



The Influence of Entrepreneurial Innovation on the Economic Development of Bulgaria

Submitted to Davis Gibbs

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Affidavit

I hereby affirm that this Bachelor's Thesis represents my own written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed.

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Abstract

Today a stable and growing economy of a country is one that implements innovation and support entrepreneurial activity. Therefore, for Bulgaria as a developing economy it is essential to adopt innovative practices and policies which support the entrepreneurial activity within the country. This paper develops an extensive conclusion regarding the influence of entrepreneurial innovation on the development of the Bulgarian economy by using an innovation theory in the context of economic development. Stakeholder factors have crucial impact on the economic development. Their role in supporting entrepreneurial activity and implementation of innovation is of great significance. Even though Bulgaria is still a developing country, in the recent years it experienced changes in the private investment sector, as well, as the foreign direct investment sector which led to a more rapid development and adoption of innovative technologies and strategies for sustainable development and economic growth. An example for that is the expanding start-up environment in the country which finds support both from governmental and non-governmental organisations. Therefore, the statistics show that the country has a potential to improve significantly. Nevertheless, a great governmental support and non-governmental organisation's involvement will be needed in the rise of the expected economic crisis because of COVID-19 pandemic and the war in Ukraine. Once those factors are stable, the implementation of entrepreneurial innovation in Bulgaria could lead to profitability for established ventures and more opportunities for smaller ones which in turn would attract foreign investment and stable private investment which could result in a flourishing Bulgarian economy.

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List of Abbreviations

- AI – Artificial intelligence
- BESCO – Bulgarian Start-up Association
- BGN – Bulgarian lev
- BVCA - British Private Equity and Venture Capital Association
- BVCA - Business Venture Capital Association
- CEE – Central and Eastern Europe
- CEO – Chief executive officer
- EIF – European investment fund
- EU – European Union
- FDI – Foreign direct investment
- FNF – Fidelity national financial
- GDP – Gross domestic product
- GEI – Gender equity index
- GEM – Global emerging market
- HCI – Human capital index
- ICT – Information and communications technologies
- ISO – International Organization for Standardization
- IT – Information technology
- NGO – Non-governmental organization
- NSI – National security information
- PDI – Private domestic investment
- R&D – Research and development
- RQ – Research question
- SDG – Sustainable development goals
- SME – Small and medium-sized enterprises
- SWOT – Strengths, weaknesses, opportunities, and threats

TEA – Total early-stage entrepreneurial activity

US – United States

USD – United States dollars

VC – Venture capital

VNR – Voluntary national review

1 Introduction

This research discusses in detail the influence of entrepreneurial innovation on the economic development of Bulgaria through implementing an innovation theory in the context of economic growth. The factors that are analyzed are combined and their influence is examined in order to structure a competent conclusion regarding the topic. Entrepreneurial innovation makes the economy of Bulgaria more attractive for foreign and domestic investment which results in enhanced productivity and therefore in development of the economy.

1.1 Background Information

Economic recovery from the crisis and a return to growth requires support and development of entrepreneurship. This is because entrepreneurship makes the economy more competitive and innovative and increases employment. At the same time, in many countries the institutional and business environment is not very favorable for entrepreneurs, especially for small start-ups (Seth, 2021).

In 2022 from January to March, the Bulgarian economy grew by 4.5% compared to the same period of 2021 and by 1% compared to the previous three months (Ignatova, 2022). This is clear from the published express assessment of the National Statistics Institute, which is the earliest measure of Gross Domestic Product movement (Ignatova, 2022).

The data at the moment depicts a more optimistic picture than most preliminary expectations about the effects of the war in Ukraine and the accelerating inflation. Despite exceeding expectations, the country's annual growth remains below the European Union average - 5.2% (FocusEconomics, 2022).

Bulgaria ranks third globally and second in Europe in terms of improving entrepreneurial metrics in the last year. Despite being in the median of the list, its indications improve substantially, climbing 13 positions in the Global Entrepreneurship Index and ranking 69th out of 137 countries (Ignatova, 2022). In Europe, however, it is closer to the bottom. The country is making

the greatest progress on the indicators for innovation and skills for starting a business (Ignatova, 2022).

The rise in the global ranking is somewhat expected, after the recently published second national survey of Global Entrepreneurship Monitor showed that the share of Bulgarians engaged in entrepreneurship has increased from 3.5 to 4.8% (FocusEconomics, 2022).

Compared to 2020, Bulgaria significantly improved its indicators for product and process innovations, which reflect its ability to develop and integrate new technologies in the business sector. Entrepreneurial innovation is starting to develop in Bulgaria according to the 2018 index (World Bank, 2022a). The country continues to perform badly in terms of venture prospects, both in terms of people's capacity to recognize them so as an institutional structure that allows them to exist. (World Bank, 2022a).

Based on 14 factors, the Global Entrepreneurship Index assesses both the development of a country's entrepreneurial environment and the quality of entrepreneurship technologies. Bulgaria increased its total score by 5.1 points in 2018, attaining 27.8 points (Ignatova, 2022). This places the country 69th, alongside India and Panama. In comparison, the United States leads with 83.6 points. (Ignatova, 2022). Bulgaria is ranked 32nd in Europe out of 38 nations represented in the ranking (Ignatova, 2022).

The European Commission recognizes that the main weakness of the country's economy is the low level of research and innovation. Both activities are underfunded, do not achieve the expected results, and need radical reform. Governmental policies as well as support from the private sector to stimulate growth, innovation and competitiveness are key to the development of the Bulgarian economy (Ignatova, 2022).

The results show that the entrepreneurial activity in Bulgaria is crucial to its economic development which leads to the question: **Why is entrepreneurial innovation important for the economic development of Bulgaria?**

1.2 Relevance and Importance

It is essential to analyse the factors that correlate with the economic development of a country to understand their influence and possible actions towards more extensive growth and stability of the economy. As a country that is recovering from a major economic and political crisis, Bulgaria is adopting practices and technological advancements which reflect in a significant improvement. The analysis of the economic state of the country in the past few years shows that the support and development of entrepreneurial innovation has a positive economic influence and the sustainable development in Bulgaria.

Therefore, creating a healthy environment for emerging business, innovations and entrepreneurial activity is essential for the proper functioning and growth of the Bulgarian economy which is influenced by the firms, the consumers, and the governmental and non-governmental organisations. Their influence is crucial and analysing their role and possible further actions for supporting innovation is important for the stability and growth of the economic state of Bulgaria.

1.3 Aim of study and Research Questions

The study is aimed at researching the importance of supporting entrepreneurial innovation and its influence on the economic development of Bulgaria. It defines and analyses the fundamental factors that correlate with entrepreneurial activity and adoption of innovation such as governmental and firms' activity as well as non-governmental organisations' activity. It is important to examine their role to suggest what actions can be taken to stimulate entrepreneurial innovation and therefore, instil economic growth and stability. The study is meant to address, moreover, how can entrepreneurial activity be supported and how can innovation be implemented more extensively in the business sector of the country. Additionally, the research aims to explain that through supporting entrepreneurial innovation and therefore economic stability and growth, sustainable development in Bulgaria is also improved.

The study is aimed to understand the theory of innovation introduced by Schumpeter and apply it to the modern world in the context of economic development and more specifically to the economic development of Bulgaria.

The overall goal of the study is to form a competent conclusion and therefore develop an answer the research question of the study: “***Why is entrepreneurial innovation important for the economic development of Bulgaria?***”. Using the analysis of the current economic state of Bulgaria as well as the factors that influence it. Based on the literature review and the data that was collected through the expert interviews.

Once the broader objective of the study has been determined, it is essential to narrow down the study's goals further in order to describe what exactly needs to be identified by this research and what needs to be studied, tested, and evaluated to obtain the expected results.

To begin, the research questions that will guide the investigation must be articulated. In order to develop the project, the variables that will be evaluated throughout the data analysis should be determined. Since the study will examine the influence of entrepreneurial innovation on the economic activity of Bulgaria, to guide the study, the following two research questions were developed:

RQ1: Why is entrepreneurial innovation important for the economic development of Bulgaria?

RQ2: How can entrepreneurial innovation be stimulated in Bulgaria?

The report follows a framework that includes a complete literature review in order to conduct effective research and assessment of the topic. There is a specific methodology process to ensure that the research follows a logical course and comes to a critical conclusion:

At the beginning of the paper, the theory that will be used throughout the study, is introduced. For the purposes of the research an innovation theory in the context of economic development was examined and applied. The theory was developed by Joseph Schumpeter and is the basis of the modern

theory for innovation and entrepreneurship in the context of economic development.

The next section of this paper presents the general ideas and importance of “Innovation”, “Startups”, and “Sustainable development” in order to comprehend the study better and establish a critical thinking regarding the topic. Moreover, the function and the influence of the before mentioned terms is explained in order to represent their relevance to the topic and to the economic development of the country.

Additionally, four stakeholders are researched as factors that influence the entrepreneurial activity in the country. Their role, importance and influence are discussed as well as the needed actions that they should take to improve the current state of the country. In order to create a clearer image and a necessary context, the current socio-economic state of Bulgaria is portrayed, including an overview of the foreign direct investment and the private domestic investment.

The next section of the literature evaluation focuses on the development and impact of entrepreneurial innovation in Bulgaria. Several variables are presented to define the entrepreneurial activity and innovation structure of the country, including its origin, current situation, and prospects. The complexity of the matter is better expressed this way. For better understanding and deeper analysis, the study introduces an example - a start-up called Dronamics which is a representation of a successful entrepreneurial innovation activity in Bulgaria that now has global recognition. The fundamental goal of this section is to form a picture of the current situation in Bulgaria and how it was possible for this start-up to build strong foundations and develop in Bulgaria.

Following the literature review, the methodology of the study is introduced. In that section the research design as well as the data collection are discussed and analyzed. The second stage of data gathering is further introduced: primary data collected through expert interviews. A qualitative research approach is used in the second portion of the study to assess the main data gathered from the interviews. It is required because it presents the viewpoint of experts and specialists who have experience with

entrepreneurial activity and innovation in Bulgaria, Europe, and the United States, and can provide relevant and competent opinion on the subject.

Finally, the limitations of the study are discussed, and the article forms a conclusion based on the facts and analysis of the importance and influence of entrepreneurial innovation on the Bulgarian economy and how it can be further stimulated and supported.

2 Literature Review

The influence of entrepreneurial innovation on the economic development has been discussed and analyzed. Through the innovation theory a few different factors were examined and combined, that all have an impact on the development of innovations and therefore on the economy of Bulgaria, such as the economic, socioeconomic, political, administrative, and institutional aspects, as well as the array of development and diffusion of new technologies, in accordance with the government's implication policies to impact the innovation activities.

2.1 Schumpeter's innovation theory in the context of economic development

According to Joseph Schumpeter theory of innovation, business innovation is the primary cause of increasing investments and company volatility (Slezdik, 2013). He defines innovation as an advancement in manufacturing of a new products and a change in the industrial structure. Innovation, according to the theory, does not mean invention; instead, it refers to economic application of new technologies, techniques, and sources of energy (Sweezy, 1943).

The concepts of entrepreneurship and innovation are possibly Schumpeter's most significant contributions to economics. The importance of entrepreneurship and innovation in economic growth is a constant theme in Schumpeter's books (Slezdik, 2013). Despite being one of the first to express the clear concept of innovation, Schumpeter's thoughts on the matter altered over time. In his early approach, he emphasized the importance of entrepreneurs in carrying out creative combinations. In his work: *The Theory*

of Economic Development, originally published in 1912 (Slezdik, 2013). Revolutionary changes and discontinuity were considered the core of socioeconomic development, pushing the economy out of its cyclical cycle and placing it on a volatile road of fits and starts. According to the innovation theory, profits require innovation. This can potentially result in a shift in the utilization of the economy's current productive resources. Profits, according to innovation theory, demand innovation. This might lead to a transformation in how the economy's present productive resources are used. Additionally, Innovation, according to Schumpeter, is a key driver for competitive advantage and socioeconomic development (Sweezy, 1943). Innovation is at the center of economic progress, culminating in "creative destruction." Schumpeter defines innovation as "a process of industrial mutation that continually revolutionizes the economic structure from within, perpetually destroying the old one and perpetually building a new one" (Slezdik, 2013).

Modern economies' increasing complexity needs a faster rate of economic engagement. In today's knowledge-based economies, dynamic technological innovation is critical. Innovation development is no longer dependent on people, but rather on the interaction of several different stakeholders. This process involves cognitive abilities that facilitate effective transmission and, as a result, the comprehension of innovation, which ultimately develops entrepreneurship. Schumpeter's concept of entrepreneurship and innovation is widespread and continues to develop in Neo-Schumpeterian economic principles (Slezdik, 2013 & Sweezy, 1943).

There are disadvantages to the innovation theory which need be considered in order to meet the objectives of this study. An objective assessment of Schumpeter's business cycle theory might well be impossible since its assumptions are focused on social rather than economic variables. The innovation hypothesis of Schumpeter is not significantly distinct from the over-investment concept. It only alters in terms of the effects of changes in spending whenever the economy is in a recession (Slezdik, 2013). Furthermore, like other economic cycle models, this idea excludes other variables that influence changes in economic activity. Furthermore, innovation is merely one of numerous factors that contribute to economic progress. Regardless of the limitations, S Schumpeter's innovation theory is

widely accepted in modern economy and is incorporated in forecasting economic swings (Slezdik, 2013).

2.2 Entrepreneurial Innovation

Since Schumpeter's early work, the concepts of "innovation and "entrepreneurship" have been inextricably linked. Schumpeter notably articulated 'gales of creative destruction,' which entrepreneurs ignite by introducing to markets new, vastly different products, services, and methods, facing industry leaders who support the status quo (Autio et al., 2014). As a result of Schumpeter's views, innovation and entrepreneurship have become intimately linked in the public consciousness (Autio et al., 2014).

The fundamental basis of competitive advantage is entrepreneurial innovation (Fleetham et al., 2015). Entrepreneurs are crucial to the launch of new businesses that have departed from conventional growth paths and have harmed established competencies.

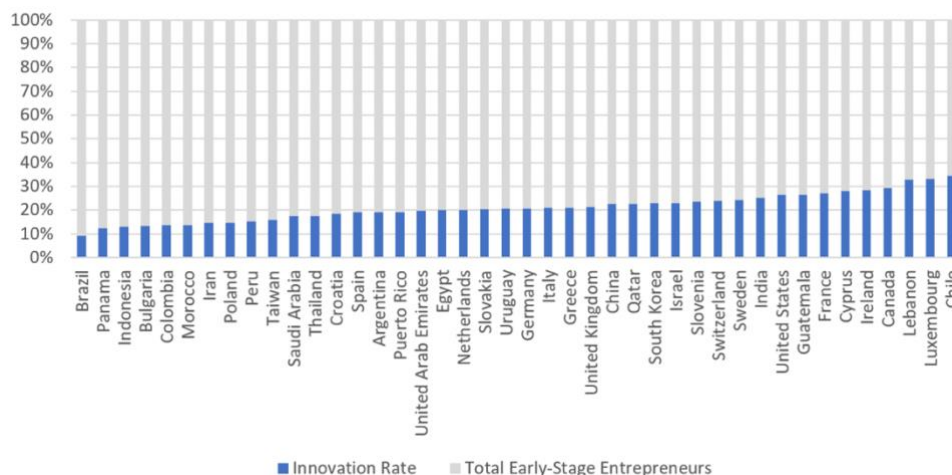
Affiliating entrepreneurship with innovation, many governments, countries, states, and institutions have enacted legislation to stimulate entrepreneurial ventures to develop in the objective of enhancing the economic state and activity. Such policies include national, regional, and local initiatives to encourage start-ups (Fleetham et al., 2015).

However, although the general public and governments commonly use the words interchangeably and even support one in order to increase the other, entrepreneurship and innovation are not interchangeable. This would suggest that all entrepreneurs are innovative. In reality, the vast majority of new businesses lack creativity. According to the Global Entrepreneurship Monitor (GEM) study, which gathers primary data from 80 countries, approximately 30% of all new firms stated that their solutions were innovative to users (GEM, 2022). Importantly, the statistics demonstrate that the ratio of technology-based start - ups and product innovation varies greatly across nations and even within jurisdictions, varying from less than 10% to more than 50%. (GEM, 2022).

