much larger emphasis on average than other EU countries overall during the school years. This however has a bad part too: analytical thinking generally is missing from people.

Several youngsters decided going abroad to other EU countries earlier to try luck abroad and whilst working in UK, Germany, the Netherlands they got themselves familiar with analytical thinking and business opportunities. They learnt best-practices and having moved home started their own businesses.

5. What role do you think education plays this increase?

Answered in previous question - I personally think that very large part.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Yes, but I think your connections are far more important than your skills. You might be very talented of course, but if you are not able to find your investors to survive or even to find your own partners to start the start-up with, then your additional skills are not worth anything. “Connecting the dots”, meaning that you find people with mutual interests through networking however is crucial.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

Could be of course. Investments started finding V4 and Hungary in recent years.

- a. Were policies practices by your government that justify the increase?

Yes. Actually FDI likes political stability and economic increase and they certainly are able to find here. The current, Orban government was 2 times re-elected since 2010 and I assume investors find it important too to know that the “frame” of their investment is stable enough and can calculate with the return of their investment in the future well.

Regarding their policies, the KATA accounting for entrepreneurs was certainly a huge success in the previous years, pushing many people to try doing business on their own based on the tax benefits of this type of taxing.

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

I don't quite notice it personally, but certainly Hungarian companies are more connected internationally than 10 years ago for example.

9. What are the main obstacles that Start-Ups will face in the next years?

Even though the country's economy is stable and it is in the region too, unfortunately growth is limited by the aging and decreasing population. Whilst at the same time this is a European general problem too, unlike Germany or France which gives space to large amounts of Middle-East originated individuals to enhance the operation of their service sector and huge auto industry, the V4 countries are not open to re-shuffling their labour market with non-European immigrants.

The lack of solution however on how to solve the requirement of more and more professionals will certainly affect the growth opportunities in the future. What's more, many V4 citizens leave their country for jobs that offer higher salaries in EU.

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

I think startups and multinationals are quite different in means of operation, but certainly several entrepreneurs bring their knowledge with themselves when leaving large enterprises. Multinationals at the same time can be partnering with startups for mutually beneficial projects that may contribute to their success.

11. Do you want to add something else?

In Budapest we experience a huge surge of incoming EU citizens, let it be as tourists or expats working here. This I think shows a still growing tendency and these little signs also show the general trust in the country's capabilities for further growth and opportunities. Depending on the velocity of the current ongoing economic transformation of the world and the power-shift towards the East, in a decade or two Central/Eastern Europe will be the leading economic region of Europe due to its closeness to China, Russia and other Silk Road countries.

Appendix 7 Expert 6

1. What can you tell me about the start-up scene in your country?

Budapest has a nice location and can attract foreign investors and local ones. Good incubators emerge in Hungary. The primary investment is good in Hungary, but with moving of the years for organizations the funds are more difficult to get..

Very important to move a step to international environment to get a good investment and the origins of that investments came from another country.

Hungary is a good place to set up, because the costs are lower...lower wages, lower rents...but if you want to get to grow up Hungary StartUps need international relations, and more senior executives, who understand the network in foreign countries!

The network that start ups get from the investors is more important than the direct investment

2. When did you start notice that Start-Ups were increasing in your Country?

Last 5 to 10 years, active community around StartUps.

3. What do you think about this rise of Start-Ups?

It's cool for young people who want to develop and learn in a faster way (one month in a start ups equals to three months in a normal company, it's easier to "climb faster the leaders?"), and nowadays its common that young graduates prefer to start their careers working in start ups...we can check that occurred a change on the mindset of graduates, because in the first decade of this century the objective was to get an entry level job in multinationals

4. For you what are the main factors that justify this increase?

Investment is a big factor! If you have good ideas you can easily can get an investment...education segment stidents, because doesn't allow students to have their own ideas

5. What role do you think education plays this increase?

Hungary educations is very traditional, very conservative, schools doesn't encourage students, doesn't support the entrepreneurial attitude. Graduates that work in start ups they usually the outliars, the ones that want to scape from the regularly life time. Start ups are more for revolution people. Generation are aware of the multiple choices that nowadays they can have...for older generations is more difficult.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Age is not an additional skill is more about maturity....if you are a shy person you will always the guidance from experience persons...normally to create a successful start up you need to already failed in some step of your professional life. You can failed by our own business or set rip from multinationals or tired drom the life that multionalts bring to you.