2.2.1 Innovation

The competitive world of today is strongly reliant on innovation. Business executives must continually seek new methods to innovate since outdated solutions cannot solve many challenges. Innovation is crucial in all businesses; therefore, it is crucial to devote sufficient time to properly comprehend the innovation process. Even though as mentioned before, "innovation" and "entrepreneurship" are commonly used interchangeably, they are related but not identical. In business, utilizing innovation is critical since it stimulates unique ideas. This uniqueness is a critical component of innovation. To be regarded as creative, a concept must be both original and valuable. Innovative ideas do not always result in innovations since they do not always provide viable solutions to problems (Fagerberg et al., 2010).

Figure 1: Innovation Rate Worldwide



Source: World Bank, 2022

The table shows the Innovation rate index worldwide and Bulgaria is just above 10%. Compared to the leader Chile which has 30% rate, Bulgaria is performing not as good. However, the level of economic development should also be taken in consideration.

An example of innovation is an innovative business model, strategy, product, or service. Innovation does not have to include major technology advancements; it could be improving a company's customer

satisfaction or adding enhancements to an existing service or product (Lazarova et al., 2015).

Entrepreneurial innovation is the process of introducing innovation to a business - whether through a new market strategy, product, or a new method - in order to restructure the venture and produce new growth and value. Company leaders generate novel ideas, which are subsequently successfully implemented through decision making and strategic planning. When a corporation innovates, it could potentially improve its existing products, procedures, or processes or develop completely new ones (Grossmann, 2009).

There are two main types of innovation in businesses: disruptive and sustaining. Disruptive innovation, occurs when smaller businesses compete with bigger organizations. Sustaining innovation one in which the organization's operations and technology are continuously enhanced in order to improve the product line. In order to preserve their market leadership, incumbent firms usually pursue it. (Grossmann, 2009). Companies that join and occupy a sector at the bottom of an existing market are regarded as low-end disruption, while companies that develop an additional market segment to serve a customer base that the current market is unable to reach is considered a new-market disruption (Pisano, 2020). The most successful firms include both types of innovation into their business goals. While maintaining a position in the market is essential, pursuing growth is vital for remaining competitive. Additionally, it preserves the company's reputation against competing businesses (Grossmann, 2009).

Unexpected hurdles are inevitable in business. Remaining proactive through innovation would benefit the company even further. Growing a firm, for example, entails increasing your income. Successful innovation allows organizations to contribute constructively and profitably. Innovation makes it easier to stay ahead of the competition. As a consequence of globalization and a rapidly changing market, there are many more competitive businesses today. Therefore, innovative thinking could help businesses anticipate the market and satisfy customer wants (Pisano, 2020) (Grossmann, 2009). The results could be maximized to get a

competitive advantage by applying innovative processes as well as innovation technologies.

2.2.2 Start-ups

Start-up enterprises are economic entities that have only recently worked their way into influencing economic growth. Usually, as a result, start-ups are developing entirely new products or services, rather than duplicating the offerings of other entities in the market or replicating existing projects (Grant, 2021). Their development is challenged by a high level of risk. In terms of funding, the analyzed companies appear to be similar to other businesses. They rely mostly on domestic capital and, in rare cases, on international money. In the case of start-ups, the founders obtain funding from other founders or investors, through EU funds, or from angel investors. Forecasting development preferences for seed businesses is challenging, especially since no one has previously set the way for a new service or product review. A corporate development model, like any other, is impacted by a number of conditions; nonetheless, the assumption that the specified start-up firms have an effect on labor market and the economy of a country is evident (Freeman & Engel, 2007).

The environment in which a startup is established and operates has a substantial influence on its success. A start-up ecosystem is composed of numerous entities that, through collaborating, have a direct influence on the structure of the start-up. Investors, institutions, large businesses, foundations, and government agencies all play important roles in the development of its operations. Venture capitals, business angels, mentors, and other experts who interact with new companies play an important role. The development of ecosystems is a dynamic process; conditions change regularly, and expanding structures modify the region's economic environment (Spender et al., 2017).

Although, short-term and limited in scope, start-up economic activity has a good impact on the stimulation of local innovativeness. If a company continues in the market for a longer period of time, it contributes to a rise in the GDP of the nation in which it operates, generates new jobs, contributes

to a decrease in unemployment, and increases societal living standards (Spender et al., 2017).

Researchers and business executives are equally attracted to start-ups. They have become builders of a new enterprise framework for the twenty-first century. This progress delivers considerable advantages to the economy as a whole on a global, national, and regional scale. Start-ups provide employment, especially for young people, which improves family income. Nevertheless, start-ups also indirectly influence the human capital appreciation by investing in its competencies and self-development. They enable technical advancement by influencing the construction of contemporary economies and making innovative technology available to society (Szarek, 2018). Additionally, start-ups contribute to the marketing of the nation and area by expanding the range of pioneering goods and services and boosting the country's standing in different rankings, such as the innovation index. Finally, start-ups contribute to the development of a favorable ecosystem that attracts both domestic and international investors by setting the route for expansion of operations based on cutting-edge technology and creative ideas (Freeman & Engel, 2007). The benefits of a country's start-up eco-system growth lead to state initiatives aimed at the development of these enterprises in order to establish an environment conducive to a new enterprise model. Development of new firms gives a chance for improving the state of national economies and the social situation, but most importantly for increasing the region's innovativeness. Start-ups are an indisputable leverage of the State's position, creating employment, boosting residents' salaries, and contributing to economic progress. Start-up activity in sectors such as nanotechnology, biotechnology, computer science, and telecommunications increases the economy's innovativeness (Grant, 2021).

2.2.1 Economic Development

Local economic growth is determined by a jurisdiction's resources and capacity for supporting private investment and job creation, as well as the external resources it can get (Investopedia, 2021). Developing countries like Bulgaria are typically limited in terms of both resources and capabilities. Therefore, it could be assumed that economic development is not as

encouraged by the country's stakeholders. Larger jurisdictions in Bulgaria do more to foster overall economic growth (Chobanova, 2015). Smaller counties accomplish less because they do not have as much access to human, financial, and organizational resources. However, the approach does not account for the possibility that the amount of economic development effort is tied to income and wealth rather than just population size. Because jurisdiction size is likely connected with economic prosperity, population size may not be as essential as the quantity of money and wealth inside a community. The first is concerned with increasing local capability for economic growth. Small towns are less active in attempts to alter their local economies. Availability of information and technical support may be more important in smaller jurisdictions. There is a need for greater systematic assistance for local economic development decision-making, notably in the areas of strategic planning, best practices, and economic and budgetary impact analyses. Furthermore, if considerable financial resources are not available, the obstacles connected with securing suitable locations and structures, as well as constructing the infrastructure required to support additional private investment, would necessitate inventive solutions (Moran & Ghoshal, 1999). The second major subject is relationships. Connecting communities to useful ideas, resources, and opportunities is a key aspect of increasing local economic development potential. The most important links are those that ignite local creativity, promote desired change, bring results, and assist a jurisdiction in doing what it cannot achieve alone. In other cases, counties appear to be ideally positioned to serve as the point of focus for the economic development initiatives of smaller communities. In other circumstances, a multicounty partnership might play that function; however, smaller municipalities must work out how to guarantee that their interests are adequately represented in such an arrangement (Edmiston, 2007).

2.2.2 Sustainable development

The Sustainable Development Goals (SDGs), developed by the United Nations to act as a model for building a sustainable future and wellbeing for all, are a series of 17 Global Goals. Global warming, air pollution, deforestation, groundwater depletion, ocean overfishing, and the

fight to feed the world's all of the world's population are all significant environmental and natural resource challenges (SDKP, 2022).

Sustainability, in terms of the environment, means regulating and preserving the Earth's natural atmosphere, climate, ecosystems, and resources, so that current and following generations could live in integrity and additionally, all other species with which humanity share the planet can benefit.

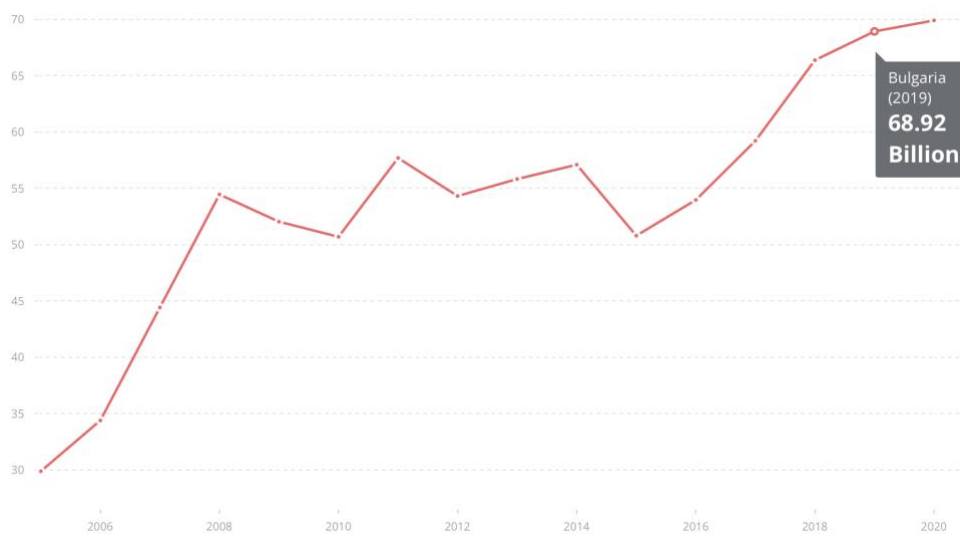
The integration of sustainable development, entrepreneurship, and innovation is particularly pertinent, mandating companies to resolve sustainability aspects with revenue growth, given the emphasis on quality of life. Therefore, entrepreneurship and innovation have been recognized as essential for achieving sustainability demands. The emergence and spread of innovative businesses are crucial for structural transformation toward sustainable development (SDKP, 2022).

Nations with more creative SMEs linked to entrepreneurship are leading the rankings for achieving sustainable development goals, whereas nations with poor overall performance in entrepreneurial innovation get lower ratings for sustainable development. To address both present and future challenges, sustainable development requires business sectors to support innovative initiatives and activities that serve as transformational factors in the development framework of SDGs (SDKP, 2022) (Dimitrova, 2014).

2.3 Economic development of Bulgaria

When analyzing a country's economic status, one of the most significant items to look at and assess is the gross domestic product (GDP). The GDP of a country is a representation of its national total revenue and production. GDP represents the total spending for all services and goods produced within a country over a given time period. According to the World Bank, Bulgaria's GDP in 2023 is expected to grow by 3,50% (2022a).

Figure 2: GDP of Bulgaria 2005 – 2020 (Billion USD)



Source: World Bank

Lower consumer expenditure growth due to a large base effect and persistently high inflation would influence fixed investment in 2022, according to projections. The prognosis is shadowed by uncertainty over the country's energy supplies, political instability, and the prospect for delayed absorption of public and European Union funding (World Bank, 2022a).

Figure 3: Annual inflation in Bulgaria (%)



Source: World Bank

The figures above show that there isn't a specific correlation between GSDP growth and inflation rates. The GDP of Bulgaria (Figure 2) experienced a significant growth between 2006 and 2020 by more than 50% reaching almost 70 billion USD. This suggests that there was a big economic development as well and improvement in the financial system of the country. Which could be influenced by higher productivity as a result of private and domestic investment, as well as governmental reforms.

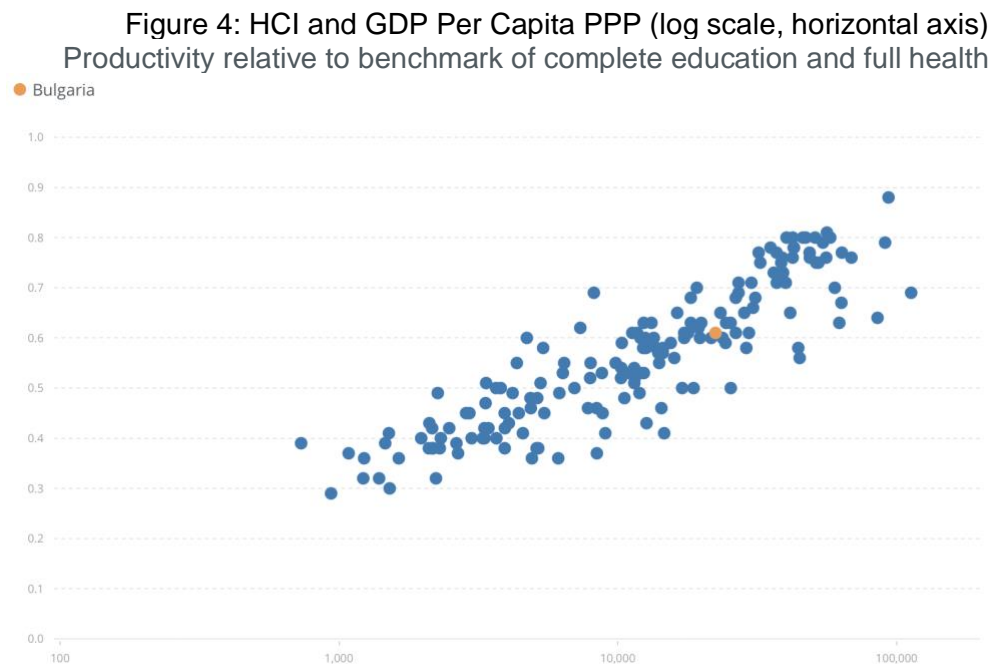
Bulgaria has a well-developed and integrated ecosystem of businesses that have adopted increasingly innovative technologies in recent years. With the potential for rapid expansion of start-ups, Bulgaria is in a better spot than most of its Southeast European neighbors. The country's ecosystem has two primary advantages. Firstly, it contains all of the required components, such as entrepreneurs, financing, accelerator programs, and so on. Another significant benefit is the high degree of connectedness (Trading Economics, 2022b).

The entrepreneurial sector has expanded significantly in the last two years, and the government should now vigorously encourage it. Government measures addressing concerns such as access to money and access to specialists can help to accelerate the sector's and Bulgaria's economic growth (Trading Economics, 2022b).

According to the data, the majority of the companies established in Bulgaria in the last couple of years are in specific niches such as artificial intelligence, fintech, mobile application development, blockchain, medicine, cybersecurity, and others. Additionally, venture capital funding has increased substantially - more than 400 million USD have been invested in European and federal programs for start-up funds, without considering private investment funds (Trading Economics, 2022b). This figure is expected to rise more during the following decade. The ecosystem offers considerable benefits in terms of business expansion and consumer acquisition, and the legal environment for start-ups is more convenient than in adjacent countries (Trading Economics, 2022b).

Another indicator for the economic state of the country that should be discussed is The Human Capital Index (HCI). It assesses the amount

of human capital that a person born today is projected to acquire by the age of 18, assuming the chances of inadequate health care and education in the country in which they live. Its goal is to demonstrate how current advancements in medical and educational innovations affect the economic productivity of the following generation of workforce. Therefore, it is suggested that entrepreneurial innovation is tightly connected with HCI because it influences the innovative technologies that are used for the improvement of education and health care. The figure below indicates that Bulgaria's productivity relative to benchmark of complete education and full health is average at 0,61 in a scale from 0 to 1. Singapore and Luxembourg are on the first two places with 0.88 and 0.79 respectively, while the country with the lowest index is Central African Republic with 0.29 points (World Bank, 2022e).



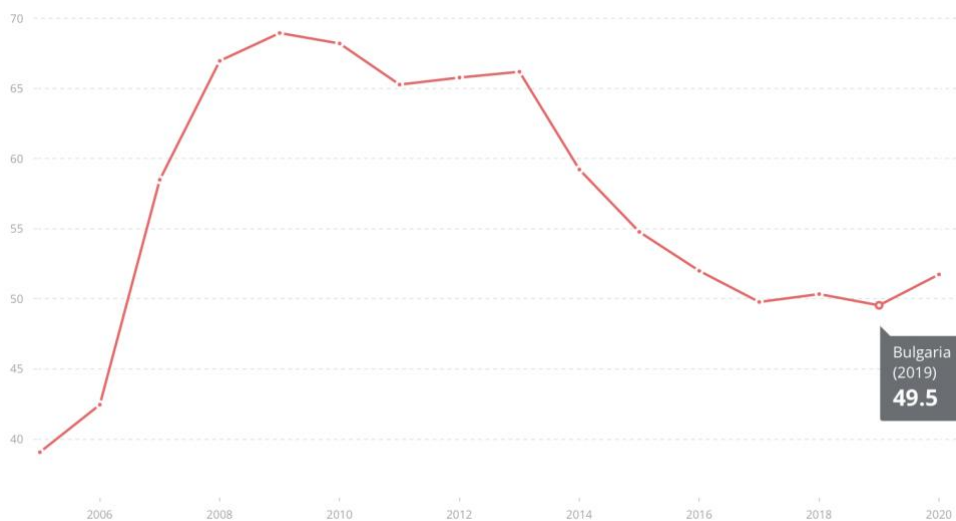
Source: World Bank

The figure shows the productivity relative to benchmark of complete education and full health. The orange dot represents Bulgaria. It can be observed that Bulgaria is performing above the average which means that for the level of economic development, Bulgaria is performing well in terms of HCI.

2.3.1 Private Domestic Investment

Funding and fund management in Bulgaria are now significantly more and better prepared than ten years ago (World Bank, 2022b). The entrepreneurial ecosystem is actively supporting more high-tech companies, and further funding and resale could bring more capital for investment, in the same way, for example, as the sale of the biggest IT company in Bulgaria, Telerik in 2014 (Zapryanov, 2022). It brought back assets into the ecosystem through business angels.

Figure 5: Private domestic investment as a % of the GDP



Source: World Bank

The figure shows that Bulgaria experienced a major PDI growth in 2008 which was right after the financial crisis. In 2013, Bulgaria experienced a significant downfall which had a crucial impact on the entrepreneurial activity in the country, however in recent years there is a tendency of growth of PDI which could be due to more favorable conditions.

Currently, the private domestic sector in Bulgaria is facing a big opportunity. More angel investors, as well as venture capitals are ready to invest in the business ecosystem in Bulgaria because of the potential for development of technological innovation. The effect, at least in theory, should be positive. At the same time, there are concerns that the sharp jump in available capital could spoil the ecosystem, which has so far worked through deprivation but

has achieved results. Due to the fact that the vast majority of total investment capital in this decade will come from public funds, there is also the paradox that in Bulgaria companies and funds will behave more liberally at a time when venture capital will be more conservative phase (World Bank, 2022c) (Nikolov, 2022).

At the moment, the picture of the available capital in Bulgaria during this decade looks like this: the funds have 140 million USD to be invested by 2025. Some of the money have already been invested, but most of the portfolios are at least half full (Zapryanov, 2022).

This is an investment under the current European framework. The next one will have new funds. Although it is not clear exactly how much they will be, the conservative estimate is that they will be at least the same amount as in the previous one, which suggests another 140 million USD (Zapryanov, 2022). Separately, once the funds under the current framework start to run out of investment, part of the resource will be recycled.

New money for business investment will also come from the Recovery and Sustainability Plan. It includes a total of BGN 352 million for equity investments, which are divided into three pillars - for reconstruction (BGN 146.6 million), for development and innovation (BGN 146.6 million) and for climate-oriented projects (58.6 million) (Zapryanov, 2022). Under the first two pillars, the investments may reach BGN 209 million each with the envisaged private financing, and in the third the amount may be doubled to BGN 117 million, as the attracted private funds may be equal to the public resource (Zapryanov, 2022). The money will be managed by the EIF, and the government hopes to sign agreements with the European institution by the third quarter of this year and start awarding them. The funds can also be negotiated with existing funds at regional and European level in order to strengthen internationalization. However, like the FNF money, there will be rules that will limit investments in companies operating mainly in Bulgaria or registered in the country (Zapryanov, 2022).

The two biggest angel investors in Bulgaria, Eleven and LAUNCHub, which started the structured investments in start-ups, will also have over 100 million USD in the coming years (Nikolov, 2022). In October 2021, Eleven

announced its third fund worth 60 million USD, and two months later LAUNCHHub reached 74 million USD for its new fund (Nikolov, 2022). However, this money is not necessarily for Bulgarian companies - both funds already see themselves as more regional or even pan-European and, unlike funds operating public funds, have no barriers to investment (Nikolov, 2022).

The total amount of investments during the last ten years exceeds BGN 1.5 billion, of which very little has been invested so far (Nikolov, 2022). However, this is only announced at the moment and does not include possible new funds with private capital, with EIF resources or other public capital, all of which are highly likely (Nikolov, 2022).

The accounts do not include another high probability - capital from a successful high-yielding hundreds of millions of dollars from a company like Payhawk or Gtmhub to be reinvested in the local ecosystem. "Start-ups are raising too much capital today. I'd rather be slightly underfunded than overfunded. It's better for focus and discipline. Too much capital allows you to go in the wrong direction for longer" according to Airbnb CEO Brian Chesky. "It may be counter-intuitive, but raising less money often leads to better business. It makes you set limits that lead to higher quality solutions, better products and more sustainable business models." Aaron Levie, founder and CEO of Box also wrote. They both raise a rare question - is there such a thing as too much capital? Could overly generous funding, especially for start-ups, lead to worse results, or in other words, pampering? (Nikolov, 2022).

Daniel Tomov, managing partner at Bulgaria's Eleven Fund, says these concerns cannot be transferred to the Bulgarian scenario, even with a significant increase in available investment capital. "The fact is that there is more capital. Sometimes this leads to financing of companies that are not risky, but almost experimental, but also allows for much more experimentation and gives birth to much more innovation. Companies outside the usual suspected niches are also being financed. "The costs of the companies themselves are different. Specialists everywhere are much more expensive than five or ten years ago," Tomov said (Nikolov, 2022).

According to him, there is now not only more supply, but also more demand from entrepreneurs who know what they are doing, with ideas that are much more solid than those we saw years ago. Tomov adds that the new money for investments in companies and in particular start-ups will not lead to pampering but will allow Bulgarian funds to adequately finance Bulgarian companies. "We now see how underfunded Bulgarian companies are through the rounds in Payhawk (Bulgaria's first unicorn), Gtmhub (IT start-up in Bulgaria, evaluated at 30 million USD) and Dronamics (innovative start-up in Bulgaria), especially when they are fighting for specialists from around the world" (Nikolov, 2022).

What Tomov said, who clarified that it is important to increase private capital for investment relative to public resources as part of the mix, is in line with the direction of much of the capital. In short, it is diverse, but provides for larger rounds of funding in fewer companies. Under the recovery plan, for example, BGN 209 million for companies with development activities will be invested in about 30 companies, which implies significant rounds (Nikolov, 2022).

In addition to the amount of available resources, the big difference compared to ten years ago comes in the specialization of capital. Ten years ago, Eleven and LAUNCHub were omnivorous and invested in all kinds of companies. Today, larger and more mature funds like them are specifically focused on areas such as financial technology, healthcare, artificial intelligence and others. Their previous role as accelerators rather than venture capital funds has been taken over by new publicly funded players such as Innovation Capital and Vitosha Venture Partners. Part of the currently available resource is directed to quite mature companies, which takes it out of the definition of venture capital (Nikolov, 2022).

Thus, the ecosystem in Bulgaria is gradually specializing and allows the direction of sufficient capital in each link in the chain - from companies at the level of ideas (presid and seid) to already mature start-ups. As Daniel Tomov points out, large sums are invested in rounds B and above. "We used to think that \$ 1 million was a great achievement for funding, but now it costs us little.

Funding is starting to be adequate - you have enough capital so that someone can get out and develop" (Nikolov, 2022).

There is also the comparison at the global level, where Bulgaria lags significantly behind Europe, and Europe lags far behind the United States and Asia. Significantly, Brian Cesky and Aaron Levie, who are talking about less funding, have not raised hundreds of thousands or even millions of dollars, but 6 and 1 billion dollars, respectively - amounts that can actually lead to a loss of focus. "If we look at Central and Eastern Europe and Bulgaria in particular, funding has only become visible in the last few years. Bulgaria is at the bottom in terms of capital. When you were 0 and now you are 1, everything it seems huge to you," says Tomov (Nikolov, 2022).

2.3.2 Foreign Direct Investment

The evolution of the financial account also correlates to signs of reversing the downward trend in domestic demand. In contrast to the previous two years, which had net outflows, 2018 saw a net influx of USD 2.2 billion which is 5.6 percent of GDP (Petranov, 2022). As seen in figure 6, foreign direct investment climbed by USD 1.6 billion, while direct investment in the nation increased by USD 1.5 billion (Petranov, 2022). This is an increase compared to 2017 of USD 163.6 million, or 12.4 percent on an annual basis (Petranov, 2022). This quantity of foreign direct investment, however, is much smaller than before the crisis and inadequate to achieve a substantial acceleration of Bulgaria's economic development (Petranov, 2022).

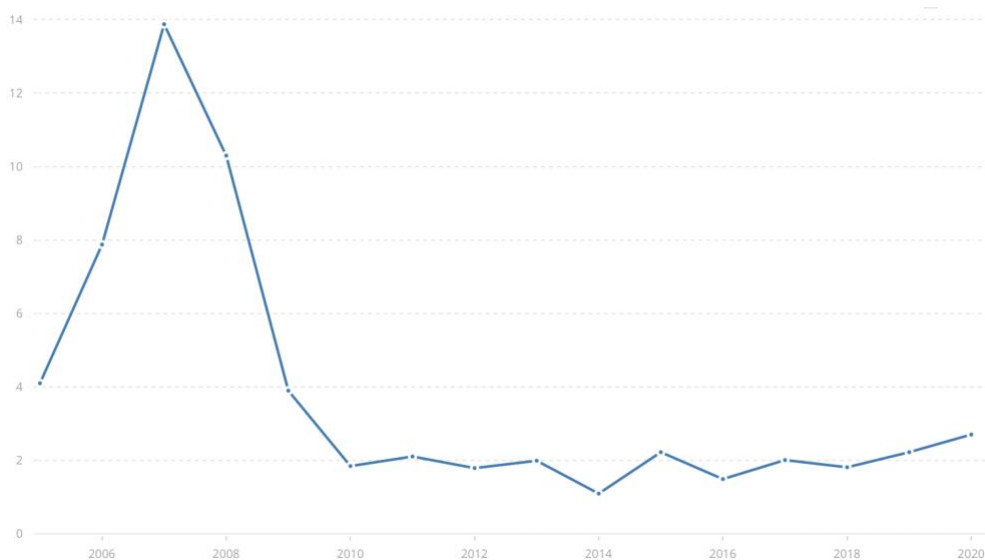
Foreign funding has a good influence on Bulgarian innovation, although significantly less than what was anticipated in the early 1990s (Trading Economics, 2022a). The country's international trade turnover was USD 12,309.1 million in 2000 (Trading Economics, 2022a). It has climbed by 18.7 percent since 1999 and by 23.6 percent since 1998 (Trading Economics, 2022a). The international trade balance was negative in 2000, totaling around 1,278.7 million USD, and this tendency has continued to this day (Trading Economics, 2022a). The relative proportion of goods and services imports and exports as a percentage of GDP grew, reaching 58.8 percent for exports and 64.1 percent for imports in 2000 (Trading Economics, 2022a).

European nations are Bulgaria's biggest trading partners, accounting for almost half of all international commerce (Trading Economics, 2022a).

The formation of a relationship between the country's specialty in the sphere of research and exports is evidence of the influence of international commerce on innovation in the Bulgarian economy. Chemicals and fuels, as well as machinery and equipment, are the country's principal exports. The manufacture of chemicals and chemical products is the most inventive sector in relation to the extent of R&D carried out, accounting for 35.9 percent of all research in the industry (Karadima, 2021).

Furthermore, the link between the size of Bulgarian firms and the number of their exports is intriguing. Foreign commerce is dominated by large corporations. The percentage of SMEs in exports is minimal, owing mostly to non-tariff restrictions such as the lack of an ISO 9000 certificate held by only 320 Bulgarian enterprises, a lack of established market channels, registered trademarks, and so on (Karadima, 2021). With several caveats, this leads to the conclusion that, while being insufficiently inventive in terms of R&D spending trends, large enterprises maintain their leading positions in overseas trade as a result of an accumulated innovation potential.

Figure 6: Foreign Direct Investment in Bulgaria (billion USD)



Source: World Bank

Figure 6 represents FDI in Bulgaria. According to it, similarly to the levels of PDI in 2008 when the financial crisis happened, the FDI experienced a growth, however, nothing like PDI sector, foreign funding experienced significant downfall after the crisis and between 2010 and 2018 it remained at an almost unchanged low level. In recent years, it could be observed that there is a positive tendency which means that there is more PDI in the country.

2.4 Stakeholder factors influencing entrepreneurial innovation in Bulgaria

The management, administration, and organization of society over the implemented innovation activities, as well as their influence on economic development, are critical in expanding innovation activity in small open economies. Their performance is heavily influenced by national innovation policies and techniques to developing and implementing them. The activities of non-governmental organizations, as well as the state, have a considerable direct and indirect influence. In general, the factors influencing the environment in which innovation process are created and interact could be classified as ongoing processes of national economic system transformation. They include four main stakeholders: firms, governmental organizations, non-governmental organizations, and consumers.

2.4.1 Government

The relationship between government organizations and entrepreneurial innovation in Bulgaria is extensive, and the government's effect on all aspects of the innovation process can be crucial.

Governments are not concerned about supporting or controlling entrepreneurial innovation for its individual wellbeing, but rather regarding the socioeconomic, and political ramifications. The Bulgarian government began supporting entrepreneurial advancement in recent years since it has been proven to be a significant contributor to economic development. Similarly, innovation is fostered to increase productivity and therefore lower inflation. As well as to enhance the country's global standing and stabilize payments status (Britannica, 2022b). However, the Bulgarian government, is at the same time concerned regarding the effect of the

negative consequences of entrepreneurial innovation, such as, unemployment and recruitment. In this instance, regulations may be aimed at controlling rather than promoting emerging technology. However, in none of these cases is the relationship between the social purpose and technology straightforward or unidirectional (Britannica, 2022b). For example, while technical advancements may have contributed to pollution, they also must have occurred in order to mitigate it. The fundamental argument is that in an entrepreneurial oriented society, the process of innovation is inextricably linked to many, if not most, of the society's important social goals, and that innovation is therefore a critical component of most government programs (Mason, 1990).

Beyond these reasons for the government's interest in innovation, there are compelling justifications for the government to interfere directly to affect innovation in particular circumstances. These interventions are frequently justified by market failures or shortcomings (Mason, 1990).

Growth rates differ regularly due to two factors: the state and the entrepreneurial sector. Those two factors, however, are not mutually inconsistent. Government regularly provides incentives for entrepreneurship to develop and to thrive throughout the early stages of continuous expansion. Several economies have seen governmental influence in the development of transportation, electricity, and other necessary amenities. The government also provides financial incentives and subsidies in other circumstances. Another important role that governments serve in the initial stages is in developing funding and money channels in which entrepreneurs should have assurances and security. It is impossible to envision sustained and fast economic growth in the absence of financial intermediaries serving as intermediaries among lenders and business borrowers (Britannica, 2022b).

The underlying cost of encouraging growth is always a short-term reduction in present consumption. The economic benefits of the increased investment become apparent only in the future. Similarly, present consumption may always be increased by disregarding the future. It is also feasible for present output to be so bent toward meeting immediate requirements that an economy's productive potential gradually diminishes if capital goods are not replaced. There are an unlimited number of choices between the extremes

of utter disregard for the following generations and reducing present consumption to a bare subsistence level (Britannica, 2022b).

Specialists have questioned the socioeconomic value of economic progress in a sophisticated industrial society, arguing that governments should have a prominent influence in deciding the proper pace of growth. They ascribe expansion to such unfavorable effects of industrialization as increased air and water pollution, traffic congestion, deforestation, and a general loss in man's capacity to enjoy life's true amenities (MIT, 1978). As previously mentioned, growth is essentially a metamorphosis in which some sectors gain in significance before declining as the demand for their product gets increasingly saturated. Demand transfers to other sectors and items in relative terms. This all suggests that resources could be reallocated throughout time. Other things being equal, the quicker these materials flow, the faster growth and change may take place. The argument may be recast using this transformation. Slower per capita consumption growth will slow the pace of resource transmission, but it could also result in a somewhat more livable environment. Human wellbeing growth rates that include non-consumable goods could even be increased. In a development-oriented civilization, requirements emerge faster than the industrial machine can provide them, leaving people more dissatisfied and uneasy than they would be if growth was not so heavily regarded. Critics contend that in contemporary industrial society, consumption arises to rationalize output rather than production being taken out to satisfy the requirements of consumers. Those considerations challenge the traditional understanding that the most important economic goal of a modern society is growth (Britannica, 2022b).