Unique ideas is not necessary to create or lead a start up, because its easy to copy...you need to know how to lead a team, how to manage a team ect... you will failed with unique ideas.

And if you have regular idea, but you know how to execute things well, you can be a strong player in the market.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

Direct investment very important!

a. Were policies practices by your government that justify the increase?

In hungary existed programs (eu and government) that help companies to start their own business. In hungary is to easy to establish in the local, because the lower rentsand governments incentivate foreign people to move to hungary

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

The big changes in hungary were after the fall of berlin wall, because that fall let to a big boom, changing a lot the believes of every Hungarian, that was the first movement of people that increase the entrepreneurship spirit. Nowadays that first generation is retiring. And the second generation are now completing their studies or are recent graduates and are choosing this path because was what they saw when were kids.

Its important to highlighted that the movements on the markets allow people to create their business more easily.

9. What are the main obstacles that Start-Ups will face in the next years?

Main challenges will be more hiring the right people and getting them in board, because people will know that why they will go to a start up when they can choose to embrace a less risky challenge, like work in a multinational – companies that are establish in the markets – where the life will be less stressful. Other challenge is that start ups are paying less to to their employees.

Hungary is a small market, can be good test market, but is difficult to step to other markets and Hungarian language is consider a barrier, because everything should be translated o everyone.

And Hungarian market is not the most attract market, comparing with us or uk markets

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

The big multinationals – banks, assurance companies, oil companies - are more for PR process and are not the best incubators. The companies that are more focus on getting people from uni, that have a more contact with students are more incubators, because provide more knowledge on how you should manage or lead companies in different scenarios.

Normalyy the bog multinationals are not really interested in fully invest in start ups, companies just to clean there image...sometimes big corporations use the labs to test their own ideas, they don't take the risk, because can affect their own brand or their own image

11. Do you want to add something else?

StartUps are very good for innovation, to develop people...but nowadays the investors are putting more pressure.

Appendix 8 Expert 7

1. What can you tell me about the start-up scene in your country?

Startup-scene in Hungary is very vivid, with various technology and not technology-related startups.

2. When did you start notice that Start-Ups were increasing in your Country?

About 10 years ago, there were entrepreneurs who were encouraging others to start their own business. Startup as a name was not very well-known then, so we used the term small business instead, but the essence of it was the same - start it with an idea that the market needs but don't have (preferably), find investors and try, if you fail, try again, if you fail, try again etc.

3. What do you think about this rise of Start-Ups?

N/A

4. For you what are the main factors that justify this increase?

Humanity has a lot of problems, but we are at the point of technological development that basically every problem could be solved if somebody makes the effort to deal with it. We don't have time to wait for the good old multinational companies to solve these problems as they are quite sluggish and bureaucratic, and anybody who has an internet connection and a computer has all the resources to make the research and has an opportunity to solve these problems.

5. What role do you think education plays this increase?

Education is extremely important, on the side of the traditional educational institutions, there are quite a lot of very successful boot camps in the region that provide a high-level technical education in a short period of time. As everyone wants to earn a lot of money, and developers have the highest salary, the math is quite simple. And if one has the resources, the knowledge, boom, there is a startup founded.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Be a very good generalist. If you want to be a successful startup's CEO, you have to have a solid base knowledge about business, finances, technology, and marketing - and also you have to be a people's person, as social capital is also indispensable.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

Not necessarily, as Hungary has its own great venture capitals.

a. Were policies practices by your government that justify the increase?

Sure, there the government supports - directly and indirectly as well - these kinds of initiatives.

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

Absolutely! reasons: see above

9. What are the main obstacles that Start-Ups will face in the next years?

If I'd knew that I would found a startup that deals with this, and the solutions as well :) so as I am not an oracle, I can only guess. But maybe because the numbers of the startups are increasing, the competition may be greater in the future (and can be a bigger chance that startups are stepping on each other's feet all the time).

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

Absolutely! reasons: see above

11. Do you want to add something else?

N/A

Appendix 9 Expert 8

1. What can you tell me about the start-up scene in your country?

It's still an emerging scene in my opinion. Number of startups grows, but we're still learning how to actually do business within startup model of funding.