2.4.2 Firms

Firms are the backbone of the Bulgarian economy. They provide over 65% of added value and over 75% of all jobs in the country. The vast majority of these enterprises exist because of the entrepreneurship and creative spirit of entrepreneurs. In the challenging economic circumstances in Europe, innovation and high-tech enterprises are not just quickly growing, but also very resilient. The Business environment in Bulgaria represents the

foundation of the country's long-term economic development, innovation, and growth (Ovcharova & Krachunov, 2013).

Both non-monetary and monetary innovation government welfare programs are connected with an expansion in individual business openness, in terms of the number of external stakeholders to collaborate and the quantity of open innovation activities they carry out. However, the prevalence of previous creative endeavor inside the organization could have a detrimental impact on the relationship between encouragement and accessibility. Public support has a larger influence on less developed businesses and a lesser impact on innovative ventures that are already established, implying the existence of crowding-out effects. (Erdin & Ozkaya, 2020). Furthermore, the findings imply that non-financial help is more directly correlated with openness than money support. For policymakers facing significant financial restrictions, this suggests that government and institutions policies are more essential than money in supporting open innovation.

2.4.3 NGOs

According to the European Commission, there is a need to transition from helping start-ups to encouraging social innovation and entrepreneurship in the public, private, and nonprofit sectors as a transformational engine for socioeconomic growth. In Bulgaria, the contribution of non-governmental organizations (NGOs) to total employment in education, health, social work, and other services has increased. In terms of where resources are focused and used in the innovation ecosystem, the creative and democratic function and potential of NGOs must be acknowledged and leveraged in a social innovation ecosystem. When developing initiatives and establishing programs, it is critical to take into consideration the need of actively involving the community as well as individual ventures and businesses. Individuals' and prospective beneficiaries' demands and preferences are central to NGO activity (Luxmore & Hull, 2011). NGO's can swiftly identify and solve social concerns, create realistic solutions, and promote entrepreneurial innovation because of their expertise of the importance of the problem. Some Bulgarian NGOs involved in inspiring and supporting innovation and entrepreneurial activity among the Bulgarian society are:

Table 1: List of Bulgarian NGOs supporting innovation

<p>Vraca software society</p>	<p>The organization's objective is to establish a successful IT community in the Bulgarian town Vratsa, which could generate long-term occupation for people in the area and thereby contribute to the local development.</p>
<p>Re-act association</p>	<p>The primary purpose of this organization is to improve the living circumstances and chances for professional and personal development of socially disadvantaged children in institutional or foster care. They are conducting a variety of social programs to assist this target demographic. For example, establishing a bike store where youths from correctional facilities are educated to work and integrate into society.</p>
<p>Baba Residence in Bulgaria</p>	<p>Baba Residence was first introduced in 2015. The major goal of Baba Residence is to stimulate their integration in cultural and social entrepreneurial solutions for Bulgarian communities. New projects, products, services, and events that bring economic and cultural potential to our nations' neglected regions are born. Another key outcome of the encounter amongst young urban people and senior village residents is the germ of solidarity — between generations, between rural and urban communities, and between culture.</p>
<p>Bread house network</p>	<p>Bread House hopes to foster inter-cultural discussion, cooperation among different generations, professional and ethnic groups. People contribute their creative abilities, ranging from music and poetry to theater and needlework, throughout the baking time. The mission of the House is to help people discover their creative abilities and recognize local assets for problem-solving – instead of delving into local problems.</p>

Source: Andonova et al., 2021

2.5 Development of Entrepreneurial Innovation in Bulgaria

When talking about entrepreneurship and start-ups in Europe, Sofia, let alone Bulgaria, is not recognized as an innovation hub. Even though the country became a member of the European Union eleven years ago and today holds its first ever Presidency of the Council of the European Union is currently confidently developing an emerging start-up ecosystem that is expanding from its capital city Sofia to several other big cities (Georgieva & Yalamov, 2020).

The exponential expansion of start-ups, mostly export-driven and focused in the ICT sector, could be considered a natural process that has changed significantly without the urgent need of any new public policy and government incentives in the entrepreneurship field. Indeed, the government provided a significant stimulus to the sector in 2010 by allocating EU financing to private funds and allowing the development of venture capital firms (Ganev et al., 2013).

As a result, despite a lack of a planned long-term policy, the initiative gained traction in 2012, when two start-up accelerators were established in Sofia as part of the JEREMIE program (Georgieva & Yalamov, 2020). They were funded by the European Union through the Bulgarian Ministry of Economy and administered by the European Investment Fund. As a consequence, resources were invested in more innovative start-ups, with equity investments of up to 200,000 USD (Georgieva & Yalamov, 2020). According to Start-up Heatmap Europe, Sofia ranked third in Europe in terms of the amount of accelerated start-ups in 2013 and 2014, just behind Dublin and London but ahead of Berlin, Paris, and Amsterdam. Simultaneously, due to public and private investments, early-stage small and medium-sized firms (SMEs) in Bulgaria were supported (Georgieva & Yalamov, 2020).

Evidently, the provision of funding during the EU 2007-2013 annual financial framework provided a boost to a number of start-ups from Bulgaria and Southeastern Europe – approximately 20-30% of all Bulgarian start-ups at

the time were founded by entrepreneurs from neighboring countries, with a significant number of the entrepreneurs coming from the Bulgarian immigrant community (Sofia Invest, 2020).

Despite efforts to avoid gaps between budgeting periods, seed finance proved to be more restricted during the first portion of the continuing budget 2014-2020 framework (Sofia Invest, 2020). This is due to delays in the introduction of new financial instruments as well as the supply of money for development and improvements to previously funded enterprises. Nonetheless, the early rounds of funding succeeded in creating a local excitement and putting Bulgaria and more specifically Sofia in the attention of business angels and national platforms for equity and debt investments, making launching a start-up more appealing and enabling access to funding (Sofia Invest, 2020).

The problems that await the emerging start-up ecosystem are inextricably tied to some of its benefits. The majority of the firms funded were in the ICT sector, which appears to be a difficulty when designing new governmental financial instruments, because they should incorporate a broader range of industries, including ones that are less appealing to investors. Entrepreneurial innovation in Bulgaria is strongly export-driven with 78% of companies operating on foreign markets. Additionally, only one third of companies do not generate revenue from exports, while 52% of those that are exporting accounted 76-100% of their revenue from exports (Georgieva & Yalamov, 2020). This is a positive reflection of the sector's competitiveness; however, aside from its growing reliance on foreign consumers, it continues to operate without connecting with the rest of the domestic business, which still operate without implementing innovation and thus does not yet fully benefit from the expertise and knowledge of its local digital pioneers. Last but not least, 31% of digital enterprises in Bulgaria seek to employ foreigners, indicating that the industry is seeking for new sources of talent due to a lack of competent labor at home (Georgieva & Yalamov, 2020).

Aside from the ICT industry, entrepreneurship, and SMEs face two key limitations, among others: scarce entrepreneurial activity and perceived deficiencies in intellectual property rights protection. Whether the latter is

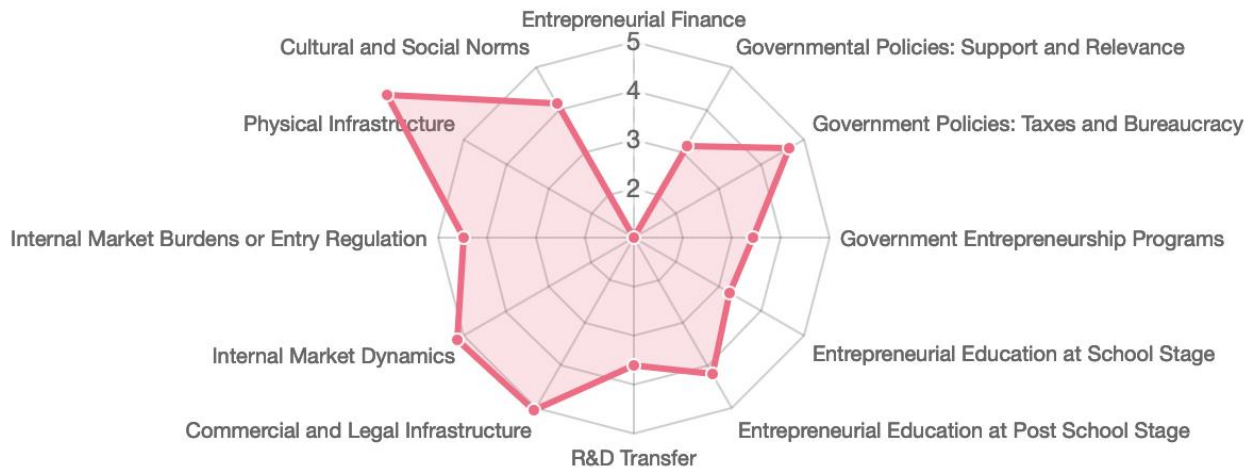
difficult to quantify, the former is clearly argued in the Global Entrepreneurship Monitor's most recent reports regarding entrepreneurship in Bulgaria. The total early-stage entrepreneurial activity (TEA) in Bulgaria in 2016 was 4.8% (3.5 percent in 2015), with 2.6% of the adult population participating in developing entrepreneurial ventures and 2.2% being new business owners (GEM, 2022). Despite this low rate, which is among the world's lowest, a reasonably significant percentage of these new enterprises survive long enough to be recognized today as established companies.

The GEM reports suggest that Bulgaria has a small but dedicated core of innovative businesses that innovate with exceptional efficiency. Indeed, this pattern of entrepreneurial innovation shows that there may be an ecosystem with both established and early-stage businesses: a limited set of organizations engaged in innovation and a much larger number of organizations that are not. The key challenge for public policy will be to promote the culture of innovation to the second group, therefore expanding the foundation on which the Bulgarian economy's global competitiveness is built (Georgieva & Yalamov, 2020).

2.5.1 Implementation of entrepreneurial activity and supporting innovation

Entrepreneurship may produce considerable economic growth in an area by creating jobs and driving the development of inventive new ideas, technology, and services. To properly support such growth, a number of aspects must be in place, including an innovation pipeline, skills-building tools, mentors, and access to funding. Several structural characteristics have influenced the evolution of the Bulgarian environment in comparison to others throughout the world. Strong linkages to research institutions, for example, are a major component of most start-up ecosystems, driving the innovation that eventually becomes the next wave of commercialized innovations and spinoffs. Academia, on the other hand, is not a driver of entrepreneurial innovation in Bulgaria, forcing it to emerge from somewhere else. Furthermore, the country confronts two major issues: education - specifically, developing marketing and business skills; and promoting the country's assets - highlighting the country in order to induce new workforce, investment, and businesses to migrate to Bulgaria (Galabova, 2012).

Figure 7: Spider diagram of entrepreneurial framework of Bulgaria; conditions in 2019

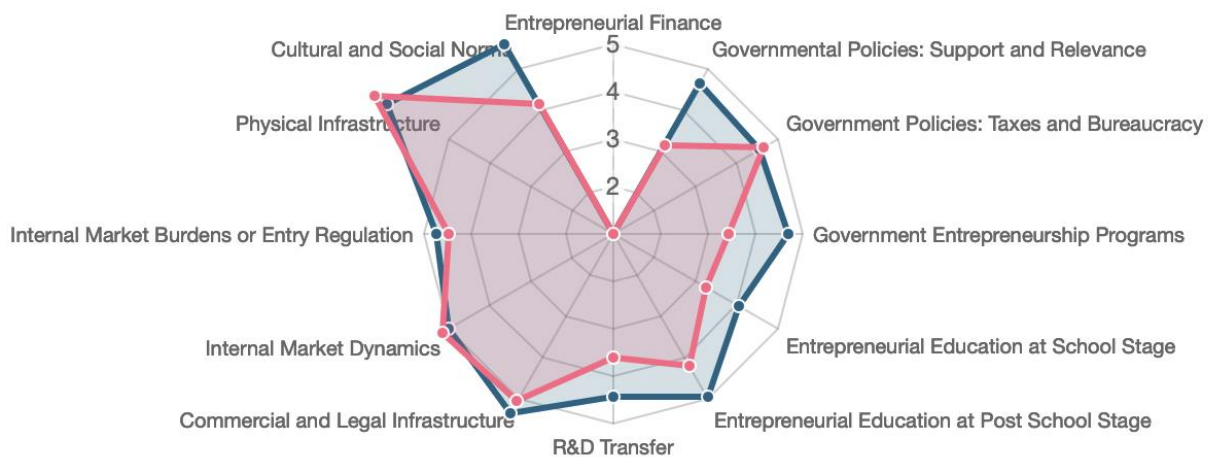


Source: GEM

Figure 8: Spider diagram comparing global and Bulgarian entrepreneurial framework

Red – Bulgaria

Blue - Global



Source: GEM

The entrepreneurial framework of a country is complex and consisted of many different factors including governmental policies, physical infrastructure, market dynamics, R&D, and others. Figure 7 represents the entrepreneurial framework in Bulgaria. It reflects that the factor that is most developed is the physical infrastructure of the country. Followed by the internal market dynamics, legal infrastructure, and governmental policies. This means that the physical infrastructure of the country is favorable for entrepreneurial activities. Additionally, a very important factor of the framework is the government policies, and more specifically the taxation in the country. One of the main contributors to a favorable entrepreneurial environment in Bulgaria is the low taxation. However, in terms of R&D and entrepreneurial finance, the country is performing very poorly and prevents the entrepreneurial activity in the country from more rapid and stable development. Figure 8 represents a comparison between the global entrepreneurial framework and Bulgaria. Even though it is evident that Bulgaria falls behind with most of the factors, the country is performing well with physical infrastructure, internal market dynamics and governmental policies.

2.5.2 Start-up environment in Bulgaria

There are various examples of a giving-back attitude in the start-up and technological communities. Successful communities are typically ready to share their expertise and resources to the following generation of entrepreneurs. Despite, the communist background of Bulgaria, the vast majority of the population in Bulgaria is still attempting to develop important characteristics such as self - confidence and optimism, as well as the desire to take calculated risks and think creatively (Zapryanov, 2021). Youth of today, find themselves in a different situation, given the opportunity grow with digital technology and the ability to travel and see diverse cultures from across the globe. They are often more progressive and desire to induce a positive change in their community (Zapryanov, 2021).

Despite having a successful record in the IT sector, Bulgaria lacked a start-up ecosystem ten years ago. Since then, however, the country has

progressively transitioned from an outsourcing to a crucial innovation engine. Currently Bulgaria fosters roughly 400 businesses, more than 15 venture capital and growth investment companies, as well as an increasing number of accelerators, and non-profit organizations (Nikolov, 2022). Currently there is around €200M in VC funding available for national start-ups since the beginning of 2021. (Nikolov, 2022).

Table 2: List of Active Investors in Bulgaria

AE Ventures (Sofia)	An investment firm focused on sponsoring early-stage start-ups and encouraging cooperation and development within the blockchain ecosystem.
Blackpeak Capital (Sofia)	A private equity investment fund specializing on growth equity investments in the rapidly growing Southeast European SMEs.
BrightCap Ventures (Sofia)	A venture capital company that invests in early-stage firms with viable technology and considerable global development potential.
CEO Angels Club (Sofia)	A group of Bulgarian senior executives and entrepreneurs who invest their private capital in seed-stage start-ups in exchange for ownership.
Eleven Ventures (Sofia)	An early stage focused VC centered on entrepreneurs from Southeastern Europe, with more than 300 mentors and as much start-up founders from more than twenty countries in its alumni association.
Empower Capital (Sofia)	A €21 million facility established by the European Investment Fund with the aim of providing emerging Bulgarian enterprises with access to equity and quasi-equity capital.
Impetus Capital (Sofia)	A privately owned investment firm that specializes in private equity and invests in small and mid-sized businesses.

Innovation Capital (Sofia)	A €15.6 million venture capital fund with the aim of providing Bulgarian firms with access to equity and quasi-equity finance.
LAUNCHub Ventures (Sofia)	An early-stage venture capital firm aggressively engaging in SEE and CEE digital start-ups in seed and Series A stages, which recently announced a €44 million first close for a new fund with a total target size of €70 million.
Morningside Hill Fund (Sofia)	A €38.5 million fund that invests in minority equity or comparable holdings.
NeoVentures (Sofia)	An open-ended investment firm with entrepreneurial resources that invests in early and late-stage space, artificial intelligence, and health start-ups.
New Vision 3 (Sofia)	A €23 million fund investing in AI, FinTech, Blockchain Technologies, and the Shared Economy.
PostScriptum Ventures Bulgaria (Sofia)	A VC involved in sustainable investments in the energy sector.
Silverline Capital Bulgaria (Sofia)	Over €42 million mezzanine fund.
Sofia Angels Ventures (Sofia)	A €13 million venture capital fund supported by the European Investment Fund that focuses on seed-stage start-ups from Bulgaria, SEE, and CEE and plans to collaborate with angel investors.
Urban Impact Ventures (Sofia)	A new Bulgarian-Dutch impact investment fund specializing on urban digital start-ups.
Vitosha Venture Partners (Sofia)	A €26 million early-stage venture capital fund investing in innovative Bulgarian firms.

Source: Yocvhev, 2022

The Bulgarian capital Sofia ranks third in Europe in terms of cost-effectiveness and foreign direct investment strategy, according to the fDi European Cities and Regions of the Future 2020-21 study. Simultaneously, Bulgaria has a diverse pool of over 65,000 IT experts, which is regularly

supplemented by 15 universities, 220 high schools providing ICT programs, and several private academies (Manolcheva, 2022). In a word, building a strong technology firm here is significantly cheaper than in most big start-up centers throughout the world.

Moving ahead, the Bulgarian start-up ecosystem seems to be well-positioned to grow, especially in industries such as financial services, artificial intelligence, and advanced tech. The accomplishments of local founders are not only a vehicle for bringing talents to the country, but they also serve as an inspiration for rising number of aspiring entrepreneurs to establish a venture in the country. Bulgaria has also developed strong relationships with its diaspora: the successful investors and entrepreneurs living in other countries (Manolcheva, 2022).

Numerous organizations in Bulgaria are dedicated to sust development and the advancement of start-up expertise and mindset, such as local branches of Endeavor and Founder Institute in Bulgaria, as well as the Bulgarian Private Equity and Venture Capital Association (BVCA) and the Bulgarian Start-up Association (Manolcheva, 2022).

However, several weaknesses must be addressed before the ecosystem can further improve. , Government efforts are still sporadic, if not non-existent when it comes to start-up friendly regulation. Bulgaria's position as a technological hub is largely due to the private sector. Similarly, there are no migration strategies for bringing in senior-level marketing and sales employees from outside the state. Outside of the banking business, corporations are still occasionally involved in the start-up scene. Last but not least, innovators are focusing their efforts mainly in one region - the capital Sofia. While entrepreneurial communities are expanding in other big cities like as Burgas, Varna, and Plovdiv, there are still improvements to be made in less developed Bulgarian cities (Nikolov, 2022).

There are three primary focus sectors in Bulgaria's start-up ecosystem: health technologies, artificial intelligence, and finance. Similarly, local businesses have been implementing AI-based solutions in a range of fields in recent years, including finance, health, corporate software, agriculture, marketing and tourism. With over seventy fintech startups, various corporate

fintech accelerators, and fintech organization focused at further growing the ecosystem, this sector is possibly one of the most advanced in Bulgaria. Another fast rising field is promising applications in industries such as bio convention, 3D printing, and digital health services (Manolcheva, 2022).

2.5.3 Sustainable development in Bulgaria

Sustainable development includes ecological, economic, social improvements. Opportunities to optimize these advancements are strongly dependent on the implementation of innovation, technology, and the institutional conditions set by government policy (Vollenbroeck, 2002).

Sustainable development is a primary concern for the Bulgarian government. Bulgaria is dedicated in the contribution of attainment of the Sustainable Development Goals on a national and worldwide scale. In recent years, Bulgaria has established a model of sustained economic growth based mostly on exports. External imbalances are mitigated by the Currency Board and strong macroeconomic policy (Dimitrova, 2014).

Bulgaria announced a political commitment to pursue the Sustainable Development Goals in September 2015, when it adopted the 2030 Agenda for Sustainable Development as a comprehensive plan in response to global issues (SDKP, 2022).

One of the country's key benefits is its predictable macroeconomic climate. There are favorable conditions for boosting investment. Bulgaria is one of the European countries with the lowest tax rates. International rating charts corroborate the country's long-term credit rating's steady outlook. Bulgaria is becoming more popular as an investment destination for high-value-added manufacturing and commercial services. Foreign direct investment is estimated to account for 2.8 percent of GDP in 2020, up from 2.2 percent in 2016 (SDKP, 2022). It is promising that the ICT industry is responsible for more than one-third of new employment generated by small and medium-sized businesses between 2011 and 2017, and that overseas demand for the technologies sector, communication services, and consulting as a key driver of development (SDKP, 2022).

Bulgaria's inaugural VNR provided a chance to assess accomplishments, identify obstacles, and plan next steps toward implementing the 2030 Agenda. It addresses all 17 Goals. The 2030 Agenda, however, cannot be pursued solely by institutions. It necessitates the dedication and active engagement of all segments of society. The country values all three pillars of sustainable development equally. Respect for human rights, gender equality, and the idea of leaving no one behind govern our policies. This notion is central to the most major strategy paper.

Bulgaria has the largest proportion of women working in IT in Europe, estimated at 27%. Women account for 53% of the country's engineers and scientists. Bulgaria is attempting to narrow the gender salary gap and promote equality in decision-making in this manner (Dobрева & Koleva, 2015).

In recent years, sound public finances and a favorable macroeconomic climate have enabled continuous economic growth: 3.8 percent of GDP per capita in 2018 (Dimitrova, 2014). Bulgaria has already reached a 20.53 percent share of gross final energy consumption from renewable energy and aims to expand that percentage to 27 percent by 2030 (Dimitrova, 2014).

The government acknowledges the critical need for maintaining progress toward sustainable development. Therefore, the country seeks to reach EU objectives for the SDGs as an EU Member State. However, major obstacles to SDG implementation remain. One of the key objectives is to reverse the negative demographic trend. Poverty and inequality, especially across areas, are barriers to SDG implementation. Underperformance in schools indicates that greater work is required to give a high-quality education to all students (Dobрева & Koleva, 2015).

One of the most critical challenges ahead is the establishment of a national system for SDG coordination and implementation. This mechanism should be maintained under the executive branch. Among its primary goals should be to monitor SDG implementation, ensure coordinated discourse, and formulate policies for sustainable development. The state should also prioritize spreading awareness regarding the 2030 Agenda and collaborating with stakeholders (Vollenbroeck, 2002) (SDKP, 2022).

2.5.4 Dronamics

With the introduction of robotic supply, the logistics sector is fast evolving in Bulgaria and not only. Drone innovations are the most obvious, with trial operations in specific villages currently carrying modest commodities and meals. However, a Bulgarian start-up has far higher goals than modest supply; it aims to transform the entire industry by democratizing freight and heavier shipments across longer distances. Dronamics, founded seven years ago by brothers Svilen and Konstantin Rangelovi, hopes to commence commercial flights by the summer of 2022 and has already formed relationships with logistics corporate giants Hellmann and DHL (Dronamics, 2022). Despite the fact that the start-up has yet to construct a meaningful business, it is evolving and increasing in terms of both staff and revenue (Dronamics, 2022). As evidenced by its dominance in the sector rating for machine builders in "Cheetah." In 2020, the revenues of the Bulgarian venture "Dronamics" will increase by more than 240 percent to BGN 4.1 million (Banusheva, 2022).

Svilen and Konstantin Rangelovi launched Dronamics in 2014. The first one is an entrepreneur, while the second brother is an aviation engineer. The idea for the start-up was invented when the brothers joked about building their own drone so that they could transport cheese from the Netherlands (where one of the brothers lived at the time). Therefore, they decided to build a drone called "Black Swan". It can transport cargo weighing up to 350 kg over a distance of up to 2500 miles (Banusheva, 2022). The original purpose is to deliver cargo to remote locations with inadequate infrastructure. Initially, the brothers intended to create a "flying pastry chef" to convey items straight from manufacturing sites to consumers. The concept attracted the attention of investors. Eleven was the first to support the idea. Following them were the Austrian SpeedInvest followed by a few private investors, including Telerik co-founder Boyko Yaramov and others. The idea and model were gradually changing, and the company's goal was to establish a network of partner airports through which to handle supply lines - there are now over 40 in 13 countries. Dronamics is now in the process of obtaining a freight drone license (Banusheva, 2022).

"We developed the first relationships with logistical behemoths such as Hellmann and DHL, launched our network of over 40 airports in Europe, and applied for a license in the European Union in the previous year. We are also drawing more and more like-minded individuals," Svilen said in an interview for Capital, adding that "we now have over 50 investors - entrepreneurs and specialists in aviation, logistics, and technology from Bulgaria, Europe, North America, and Asia, which are likely to rise dramatically." (Banusheva, 2022).

According to him, the progress is the consequence of seven years of labor, not just one. "We have created a solid foundation, learnt numerous lessons, and will now move quicker in all areas - human capital, customers and partners, resources, markets, and funding. We will achieve a number of significant milestones next year, including the first flight, the first factory, the first certified airline for freight with drones, and the full validation of the previous 7 years of healthy work with the entire team ", said Svilen Rangelov. He emphasizes that the most encouraging aspect for the firm is that not only have EU rules changed substantially, putting Dronamics ahead of the competition, but we are also "at least three years ahead of all our competitors internationally." (Banusheva, 2022) (Zapryanov, 2022).

Agreements reached with industry titans such as Hellmann Worldwide Logistics and DHL are also cause for hope. In the first example, Dronamics will collaborate with Hellmann to start a cross-border supply service next year. In the second, DHL may utilize 4,000 Dronamics-operated drones for its logistics network in Europe by 2030, in businesses such as e-commerce and pharmaceuticals (Dronamics, 2022). The founders' vision is for the firm to operate courier lines for deliveries between partner airports rather than to build drones. Their number is always increasing, and the network can eventually reach thousands of partners (Banusheva, 2022).

"We aim to begin commercial flights within the next 6 to 9 months, after receiving a freight drone license. We plan to have commercial flights with licenses in both Europe and the Pacific" Svilen Rangelov said. According to him, the company's mission is to provide a solution that everyone, not only premium clients, can afford anywhere. "By 2024, we will have touched all other continents," Dronamics' co-founder added (Banusheva, 2022).

Bulgaria has lacked an aviation industry for decades, and the majority of experts in this field are based elsewhere. Many of the engineers participating with Dronamics have graduated from universities overseas, and it is critical that the company's founders return here. "Certainly, the rate of growth will continue, if not accelerate. Our objective is to develop as much as possible in Bulgaria, but as a global firm, we must search for the greatest person for the task, no matter where it is" Svilen Rangelov said (Banusheva, 2022). Currently, the Bulgarian company is owned by the UK-based Dronamics Global Limited, with the two brothers holding more than half of the shares. Eleven Capital and Speedinvest are both minor shareholders in the British firm (Zapryanov, 2022).

If the growth ambitions eventuate, Dronamics will no longer be a corporation with hundreds of millions of dollars in revenue like Cheetah. "Our goal is to fly to hundreds of communities throughout the world in five years, connecting at least a billion people within an hour of Dronamics' drone port." Currently Dronamics is actively developing measures for early access for Bulgarian investors (Banusheva, 2022).

3 Methodology

This study will collect both primary and secondary data in order to acquire a better understanding of the subject. When the results and conclusion incorporate primary data, they could either validate or reject the literature review. This information may be acquired in a variety of methods, including questionnaires, surveys, interviews, and case studies. Secondary data, on the other hand, is derived from previously done research and can be found in books, articles, journals, or government statistics. Secondary data, obtained from a variety of trustworthy sources, should also be used to validate the study's results. For the purposes of this study, both primary and secondary sources are utilized to acquire a better knowledge of the study and to answer the thesis' research questions. A descriptive case study methodology is implemented to guide the data collection and analysis. Therefore, after gathering secondary data from scientific journals, statistics, books, reports, the primary data will be collected through expert interviews.

Additionally, the primary data will be analyzed, and a conclusion will be formed based on the results and the data from the secondary resources.

3.1 Research Design

In order to meet the study's objectives, a descriptive case study method will be used. The research approach will be utilized to develop a conclusion that will address how the Bulgarian economy is influenced by the country's entrepreneurial activity. To gain a deeper understanding of the topic, data will need to be gathered from a variety of sources, including publications, statistics, case studies, and expert interviews. Because of the mix of qualitative and quantitative research methodologies, the research will be able to examine and expand on a theory that emerges from the created analysis. A combination of variables and arguments will be evaluated in order to develop a conclusion that will answer the study's research question: ***Why is entrepreneurial innovation important for the economic development of Bulgaria.***

3.2 Expert Interviews

Throughout the research, structured expert interviews will be performed to acquire a better knowledge of the economic situation in Bulgaria as well as the development of entrepreneurial innovation and its effects. This type of research approach was chosen because it serves best the purposes of the study. Since a descriptive case study methodology was chosen, the expert interviews will provide the most accurate and critically analyzed data. The participants will be chosen based on their work experience as well as their degree of competence in the subject matter. According to the requirements of the data collection, the respondents should be economists, company owners, or analysts who are familiar with the entrepreneurial and start-up activity in Bulgaria as well as the overall economic state of the country in order to collect accurate data.

For more adequate data collection, it will be necessary to have more than then volunteers with a variety of backgrounds. The interviews will be conducted in a professional manner, whether they are conducted in person or over email. Participants' private information will be protected in accordance with ethical standards, and their requests will be met to the

maximum degree feasible in order to comply to these standards. The interviewees will be told of the research's aims, and once the study is completed, they will be informed of the findings and the amount to which they contributed to those conclusions.

To gain sufficient information about the economic development in Bulgaria and the implementation of entrepreneurial innovation in Bulgaria, the questions will focus on five main categories – *Economic development of Bulgaria; Entrepreneurial innovation in Bulgaria; Supporting Innovation; Factors influencing entrepreneurial innovation; Implementation of entrepreneurial activity*. Before preparing the interview, a complex and detailed research will take place in order to gain information and formulate competent interview questions.

The questions from the first category *Economic development of Bulgaria* are designed to provide necessary introduction and background to the topic of entrepreneurial innovation in Bulgaria. The answers to the questions should create a clear picture of the current economic state of the country according to the interviewees which will also give context to some of the following questions and answers respectively.

The second category of the questionnaire is *Entrepreneurial Innovation in Bulgaria* which focuses on what is a good environment for entrepreneurship and which factors influence it. By obtaining answers to those questions, the essential factors for a healthy and stable entrepreneurial environment will be stated. Moreover, it will be discussed what is necessary for a more advanced and stable entrepreneurial innovation activity and Bulgaria. Therefore, it could be evaluated what is present and what is missing and should be improved.

The next section of questions focuses on *Supporting Innovation in Bulgaria*. It aims to discuss how can the entrepreneurial environment in Bulgaria be stimulated. Additionally, it discusses the factors that influence entrepreneurial innovation and their importance. It includes more specific questions such as “What can companies do to promote innovation in the country?” in order to gain deeper understanding of the sector’s influence within the country.

The fourth section of the questionnaire *Factors Influencing Entrepreneurial Innovation in Bulgaria* is responsible for addressing the stakeholders which influence the entrepreneurial activity and the implementation of innovation in the country. By answering the questions, the interviewees will provide their opinion regarding the governmental activity as well as the level of FDI and PDI which reflects the NGOs and the firms. This is important for the purposes of the study because it explains the role and importance of the stakeholders, as well as their influence and what should they do to support entrepreneurial innovation.

The last section focuses on *Implementation of Entrepreneurial Activity in Bulgaria* which aims to understand the interviewees' expert opinion regarding the start-up environment in Bulgaria and the potential consequences of Bulgaria's stimulation of entrepreneurial activity. Additionally, this section should provide an answer if Bulgaria is capable of stimulating the development of entrepreneurial innovation.

Most of the sets of questions are a follow up of the previous section, therefore the answers are expected to work only in the context of the previous answers.

3.3 Data collection and analysis

Data collection will be conducted through several different methods, including research of scientific articles, in depth analysis of statistics and expert interviews. The first step will include a thorough research which will be needed for the literature review and the preparation of the expert interviews. The literature review will be prepared before conducting the interviews so that a sufficient amount of information is collected and analyzed beforehand. For the preparation of the expert interviews, the participants will be contacted through email and a meeting will be scheduled. The time dedicated for conducting the interviews and analyzing of the data is planned to be one week. The next steps include categorization of the collected data and analysis. The information will be categorized in the following sections: *Economic development of Bulgaria; Entrepreneurial innovation in Bulgaria; Supporting Innovation; Factors influencing entrepreneurial innovation; Implementation of entrepreneurial activity*

In order to be clearer and more effective, the paper will include graphs and tables which will be used as a specific depiction of a given information. Since the topic involves the discussion of economic factors and features, the graphs will be a helpful tool for analyzing and understanding the information better.