2. When did you start notice that Start-Ups were increasing in your Country?

Around 2015 I think. There was a handful of startups before 2015, but the community didn't seem to be big back then.

3. What do you think about this rise of Start-Ups?

I have a mixed opinion. On one hand it's nice that young (usually) people try to start business and to change something, on the other hand I think that starting a company by

unexperienced people doesn't end well typically. I know how little I knew when we started our company. Also many ideas that startups provide seem to be shifted to the “make money” goal, and I'm quite idealistic and I would like to see for these companies to actually make at least a small change and make other people life easier.

4. For you what are the main factors that justify this increase?

One: it's popular, and there's a hype around the scene (even though right now it's slowing down a bit due to the mediocre success of startups). “Unicorn” cases work on imagination of investors and young prodigies quite well.

It's the easiest way to actually start implementing ideas, especially for young citizens. If you go working for a big company, it's usually hard to do that (i.e. you work on the ideas that others have).

I'm not sure if there're big factors in terms of economy, beside the fact that startups create many open positions, so the money flow between funds and the whole economic environment just works, and money get reinvested.

Bigger companies got interested in creating accelerators and fund startups. I think it's easier to implement ideas that do not have a direct connection to the main branch of business with usage of startups than inside the company.

5. What role do you think education plays this increase?

I'm not sure if you mean education about the startups, or education that people get before starting a company.

Regarding the first case, I think it's played a big part, especially stories from silicon valley. People tend to remember special case more, even though statistics show something a bit different regarding the success of the companies.

Regarding the second phase, I'm not sure if it changes much. I think it's more to do with the general familiarity with the startup model, rather than education of individuals.

I see more “general” startups than specialized ones, which is logical as quite many startups are founded by young people, therefore it's hard to become expert without getting experience in the first place.

With more mature people that found startups I think experience is a much bigger factor than education itself, although for most of the cases I know, most of the founders attended and finished education at the university level.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Right now I can't imagine running startups without a few several types of skills.

For me it's crucial to have someone experienced in “real” business to run successful company. The same goes for project management and operations overall.

Product/technology part is important as well, but technology doesn't telly you whether you can not monetize the idea as a company.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

Hmm, I'm not sure I have an opinion on this one

- a. Were policies practices by your government that justify the increase?

Government tried to increase the number of startups by giving the companies possibility to pay much lower taxes, and they create a list of “areas of focus” regarding the technological companies. There was (is) program that aimed at increasing number of accelerators in Poland, but I'm not sure what the current state of this is, and whether it's working well or not.

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

In Poland it's actually a bit lower I think (here I'm writing about the overall scene), but for startups it might have increased, I'm not sure.

Government made a life of a typical entrepreneur much harder right now, therefore I don't think the “spirit is higher”. Many entrepreneurs I know actually thought about moving their companies abroad due to some actions taken by the government.

9. What are the main obstacles that Start-Ups will face in the next years?

The fact that there's not much of a success lately regarding the typical startups and startups scene overall. Some successful companies exist of course, but they're more specialized. I think cases of Twitter (without working business model), or Uber do not make a good case for startups overall, so I would love to see bigger success rate of new startups.

I think still there will be plenty of money to get from the investors, so that I assume won't be a problem.

I think there will be required to create more advanced technological startups. Hiring qualified personnel can be challenging.

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

Mediocre at this point

11. Do you want to add something else?

N/A

Appendix 10 Expert 9

1. What can you tell me about the start-up scene in your country?

From few years a lot of start-ups appears and a lot of them was closed; basically, running start-up is a way of life for very young people, who are not adapted to mature company/corporates

2. When did you start notice that Start-Ups were increasing in your Country?

I think that 2013-2015 was the time of biggest increase of start-ups (90s generation).

3. What do you think about this rise of Start-Ups?

I think, that this is connected with collage curriculum and higher availability of funds (f.eg. UE funds).

4. For you what are the main factors that justify this increase?

Higher availability of funds (f.eg. UE funds); ease of communication - social media.

5. What role do you think education plays this increase?

Way of education- especially in collage/university has huge impact to this topic

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

For sure - it should be visionary, focused, determined and mind open person

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

start- ups need a lot of money to exist and huge money to start commercialization of their product; its impossible without investment from funds or public money

a. Were policies practices by your government that justify the increase?

N/A

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

Yes, people prefer to run their own business that working for other people; there are more people with higher education, who wants to do something big and significant

9. What are the main obstacles that Start-Ups will face in the next years?

Commercialization is the first exam for product and company - the money from investors will be finished and companies need to have results and huge increase in market share (investors need own of return) the second check will be growing competition

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

N/A

11. Do you want to add something else?

N/A

Appendix 11 Expert 11

1. What can you tell me about the start-up scene in your country?

As there is big government support in financing the startups, both through the government projects as well as through supporting VCs there is a lot of money for early-stage startups. Because of this we have a lot of new companies coming up. There is definitely a bigger problem when it comes to supporting more mature companies and they have to look for financing abroad.

2. When did you start notice that Start-Ups were increasing in your Country?

I would say, that i started to be big around 6 years ago

3. What do you think about this rise of Start-Ups?

It is very good. It is bringing fast innovation to the market.

4. For you what are the main factors that justify this increase?

I think that the main factor is the availability of financing - this is especially important for scientifically difficult projects. The other aspect is the need of people to create something new. They are getting bored in corporations and they want to use their imagination to create their own new products that will help others and change to the world.

5. What role do you think education plays this increase?

Based on my experience, I cannot see any connection. A I would rather say opposite, education in not supporting startup thinking.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Definitely. The leader have to have dedicated skills that very often a lot of scientists lack. This is why I replied to the previous question that education is not supporting. We can see a lot of scientists doing great projects but they do not have marketing and business skills that will allow them to create a successful company.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

Yes. In our region investments are still small, and for successful startups, they require time to market which is connected with money. If we want to have big unicorns, we have to put a lot of money and be patient.

a. Were policies practices by your government that justify the increase?

As I mentioned before, recently there were a lot of support from the government to startups which justify the increase for sure.

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

I think it is the same, but it just moved into different directions. Previously people were engaged in different kinds of projects, as there were no such possibilities, as we have today.

9. What are the main obstacles that Start-Ups will face in the next years?

As always it depends on the category of the innovation that we are building. In our case, I would say that the biggest obstacle would be market acceptance and development.

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

N/A

11. Do you want to add something else?

N/A

Appendix 12 Expert 11

1. What can you tell me about the start-up scene in your country?

Pretty strong and a number of companies are created

2. When did you start notice that Start-Ups were increasing in your Country?

My guess would be 2017

3. What do you think about this rise of Start-Ups?

Everybody is looking for a unicorn business with its own product most likely, the easiest is the sw (“no production” needed)

4. For you what are the main factors that justify this increase?

Own product, strong background, best-in class

5. What role do you think education plays this increase?

Sure it has its own input since

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Create = enough to have a good idea, lead one = strategic thinking, management skills

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

Sure, investments are boosting the business growth

a. Were policies practices by your government that justify the increase?

N/A

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

Most likely yes, but it is hard to come up with something unique

9. What are the main obstacles that Start-Ups will face in the next years?

Success

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

I don't understand the question

11. Do you want to add something else?

N/A

Appendix 13 Expert 12

1. What can you tell me about the start-up scene in your country?

There is a lot of smart people with great entrepreneurial spirit, however we lack the skills of sales and getting paid by our customers. We usually leave money on the table. However we are learning, thus it will take a whole generation to grow up to find great sales person from the Europe. Currently they are only from GB or US.

2. When did you start notice that Start-Ups were increasing in your Country?

Well I remember that it was always a lot of entrepreneurs in Slovakia. However recent years had brought EU fundings, competitions, events, people coming from abroad, which lead to more such entrepreneurial people.

The other fact is coolness. It kinda started to be cool to be startup founder. However it take 1-2 year to filler this kind of pseudo-founders, pseudo-investors from this area.

3. What do you think about this rise of Start-Ups?

It is the best time to start business. It was never better and easier to start business, get money either from the banks, FFF, angels or VC.

It also brought a lot of bullshitters - aka people that never did anything yet they are doing VC managers, consultants and so on.

4. For you what are the main factors that justify this increase?

Lot of easily accessible money, opportunities that comes with new technologies and excitement to do something what will have an impact (green tech, blockchain, NGO's, society).