3.4 Limitations

The limitations of using descriptive case study methodology include the mix of qualitative and quantitative research design which could result in different results and evaluations potentially.

Collection of qualitative data in the form of expert interviews could have several limitations. For this specific study, the type of interviews that were designed were in-person structured interviews. However, three of the interviews could not be performed in-person because the interviewees were in a different country. Therefore, those interviews were conducted via email which could result in biased answers because the participants had time to think through the questions rather than answering on the top of their mind, unlike the participants which were interviewed in-person. Moreover, they could answer the questions in different order, which could result in biased answers again. Due to the character of some of the participants some of the interviews were conducted in a more conversation like manner which resulted in semi-structured interviews. Additionally, two of the interviewees did not feel as competent to answer the last three questions regarding the start-up ecosystem in Bulgaria and therefore those questions were not answered resulting in less data to analyze in the discussion section.

Other limitations regarding the expert interviews include that some of the interviews were performed in Bulgarian language while others were done in English language. This could result in change of context due to translation.

Furthermore, other possible complications that might arise during the collection of data is the analysis of the answers of the interviewees since they could have different experience, opinion, and approaches. Moreover, it is possible that the interviewees are biased in some way which could reflect on their opinion and analysis of the topic.

4 Results and Evaluation

4.1 Expert interviews data analysis

This section provides a summary of the findings from the main and secondary data gathering. As well as the technological procedures utilized to supplement the data described in the Methodology section. In accordance with the analytical results and the corresponding contributions to the original research question concerning the impact of entrepreneurial innovation on the economic development of Bulgaria.

4.1.1 Economic development of Bulgaria

On a European scale, Bulgaria is still a developing economy that lags behind other EU countries in nearly every KPI. This could be perceived negatively, but according to some of the interviewees it puts the economy in a stronger position inside the EU. Bulgaria is still a developing country, which means that there are prospects for growth in almost every industry. This implies that the government can accept technology advances more quickly and easily, and it also creates a favorable atmosphere for investors and initiatives. Additionally, while Bulgaria is one of Europe's poorest nations, it has made significant progress in several areas since joining the European Union. However, the nation has been experiencing various political instabilities since last year as a result of the shifting political groups that presently form Bulgaria's acting government.

“Bulgaria is a young democracy and a young capitalistic economy. Only 3 decades ago the ideology of government for both politics and economics was based on the notions of communism. Private property was something reserved for a selected few and economic prowess / private interests were not something stimulated or encouraged by society or the culture. This means that we are still inexperienced when dealing with economic development or private enterprises.” According to interviewee #1 as a developing economy, Bulgaria is still yet to gain more experience and thus stimulate economic growth and trust.

Interviewee #6 suggests what is needed for the economic development of the country: “Reforms in key areas such as the judicial and educational systems of the country are needed so that there is economic prosperity. Moreover, proper state support for private businesses is needed in order to achieve advancements in the economy. Lastly, state production and manufacturing, as well as agricultural projects aiming export are needed to better the economical state.”

4.1.2 Entrepreneurial innovation in Bulgaria

An analysis of the interviews concludes that there are two major characteristics needed to create a favorable climate for innovation in Bulgaria. First and foremost, there should be a robust educational system that fosters and encourages a competitive and knowledge-based society. Every educational institution should concentrate on achieving excellent achievements and training individuals to build additional abilities that will be required in their professional route to foster innovation.

Second, the government should adopt a long-term strategy and program to encourage innovation. With a solid team of specialists with a demonstrated track record and understanding on the issue, such a program would stimulate the country's innovative growth. Last but not least, if Bulgaria is to establish itself on the world innovation stage, an annual budget dedicated to innovation development is required.

“... while there may be a Ministry of Innovation and Growth, there have been no tangible results from it so far. There are funds set aside for such support; however, receiving financial support from the state could prove quite challenging unless the person behind the start-up does not have another business...” Interviewee # 3 discusses the entrepreneurial innovation activity in Bulgaria faces a problem in the lack of governmental support again and focuses on the lack of funding.

“Stability and opportunity are the two factors that are most important for the characterization of an environment as “good for innovation”. Stability means that investors are more prone of risk taking, which means investing in riskier and hence more innovative projects. Another factor that is extremely

overlooked, when it comes to innovation, is that very often innovation is born out of the necessity of various kinds of resources (the lack of these resources). When you are forced to achieve something with less than required, you innovate and find a way to achieve it more effectively.”

The responses from the interviews suggest that entrepreneurial innovation in Bulgaria is still facing fundamental problems that hinder the development of the sector.

4.1.3 Supporting innovation in Bulgaria

Bulgaria has a thriving start-up and entrepreneurial environment, as well as a growing venture capital (VC) community. Sofia is home to the majority of VC businesses. Apart from providing possibilities for entrepreneurs from all over the globe to connect with domestic firms and investors, Sofia offers a transnational corporate ecosystem and the opportunity to get introduced to international investors and stakeholders.

The Bulgarian Private Equity and Venture Capital Association (BVCA) brings together venture capital funds, private investors, and the Bulgarian entrepreneurial society. The organization collaborates with its participants to enhance the business climate and encourage entrepreneurial innovation and development in the nation as well as the CEE region. A rising group of angel investors, in addition to early-stage and seed funding, supports idea-only or early-stage firms. In Sofia, there is a powerful entrepreneurial culture and a wide range of organizations that may assist start-ups with support and information, as well as help them grow and expand.

In 2018, the Bulgarian ecosystem established its own start-up organization to serve the needs of emerging entrepreneurs and developers. BESCO is a non-profit organization that connects start-ups with institutional and private investors, the government, and other players in the entrepreneurial ecosystem.

Furthermore, according to Interviewee #1, money and adequate education are the two most significant variables impacting the ongoing growth and promotion of innovation in Bulgaria: “Two sectors that intertwine, are finance and education. Like discussed in the previous question - Bulgaria must

heavily invest in its education system. From a young age the entrepreneurial spirit must be nurtured and guided, so a solid foundation is set. Afterwards, of course comes the financial sector and circumstances of the country. We must make sure start-ups and riskier ventures are helped both financially and regulatory, so that it is easier to attract foreign capital.”

Additionally, Interviewee #5 touches upon the importance of governmental influence in order to create supportive environment for innovation in Bulgaria: “To stimulate entrepreneurial innovation in Bulgaria, the government should provide consulting support and a certain amount from the state budget to encourage the development of such businesses. In my opinion, the sector that can influence entrepreneurial development the most is tourism. Due to the favorable conditions in Bulgaria, tourism in our country /heritage tourism, cultural tourism, congress tourism, winter tourism, mountain tourism, sea tourism, etc./ could attract lots of people all year round.”

It can be concluded that supporting innovation in Bulgaria is influenced by private and foreign funding, education which produces competent workforce and fair governmental policies as well as additional support from the government through subsidies for example.

4.1.4 Factors influencing entrepreneurial innovation

Entrepreneurial innovation is recognized as an essential element of innovation, productivity, innovation, competitiveness, and employment. In this way, entrepreneurship could be described as an individual's ability to put information and strategy into practice. Entrepreneurial innovation includes project management, project planning, the ability to take calculated risks, creativity, and invention to accomplish predetermined goals. Furthermore, entrepreneurship is recognized as an important factor in assuring the dynamic of a certain economy, as well as displaying how to get better results in new company formation and related sustainability.

Political decision-making in Bulgaria is crucial to the progress of entrepreneurship through building support systems, regulations, infrastructure, and networks. The results from the

expert interviews support the literature review regarding the factors that influence entrepreneurial innovation in Bulgaria. Additionally, the interviewees see firms and government as the most influential stakeholders responsible for entrepreneurial innovation activity:

Interviewee # 9: “Re-build legacy systems and processes from the ground up using western standard technologies and methods. Examples of such technologies are ERP and CRM systems. A lot of the country’s largest companies are still very bureaucratic and have archaic operating systems. Operationally, they can become a lot more efficient by investing in turnkey and low, or no-code enterprise solutions.”

Interviewee # 4: “There is a state funded growth accelerator and a coworking space in Sofia and there are numerous initiatives that are provided by the Bulgarian Development Bank (also funded by the State). Some of these programs and initiatives have not been easily accessible to many people, but we can definitely say that the current government is extremely involved in implementing these measures to their best.”

“Stability and opportunity are the two factors that are most important for the characterization of an environment as “good for innovation”. Stability means that investors are more prone of risk taking, which means investing in riskier and hence more innovative projects. Another factor that is extremely overlooked, when it comes to innovation, is that very often innovation is born out of the necessity of various kinds of resources (the lack of these resources). When you are forced to achieve something with less than required, you innovate and find a way to achieve it more effectively.” Interviewee #1 does not take the stakeholder approach like the other participants and defines stability and opportunity as the two most important factors influencing entrepreneurial innovation.

4.1.5 Implementation of entrepreneurial activity

Based on the expert interviews and the literature, the implementation of entrepreneurial activity has gained momentum in the recent years. Sofia, the capital of Bulgaria maintains one of the most robust start-up and

entrepreneurial ecosystems in Eastern and Central Europe. The European Investment Fund contributed to the ecosystem by supporting hubs and start-ups. This has resulted in a significant growth in the quantity of start-ups and investment activity in the area.

A network of angel investors began funding seed or early-stage ventures alongside the two funds. Incubators and accelerator programs empower first-time entrepreneurs with information and skill sets. The establishment and expansion of the Sofia VC ecosystem has aided more established start-ups and corporations in their growth stages.

However, tremendous entrepreneurial development cannot be ascribed primarily to the allocation of EU funding. Other factors driving the growth of the start-up ecosystem involve the historical development of Bulgaria's technological sector and the accumulation of knowledge and experience by Bulgarian SMEs and start-ups. Additionally, the easy access to international expertise; and enhanced knowledge and information exchange between firms and entrepreneurs.

According to interviewee #3, the process of implementation is still at an early stage: "...In the past 10 years, the country and the government have been ineffective in stimulating entrepreneurial development to the necessary extent. If the current government survives the current recession and financial crisis, it may be able to show positive results before the end of their mandate."

Similarly, participant #5 states that the process of implementation will be long but it will lead to beneficial outcomes for the economic stability and development of the country: "I think that the effects of entrepreneurial innovation will take a long time to matriculate, but hopefully, it will lead to the adoption of lean production, manufacturing and programming process automation, greater profitability for mature ventures, and sector-specific clusters which would in turn attract opportunities for adjacent ventures."

5 Findings and discussion

Through the use of an innovation theory within the framework of economic growth, this study provides an in-depth analysis of the impact that entrepreneurial innovation has on the economic development of Bulgaria. In order to arrive at a reasonable discussion on the matter, the elements that have been assessed are integrated, and their influences are investigated, in this sequence. Innovation brought about by entrepreneurial activity makes the economy of Bulgaria more appealing to both international and local investors. This, in turn, leads to increased levels of productivity and, as a result, the expansion of the economy. Therefore, the research questions of this study have been resolved by presenting evidence of the influence of entrepreneurial activity in Bulgaria and the implementation of innovation as well as communicating on the factors that stimulate and improve entrepreneurial innovation:

RQ1: Why is entrepreneurial innovation important for the economic development of Bulgaria?

RQ2: How can entrepreneurial innovation be stimulated in Bulgaria?

Coming from the literature review and the result from the expert interviews the study can conclude that entrepreneurial innovation could have a great impact on the economic development of Bulgaria as long as there is efficient governmental support which could instill funding and therefore productivity and improvement. According to the data from the expert interviews, there is some governmental support after the change of the leading party a few months ago, but in general there should be more excessive involvement. The government should begin with education because it is a crucial factor to the entrepreneurial activity in Bulgaria. There is no competent workforce in Bulgaria which results in lower productivity and employment as well as recruitment of foreign workforce.

As a young capitalistic economy and young democracy, Bulgaria is still a developing country, but this suggests that there are opportunities for development, growth, and adoption of new policies. The economic development of the country is still experiencing a transition from secondary

to tertiary sector economy. Therefore, it is crucial to implement and support innovation and entrepreneurship at this stage of development. A rise in net FDI and an immediate approach to deal with the current demographic challenge are the two most important drivers of economic growth and development. Investment in Bulgaria is being hampered by a lack of capital inflows, which is reminiscent of pre-2008 levels. FDI has been hindered since 2008 due to a combination of problems including corruption, an aging population, and a small domestic market. Determining factors in terms of demographics come into play next. As a result of variables such as a net positive outflow of human capital resources to more developed countries and a negative replacement rate, Bulgaria is one of the fastest-shrinking countries in the global economy. The government as well as established companies needs to grow through encouraging Bulgarians living abroad to return and by implementing pro-natalist measures at home.

Additionally, in order to create a better environment for entrepreneurial activity and innovation, there should be stability within the country and opportunities for entrepreneurs to develop their ideas further.

The two most crucial variables for characterizing an environment as suitable for innovation are stability and opportunity. Stability encourages investors to take greater risks, which leads to investments in riskier and thus more creative enterprises. Another issue that is frequently neglected when it comes to innovation is that it is frequently born out of a need for various types of resources because of a lack of those resources. Therefore, the results from the expert interviews suggest that entrepreneurial innovation necessitates a wide range of choices. The most significant characteristics are the freedom of choice, the flexibility to take chances, and the open-mindedness necessary for business. This means that no other variables prevent an individual entrepreneur from taking risks, that he or she can afford to take the risk in which his or her fundamental necessities are met, and that his or her education is adequate to understand the necessity and purpose of an entrepreneurial enterprise. Additional characteristics for a favorable entrepreneurial environment in Bulgaria discussed in the expert interviews are policies enacted by the government with the intention of fostering an increase in private, unsubsidized investments in venture capital; Immigration

regulations for employees with high levels of education or experience; policies of taxes that are advantageous for research and development and investment vehicles in venture capital.

On the other hand, the Bulgarian government presently provides some amount of official funding to start-ups and innovation facilities. In Sofia, there is a state-funded growth accelerator and a coworking space, as well as various projects offered by the Bulgarian Development Bank (also funded by the State). Some of these programs and efforts have not been widely available to many people, but we can certainly claim that the present administration is heavily active in executing these policies to the best of their abilities.

The current government is far superior to the previous one in terms of supporting innovation. A considerable funding has already been made in a computer science institutes, as well as measures targeted at bringing venture capital funds to the country.

In terms of factors influencing entrepreneurial innovation in Bulgaria, there are several different factors which are identified as most important and influential. Finance and education are two interconnected industries. Bulgaria has to spend extensively in its education system. The entrepreneurial attitude should be encouraged and led from an early age in order to provide a firm basis. The financial industry and the country's conditions are the next most important discussed by the interviewees. Start-ups and risk projects should receive financial and regulatory assistance, making it easier to attract international investments. Additionally, in Bulgaria there is a natural aptitude for computer science and information technology. Because of the excellent caliber of mathematics education, this is one of the beneficial consequences of the country's period under Soviet influence. Going future, the IT industry will most likely be the most inventive entrepreneurial sector.

Moreover, to foster entrepreneurial innovation in Bulgaria, the government should give advisory assistance as well as a portion of the public budget to encourage the growth of such enterprises. Tourism is also identified as a factor influencing entrepreneurial development. Because of the favorable

conditions in Bulgaria, historical tourism, cultural tourism, congress tourism, winter tourism, mountain tourism, sea tourism, etc. could influence entrepreneurial activity and create new opportunities.

In order to promote innovation in Bulgaria firms and government should adopt practices which stimulate entrepreneurial innovation. Companies could utilize their lobbying to contribute to the creation of an environment in which entrepreneurship is valued and sought for. Furthermore, some corporations on the Bulgarian market have already established innovation laboratories of some kind, where they identify, assist, and invest in start-ups linked to their line of business. Firms can also rebuild historical systems and processes from the ground up utilizing Western technology and approaches. ERP and CRM systems are examples of such technology. Many of the country's top corporations are still very bureaucratic and use antiquated operating systems. They may become much more efficient operationally by investing in turnkey and low, or no-code enterprise solutions. More specifically, companies should concentrate on underdeveloped niches with high potential and research similar niche markets in other nations. They should analyze other established company models and add their innovations. Companies should have a variety of ideas and be willing to debate them with a wide range of people, from interns to founding members. Once the firms have determined which business models they will use, how they will create specific projects, and what the innovations will look like, they will need to work on their proposals to make them interesting to investors and the broader public.

In other words, firms should give instances of other successful international developments. Furthermore, create more work prospects than the present state and private sector choices. Finally, marketing efforts supporting the notion of the invention in question and telling the public that the innovation would bring about beneficial changes and have an influence on the country's life and state.