5. What role do you think education plays this increase?

Obviously huge. Basic educational system hasn't changed over dozens of years and yet it directs the way we pick in our lives. It's important to lead people from their childhoods to feel equal to each other, protect the nature, take care about our health and know the math and history (:D:D). And still give them the freedom to play, experience childhood and not give them home-works. I think we must change the edu system, get inspired by Scandinavian school system and make live their lives a bit more offline.

6. Do you think that is necessary any additional skills to create a successful Start-Up and to lead one?

Excitement, determination and stamina(endurance). Everything else come.

7. Do you see foreign direct investment as having a key role in techs start-ups developing in the Visegrad?

It is one of the key roles for increase and growth.

- a. Were policies practices by your government that justify the increase?

Not at all. Government is just slowing us down. Honestly it really sucks. We need paperwork, taxation, e-government reform that will be easy and that will work!!! (example Estonia)

8. Do you feel that the entrepreneurship spirit is higher in the recent years?

Yep, mentioned before.

9. What are the main obstacles that Start-Ups will face in the next years?

For Visegrad it is lack of the sales skills.

10. What role do you think multinationals have in the success of startups (Supporting, M&A process)?

All

11. Do you want to add something else?

N/A

Appendix 14 Score of Importance of the different KSF by Experts and in Literature Review

	<i>LR</i>	<i>EI1</i>	<i>EI2</i>	<i>EI3</i>	<i>EI4</i>	<i>EI5</i>	<i>EI6</i>	<i>EI7</i>	<i>EI8</i>	<i>EI9</i>	<i>EI10</i>	<i>EI11</i>	<i>EI12</i>
<i>EDU</i>	5	5	1	1	5	3	5	1	3	3	0	5	4
<i>INVES</i>	4	3	4	4	4	4	4	3	2	5	5	4	5
<i>BUS/MAN</i>	4	1	5	4	4	5	4	5	5	2	3	4	0
<i>ES</i>	3	2	3	4	4	3	3	4	2	3	4	4	4
<i>GS</i>	0	0	2	1	4	4	3	3	3	0	4	0	4

Appendix 15 % Change in the Number of New Firms Registered

<i>% Change in The Number of New Firms Registered</i>						
	<i>EU 28</i>	<i>V4</i>	<i>CZ</i>	<i>Hun</i>	<i>Pol</i>	<i>Slo</i>
<i>% Change 2013 VS 2012</i>	17%	18%	26%	40%	13%	14%
<i>% Change 2014 VS 2013</i>	0%	25%	88%	13%	10%	91%
<i>% Change 2015 VS 2014</i>	7%	-3%	4%	12%	2%	-41%
<i>% Change 2016 VS 2015</i>	1%	8%	10%	1%	12%	-9%
<i>% Change 2017 VS 2016</i>	4%	22%	34%	25%	12%	70%
<i>% Change 2017 VS 2012</i>	30%	88%	266%	125%	59%	98%

Appendix 16 Strengths and Weakness of Visegrad Countries from other reports

<i>Country</i>	<i>Weaknesses</i>	<i>Strengths</i>
<i>Czech Republic</i>	Low activity in the area of Startup	The highest quality of life in the group;
	Low share of VC as a source of funding;	High urbanization rate;
	Low funding from the public sector;	High activity in the labor market;
		High investment activity in the field of R&D;
		High ratio of R&D specialists among all employees;
		Strong e-commerce;
		Leader in the Global Innovation Index;
		High proportion of exporters among the startups;
	Leader in patents and registration of trademarks;	
<i>Hungary</i>	Slow economic growth	Investments in R&D dominated by the private sector;
	The highest level of exclusion	High penetration of mobile technologies;
	One of the lowest position in the Doing Business 2019 Ranking	World-famous “unicorn”
		High activity of local VC funds
<i>Poland</i>	The lowest level of investment in R&D	The best software engineers in the world

	Low patent activity of enterprises	Leader in the Doing Business 2016 ranking
	High levels of digital exclusion	Organized the most Startup Weekends Google Campus in Warsaw
	Low penetration of mobile technologies	Four large startup centers
		High level of EU financing
		High level of economic growth
		The highest labor productivity
	<i>Slovakia</i>	The highest unemployment
		High export activity
		The largest share of women among the founders of the startups
		Crowd funding the most popular among respondents in V4 countries