Bulgaria is an attractive country for FDI because it is a developing country with several investment options. The country provides a solid balance of reasons why it is an excellent place to invest. First and foremost, owing to its geographical location, Bulgaria gives easy access to both West and East

Europe. In addition, the country has been a member of the European Union since 2007, which assures rigorous adherence to the law and the battle against corruption. The interviewees also emphasize that the Bulgarian market is currently underserved and has a lot of potential. Last but not least, Bulgaria offers one of the most competitive labor prices in Europe, as well as a favorable tax structure.

Furthermore, from a taxation standpoint, Bulgaria offers relatively competitive tax rates, making the country a desirable area for investors to build their businesses. Other advantageous characteristics include the availability of educated professionals with lower salaries (in comparison to Western Europe) and the country's well-established excellent connections - both logistic and business wise. However, there are arguments which suggest that FDI in Bulgaria is not as developed as it could be. From an insider point of view Bulgaria could be favorable for FDI, however, from a Western standpoint the country's environment could be less preferred for FDI. International investors are hesitant to invest in Bulgarian entrepreneurial activity because of corruption and stagnant bureaucratic processes. This is also a barrier for local investors. The challenges should be addressed by the government.

The private domestic investment industry has grown rapidly during the previous decade. More and more Bulgarian investment vehicles are being formed in collaboration with private investors. However, much more time will be required before we can declare that the business is primarily operated by Bulgarian investment firms. Because the Bulgarian economy is so young, the domestic investment industry is established and experienced. What we need to focus on is attracting more foreign investment and expanding the international investment sector centered on Bulgaria.

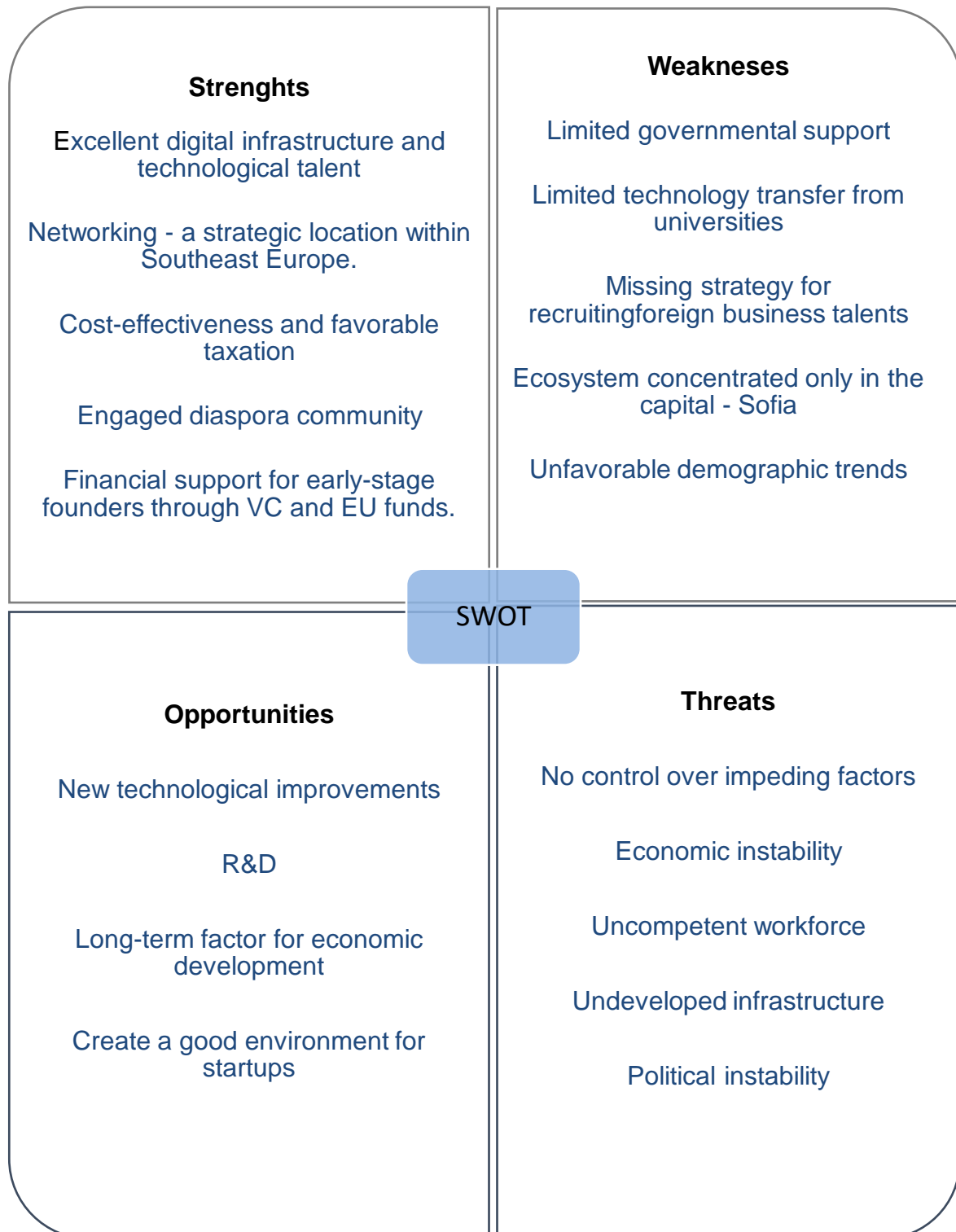
Even though the tendencies show development of PDI sector, it is not developed to the level that it should be, and the problem begins with culture. Despite the fact that the country has only been a market economy for less than 50 years, there is no investing culture among the middle and upper classes. There is minimal investment in domestic or global stock capital markets, and entrepreneurs and high-net-worth people tend to take on too much idiosyncratic risk by exclusively reinvesting in their own enterprises or

real estate. This has resulted in a new real estate bubble, which will inevitably lead to a severe market downturn in the coming years, wiping away a major percentage of these people's savings in the form of equity value. There has been relatively little activity in the institutional investment sectors of PE and VC since 2008.

In terms of start-up ecosystem and the capability of the country to develop entrepreneurial innovation the findings are not unanimous. Bulgaria is an excellent location for a startup if your target markets are international and you're launching a digitally native enterprise. Because of the low labor and low-cost environment, well-funded businesses may make minor and non-critical mistakes while improving their goods and business strategies. The effects of entrepreneurial innovation will take time to manifest, but hopefully it will result in the adoption of lean production, manufacturing, and programming process automation, increased profitability for mature ventures, and sector-specific clusters that will attract opportunities for adjacent ventures. As an example, the Bulgarian deep tech start-up Dronamics managed to build stable basis in Bulgaria and develop their idea and prototype to attract domestic and foreign investment. The start-up was able to gain funding, resources and connections in Bulgaria that had a crucial impact on the success of the venture. However, at this point the Bulgarian start-up is looking to grow internationally because of the opportunities that are non-existent in Bulgaria.

Additionally, sustainable development is of great importance when discussing the influence of entrepreneurial innovation. The establishment and development of innovative enterprises is critical for structural change in the direction of sustainable development. According to this research, nations with more innovative SMEs connected with entrepreneurship perform better in the rankings for sustainable development, whereas countries with poorer performance for entrepreneurial innovation have lower scores for sustainable development. To address both current and future difficulties, sustainable development necessitates fostering innovative efforts and activities in corporate sectors that function as change agents in the new development paradigm.

5.1 SWOT analysis of entrepreneurial innovation in Bulgaria



Based on the data research a SWOT analysis could be developed regarding the influence of entrepreneurial innovation on the economic development of Bulgaria.

The conclusion on the strengths is influenced by a number of variables. First, industrial communication promotes mutual benefit between academics and industry, as well as networking between the private and the public sectors. Following, high-tech innovation has the ability to accelerate economic diversification and modernization. Third, the government is an active stakeholder in innovative ventures, resulting in legal status as a non-profit organization and assisting in the formation of the suitable ecosystem for initiatives to start and prosper. All of those strengths promote economic development through entrepreneurial innovation, resulting in a high level of employment (Ratten,2021) (Primova, 2019).

Three key elements might be utilized to identify opportunities. Firstly, R&D as well as technical innovation lead to expertise, which initiates with an idea from an innovation firm and advance to innovative items, and then to commercialization or technology sharing from nation to country or organization to organization. Additionally, a long-term deliberate economic development tool for the town, aiding in economic diversification and tax revenue growth. Finally, the entrepreneurial environment could support entrepreneurs as an important determinant in the process of innovation and provide an appropriate environment for the development of start-ups (Primova, 2019).

The threats to entrepreneurial innovation are the most difficult to define. This is owing to the fact that innovation systems are a possible instrument in nations' plans from several perspectives and incorporate all the variables that affect the creation and deployment of innovations including economic, social, political, and organizational aspects. Economic instability is one of the most important factors because it influences the entrepreneurial activity greatly. Additionally, the political instability of the country also plays a crucial role since the policies are preventing entrepreneurs from developing. Also, policies are making the country unfavorable foreign funding which results in lower productivity. Other threats include incompetent workforce which influences the ability of companies and entrepreneurial environment to develop. Moreover, undeveloped infrastructure in Bulgaria also causes lack of opportunities and further growth and development of innovation (Primova, 2019).

6 Conclusion

The data analysis performed during this research leads to the conclusion that the impact of entrepreneurial innovation is crucial for Bulgaria's economic growth. The country's capacity for adopting and developing entrepreneurial innovation is quickly expanding. However, appropriate policies and efforts to promote and develop its constituent parts are required to generate the necessary stability for globalisation and development, and therefore a positive impact on the economy. Long-standing attitudes and defects accompany numerous areas of the Bulgarian business environment, which has a profound and usually dramatic impact on the viewpoints of the various stakeholders. However, positive changes in the local entrepreneurial environment, notably the Bulgarian start-up ecosystem, which is becoming a more active and open community with a strong emphasis on innovation in ICT-related circles, should be taken into account (Capital, 2021). A dynamic consolidation of experience, evolving attitudes, and shifting expectations is now taking place.

Favorable tax policies and regulations aimed at innovative funding mechanisms, especially for entrepreneurial innovation as a whole, and additionally vibrant networks of the entrepreneurial community, and adequate infrastructure are determining factors of the constituents of the entrepreneurial ecosystems that have a beneficial impact on entrepreneurship (Hess, 2020). Multiple administrative and institutional instruments that are currently undeveloped could promote entrepreneurship and risk-taking.

It is critical to foster the concept of growing entrepreneurship and developing the educational foundation and value for society through consistent government policies and activities. Financial tools and environment and economic awareness should be prioritized. Some initiatives that should be incorporated to help mitigate administrative restriction to entrepreneurial activity include the appropriate implementation of digital administration, the reduction of general levels of corruption, a social tax for start-ups, as well as a wider popularization of access to funding instruments and advantages (Hess, 2020). Many more significant efforts and government policies are necessary for Bulgarian firms to globalise and overcome the difficulties of

the small market in terms of human capital, R&D development and competitiveness. However, cultural reform is critical to the long-term prosperity of Bulgaria's whole economic sector.

Based on the data analysis, a critical conclusion was formed, answering the research questions of the study: ***Why is entrepreneurial innovation important for the economic development of Bulgaria? and How can entrepreneurial innovation be stimulated in Bulgaria?***

The research questions were resolved by using the evidence from the literature review and the detailed analysis of the expert interviews. The study concludes that entrepreneurial innovation is important for the economic development of Bulgaria because it makes the country favorable for private and foreign investment which results in higher productivity, more competent and educated workforce and implementation of foreign innovative practices which results in more stable and growing economy and economic activity. Entrepreneurial innovation induces entrepreneurial activity and development in start-up ecosystem which also benefits the economic situation in the country. Additionally, entrepreneurial innovation can be stimulated through fair policies and funding for entrepreneurial activity by the government as well as investment from NGOs and VC investment. Additionally, the adoption of innovative practices by established and developing ventures is necessary for the stimulation of entrepreneurial innovation in Bulgaria.

6.1 Recommendations

6.1.1 Government

Private enterprises could underinvest in new technology development from a social standpoint since they are unable to collect all of the advantages that emerge from such expenditures. This challenge is aggravated in basic research since its product is typically a gain in scientific or technological knowledge that may then be exploited in applied research and commercial development by a diverse and often unforeseen spectrum of enterprises. Furthermore, new technological advancements are notoriously unreliable in terms of outcome and use. As a consequence, to mitigate underinvestment, direct government financing is essential for this category of R&D. Additionally, government support for technology development could benefit

businesses resulting in societal benefits. (Georgiev, 2022). The problem of indivisibility arises when economies of scale requirements prevent small firms from carrying out particular tasks effectively and profitably. Certain industries, for example, may be too fragmented and company sizes too tiny to undertake a significant research and product development effort. Furthermore, big oligopolistic enterprises may prioritize short-term enhancements to current items over risky and market-disturbing long-term innovations. Individual consumers confront a similar issue in that they frequently lack the knowledge to make good choices or the bargaining power to be effective bargainers (Capital, 2021) (Farinha et al., 2020). In many cases, the enormous economies of scale imply that federal government funding is required for some forms of R&D, or that coordinated industrial, or consumer activities are required to achieve the minimum efficient size. The "public goods" dilemma refers to the reality that certain things provide advantages that are difficult or impossible to deny to a person who refuses to pay for them. For example, even if they do not want it, all residents of the United States are entitled to the full advantages of national defense (Georgiev, 2022). As a result, the choice on how much to supply to individual units for public goods cannot be determined by the market but must be made by the political system. In contrast, if the government assigns the necessary costs and rewards to the appropriate decision-making units, the market may produce the appropriate results. As a result, it is reasonable for the government to actively finance R&D for these kinds of commodities (Georgiev, 2022) (Farinha et al., 2020).

The Bulgarian government can also improve another direct and purposeful function. This is partly a control job. Technological advancements are usually accompanied by unfavorable social or economic effects, such as pollution, health and safety risks, and workforce displacement. In such circumstances, the government, as guardian of the public interest, must assume a direct role in mitigating such unfavorable impacts by planning, restrictions, regulations, or transfer payments. Because the free market has not removed or cannot be anticipated to eradicate these unwanted impacts, or because efficient market remedies are not desired social policy, the government's participation is required (Capital, 2021).

6.1.2 Firms

Businesses in Bulgaria should embrace strategies that encourage entrepreneurial innovation in order to foster a culture of innovation in the country. Entrepreneurial initiatives could help contribute to the development of a culture in which entrepreneurial endeavors are encouraged and recognized as having value. In addition, several companies operating on the Bulgarian market have already set up innovation labs of some form. These facilities are places where the companies search for, help, and invest in new businesses that are related to their area of work (Stoyanov, 2022). Companies could also rebuild old systems and processes from the ground up with Western technology and methods of operation. This kind of technology includes, for example, ERP and CRM systems (Stoyanov, 2022). The majority of the most successful companies in the nation continue to adhere to archaic management practices and computer operating systems. Investing in corporate solutions that are turnkey, low-code, or no-code might help them become much more efficient in their operations. To be more precise, businesses should focus their attention on untapped areas that have a high potential upside and do research on comparable niche markets in other countries. They need to look at the examples of other successful companies and incorporate their own ideas (Stoyanov, 2022). Companies must be open to discussing their ideas with a diverse group of individuals, ranging from new interns to original members of the company's founding group. The companies will need to work on their plans in order to make them intrigue to investors and the general public after they have chosen which business models they will employ, how they will construct particular projects, and what the innovations will look like (Stoyanov, 2022).

Bulgarian firms need to provide examples of past foreign initiatives that have been successful. In addition, more job opportunities should be created than are now available via the state or the private sector. Last but not least, marketing activities promoting the concept of the proposed invention and informing the general public that the innovation would bring about favorable changes and have an impact on the lives and status of the nation (The Economist, 2021).

6.1.3 NGOs

Non-governmental organizations in Bulgaria encounter a number of obstacles when implementing entrepreneurial innovation. One of the most crucial aspects in overcoming these challenges is identifying the numerous issues that an organization is experiencing, as well as the areas where improvements should be made. After recognizing these critical areas, organizations may devise a strategy to improve and overcome the challenges they face.

Despite being domestically structured in manner that should foster innovation, the research findings appear to provide some indication that NGOs do not perform as well in terms of innovation than their public image indicates. A closer evaluation of both internal and external variables that are affecting NGOs' operations and that appear to be limiting their innovative capacity is recommended by the study's findings (Luxmore & Hull, 2011).

As many NGOs have gotten more engaged in vast innovation technologies, they have been forced to adapt their traditional patterns of operation and extend and bureaucratize their structure. A specific source of worry is the seeming mismatch between successful performance in the operational efficiency dimension and efficient implementation in the innovation component of NGO work. The sort of large-scale service providing practiced by the majority of the NGOs in our research necessitated standardized delivery methods, organizations capable of securing significant amounts of external money, and procedures for quick and complicated decision-making (Luxmore & Hull, 2011).

Effective community-level innovation, on the other hand, is based on qualities such as proximity to the disadvantaged, organizational independence, participatory frameworks, and a commitment to devote significant time to debate and learning. It appears that combining these features within the same institution is becoming increasingly challenging. Instead, a shift in leadership structure is possible. This trend is caused in part by NGOs' shifting comparative advantages (Andonova et al., 2019).

6.2 Limitations of Study

When discussing the limitations of this study, the internal and external validity of the research should be addressed. The internal validity of the study is compromised by the combination of both qualitative and quantitative data analysis. There is a possibility that the qualitative data collected by expert interviews suggests different conclusion and answer to the research question of the study form the quantitative data discussed in the literature review of the study. In the case of a difference in the observations, it should be addressed and analysed. Moreover, another internal validity limitation of the study could emerge when collecting qualitative data. The opinion of the experts, participating in the study is based on experience and knowledge, however, even if someone has the full knowledge, there are factors that cannot be predicted and therefore a more general picture can be formed but the study will not be able to predict with certainty what would be the consequences of supporting and implementing entrepreneurial innovation within a country.

The limitations of the external validity of the study suggest that this specific study could be used to analyse other similar developing economies such as the Bulgarian, however, all countries have different financial systems, governmental system, resources, culture, etc. which suggests that this study could be irrelevant to other cases.

6.3 Future research and application

Future research is recommended. Additional research to this study could examine the influence of entrepreneurial innovation in Europe as a whole in order to compare different countries and examine the factors that influence them. Moreover, another approach could be used to research other countries with similar economical level of development, for example other Eastern countries or Balkan countries. Additionally, this research could be used to compare to other less developed countries in other to depict the differences and what approach could be used to develop the economy of that certain developed country; or what this research could be used to compare to other more developed economies and form a conclusion on what practices could be implemented for future growth. Finally, an approach which compares

cities in Bulgaria could be applied in order to see how cities perform and what resources are most valuable to the economy of the country.

For further research and application of this study, a multi stakeholder approach could be implemented and used to examine the factors that influence economic growth in the context of entrepreneurial innovation. Each stakeholder could be analyzed alone in order to gain deeper understanding of their role and importance as well as their actions and how can they further support and instill entrepreneurial innovation.

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8 Appendices

8.1 Appendix I

Participants' demographics

Participant #1

Radomir Badyokov

<i>Age</i>	24
<i>Work experience</i>	Founder of an investment company
<i>Education</i>	BSc ESCP

Participant #2

Yordan Iliev

<i>Age</i>	47
<i>Work experience</i>	CEO of an automotive company in Bulgaria
<i>Education</i>	MSc Economics - Bulgaria

Participant #3

Vesela Kavroshilova

<i>Age</i>	25
<i>Work experience</i>	Works in a start-up in Munich
<i>Education</i>	BSc in US BSc in Frankfurt

Participant #4

Valya Semkova

<i>Age</i>	48
<i>Work experience</i>	CEO of sustainable farming company
<i>Education</i>	MSc Business

Participant #5

Filip Prokopiev

<i>Age</i>	25
<i>Work experience</i>	VC professional in New York
<i>Education</i>	BSc Babson college

Participant #6

Ivaylo Slavov

<i>Age</i>	51
<i>Work experience</i>	CEO of the biggest IT company in Bulgaria
<i>Education</i>	BSc London MSc Frankfurt

Participant #7

Galina Tzvetanova

<i>Age</i>	24
<i>Work experience</i>	Founder of a sustainable brand
<i>Education</i>	BSc King's College London

Participant #8

Marko Ivaylov

<i>Age</i>	33
<i>Work experience</i>	Founder of a start-up based in Bulgaria
<i>Education</i>	MSc Sustainability Bulgaria

Participant #9

Georgi Nikolov

<i>Age</i>	28
<i>Work experience</i>	Employee in the IT sector
<i>Education</i>	BSc King's College London

Participant #10

Rada Kopreva

<i>Age</i>	27
<i>Work experience</i>	
<i>Education</i>	BSc MODUL University Vienna MSc UCL London

8.2 Appendix II

Questions

The questions developed for the expert interviews are divided in five main categories which will improve the process of conducting the interviews as well as data collection and analysis. The categories are: Economic development of Bulgaria; Entrepreneurial innovation in Bulgaria; Supporting Innovation; Factors influencing entrepreneurial innovation; Implementation of entrepreneurial activity.

Table 13: Expert interview questions

<i>Question</i>	Source
<i>Economic development of Bulgaria</i>	
At what stage of development do You evaluate the country to be in?	Created by the author
What is necessary for the development of the economy of the country?	Created by the author
<i>Entrepreneurial innovation in Bulgaria</i>	
What makes for a good environment for innovation?	Created by the author
When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?	Created by the author
<i>Supporting Innovation in Bulgaria</i>	
How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?	Created by the author
What can companies do to promote innovation in the country?	Created by the author
<i>Factors influencing entrepreneurial innovation in Bulgaria</i>	
Is there governmental support in Bulgaria for innovations and start-ups?	Created by the author
In Your opinion, is Bulgaria a favorable country for foreign direct investment?	Created by the author
Is Bulgaria's private domestic investment sector developed?	Created by the author
<i>Implementation of entrepreneurial activity in Bulgaria</i>	

What is Your opinion regarding the start-up environment in Bulgaria?	Created by the author
What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?	Created by the author
Is the country capable of stimulating the development of entrepreneurial innovation?	Created by the author

The questions in the first category, Economic Development of Bulgaria, are intended to offer the required introduction and context to the issue of entrepreneurial innovation in Bulgaria. According to the interviewers, the responses to the questions should provide a clear image of the country's present economic status, which will also provide context for some of the following questions and answers. The questionnaire's second area is Entrepreneurial Innovation in Bulgaria, which focuses on what constitutes a favorable climate for entrepreneurship and what variables impact it. The fundamental components for a healthy and stable entrepreneurial environment will be indicated as a result of the replies to those questions. Furthermore, what is required for a more sophisticated and steady entrepreneurial innovation activity in Bulgaria will be highlighted. As a result, it is possible to assess what is present and what is lacking and could be addressed. The following set of questions focuses on fostering innovation in Bulgaria. Its goal is to debate how to promote the entrepreneurial climate in Bulgaria. It also addresses the elements that drive entrepreneurial innovation and how important they are. It contains additional specific questions like "What can corporations do to foster innovation in the country?" to acquire a better picture of the sector's influence in the country. The fourth component of the questionnaire, Factors Influencing Entrepreneurial Innovation in Bulgaria, addresses the stakeholders who impact entrepreneurial activity and innovation implementation in the nation. By responding to the questions, the respondents will express their views on governmental action as well as the degree of FDI and PDI that represents the NGOs and enterprises. This is significant for the study's aims since it illustrates the stakeholders' roles and relevance, as well as their impact and what they should do to foster

entrepreneurial innovation. The last portion focuses on the Implementation of Entrepreneurial Activity in Bulgaria, with the goal of understanding the respondents' expert perspective on the start-up environment in Bulgaria and the probable repercussions of Bulgaria's entrepreneurial activity stimulation. Furthermore, this part should respond if Bulgaria is capable of fostering the growth of entrepreneurial innovation. Because the majority of the sets of questions are a continuation of the prior part, the answers are only expected to operate in the context of the previous responses.

8.3 Appendix III

Interviews

Participant #1

At what stage of development do You evaluate the country to be in?

A: Bulgaria is a young democracy and a young capitalistic economy. Only 3 decades ago the ideology of government for both politics and economics was based on the notions of communism. Private property was something reserved for a selected few and economic prowess / private interests were not something stimulated or encouraged by society or the culture. This means that we are still inexperienced when dealing with economic development or private enterprises.

On a European scale, Bulgaria is still a developing economy, which is trailing when compared to other EU members on almost all KPIs. This can be viewed as something negative, but in my opinion, it puts the country in a leveraged position within the EU.

Bulgaria is still developing, but this means that there are opportunities for development in virtually every field. This means that the country can adopt technological advancements easier and quicker, and it also makes it a good environment for investors and projects.

What is necessary for the development of the economy of the country?

A: At its current stage the one thing that is most necessary for the country to be able to economically develop and seize the opportunities in front of it is political and judicial stability. The last period was turbulent politically and this translates to uncertainty in the eyes of investors and projects of a more significant magnitude.

What makes for a good environment for innovation?

A: Stability and opportunity are the two factors that are most important for the characterization of an environment as “good for innovation”. Stability means that investors are more prone of risk taking, which means investing in riskier and hence more innovative projects.

Another factor that is extremely overlooked, when it comes to innovation, is that very often innovation is born out of the necessity of various kinds of resources (the lack of these resources). When you are forced to achieve something with less than required, you innovate and find a way to achieve it more effectively. This means that for developing markets like Bulgaria, innovation is essential.

When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?

A: Entrepreneurial innovation requires freedom of all sorts. For me the most important factors are freedom of choice, freedom to take risks and the open mindedness required for entrepreneurship. This means that any individual entrepreneur is not tied back from taking risks by other factors, is able to afford this risk (his/her basic needs are somewhat satisfied) and his education is sufficient enough to realise the necessity and purpose of an entrepreneurial venture.

How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?

A: Two sectors that intertwine, are finance and education. Like discussed in the previous question - Bulgaria must heavily invest in its education system. From a young age the entrepreneurial spirit must be nurtured and guided, so a solid foundation is set.

Afterwards, of course comes the financial sector and circumstances of the country. We must make sure start-ups and riskier ventures are helped both financially and regulatory, so that it is easier to attract foreign capital.

What can companies do to promote innovation in the country?

A: Companies can use their lobbies, so that they help create an environment where entrepreneurship is appreciated and sought after. In addition, there are already several companies on the Bulgarian market that have set up innovation labs of some sort, where they find, guide, and invest in start-ups related to their field of business.

Is there governmental support in Bulgaria for innovations and start-ups?

A: Currently there is some level of governmental support that is provided by the Bulgarian government to start-ups and innovation labs. There is a state funded growth accelerator and a coworking space in Sofia and there are numerous initiatives that are provided by the Bulgarian Development Bank (also funded by the State). Some of these programs and initiatives have not been easily accessible to many people, but we can definitely say that the current government is extremely involved in implementing these measures to their best.

In Your opinion, is Bulgaria a favorable country for foreign direct investment?

A: In my opinion Bulgaria is a great country for foreign direct investment. We live in a relatively developing country and opportunities for investment are plenty. In addition to that, from a taxation point of view – Bulgaria has very competitive tax rates and this makes the country a good place for investors to establish their companies here.

Other beneficial factors are the accessibility to educated professionals with below market remuneration (compared to western Europe) and the established good connection of the country (both logistic and business wise).

Is Bulgaria's private domestic investment sector developed?

A: The Bulgarian domestic investment sector is developed and experienced, when because the economy is extremely young. Where we need to focus on is to attract more foreign investment and further develop the international investment sector that is focused on Bulgaria.

What is Your opinion regarding the start-up environment in Bulgaria?

A: no answer

What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?

A: no answer

Is the country capable of stimulating the development of entrepreneurial innovation?

A: no answer

Participant #2

At what stage of development do You evaluate the country to be in?

A: Bulgaria is in a very interesting state at the moment. At the same time, we are still recovering from the financial crisis and while we are on the verge of new crisis, the economy is much more developed and stable than a few years ago. Compared to other European countries, Bulgaria is still developing, but compared to our previous state Bulgaria experienced significant improvement. Let's hope that the new government is capable of further improving the current state and working towards improved quality of life and opportunities for Bulgarians.

What is necessary for the development of the economy of the country?

A: The most important thing is to stabilize the political system. The new government has to make a lot of changes and gain trust in the society, they started to do so, however, with the pandemic and the war in Ukraine, I am afraid we are facing a financial crisis form which, it will be difficult to recover. I would say that despite the change of the government, the Bulgarian society is still incapable of trusting and supporting the political situation.

What makes for a good environment for innovation?

A: A good environment for innovation should have adequate policies and laws, should have stable financial system, should have access to quality education and finally it should have competent and inspired workforce.

When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?

A: Fair policies, competent workforce, and investment. I would also add favorable infrastructure and opportunities for entrepreneurs.

How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?

A: Entrepreneurial innovation should be firstly adopted by established companies. Once, those practices are evident in Bulgaria a change can start and therefore the government can be forced to adapt and create fair policies and support the entrepreneurial development of the country with it.

What can companies do to promote innovation in the country?

A: Educated and competent workforce. Companies should always implement new technologies and advancements which stimulate and improve the performance of the workforce. Another very important thing that companies could do is to adopt foreign practices. The example of someone else's experience is always very beneficial no matter if it is positive or negative.

Is there governmental support in Bulgaria for innovations and start-ups?

A: I would say, yes, even though there are policies that should be changed. The bureaucracy in the country is very underdeveloped and it creates a lot of obstacles for emerging enterprises and not only.

In Your opinion, is Bulgaria a favorable country for foreign direct investment?

A: It is becoming in recent years. Due to favorable taxation and young and ambitious entrepreneurs, I believe that FDI is yet to improve in the country.

Is Bulgaria's private domestic investment sector developed?

A: It depend, compared to the level of innovation in the country it is, but if you compare it to the US for example then it is underdeveloped. And of course, it is one circle – more innovation attracts more funding, and more funding induces innovation.

What is Your opinion regarding the start-up environment in Bulgaria?

A: I am very pleased to say that it is growing rapidly, and Bulgarian entrepreneurs are hungry for working and developing their ideas.

What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?

A: For sure the consequences will be beneficial to the business environment, to the economic growth of the country and to the quality of life of the Bulgarians.

Is the country capable of stimulating the development of entrepreneurial innovation?

A: I would say that the government is not capable because currently it is facing a lot of problems which should be solved before the government involves with the innovation activity in the country. Unfortunately, the government was never actively involved in the development of entrepreneurial innovation so it will be hard for the

new government to go through the transition, and it will take time. On the other hand, VCs and angel investors are more active than ever and I believe that they do stimulate the development of entrepreneurial innovation greatly.

Participant #3

At what stage of development do You evaluate the country to be in?

A: Stepping on W.W. Rostow's definition of the five steps of development of a country or the so-called Stages of Economic Growth, I would suggest that Bulgaria is now in its Drive to Maturity stage. According to the common understanding, this step usually takes quite a long period of time, which is of course different for each and every country. During the Drive to Maturity stage the national economy grows and diversifies and the standard of living of the people is rising.

I would even let myself suggest that there are a few better-developed regions in Bulgaria (e.g., Sofia, Plovdiv, Burgas), where people's standard is way higher due to internal and external investments. The development in these regions slowly but steadily is already taking on its way to enter the last fifth stage - Age of High Mass Consumption.

What is necessary for the development of the economy of the country?

A: Stepping on the already said above I would say that it is investments in Bulgarian economy and mostly in the industry the country is known for such as technology sector for example, that can change the ecosystem in the country and let economy develop more dynamic. As said above we already see the results in the more developed regions in the country where most of the hubs of international organizations are mainly located. Apart of investments of outside companies we see increasing number of own Bulgarian start-ups which also have a role in the development of the Bulgarian economy by opening new jobs on one hand and strengthening the position of Bulgaria on the international business stage on the other.

What makes for a good environment for innovation?

A: I would say there are two main prerequisites needed for creating a good environment for innovation in any country. First of all, there should be a strong educational system that creates and promotes a culture of competitiveness and knowledge development. To encourage innovation every educational organization should focus on accomplishing high results and train people to develop more skills that would be needed in their professional path.

Second, I think the state needs to develop a long-term policy and a program to support innovation. I believe that given a strong team of experts with a proven track record and knowledge on the topic building a program would encourage innovation development in the country. And last but not least an annual budget focused on innovation development is a must if Bulgaria wants to position itself on the international innovation scene.

When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?

A: Speaking as a non-professional, I would again suggest first better education, especially focused on entrepreneurship programs that will have a great impact and will stimulate young people to step up and realize their ideas. Second, I believe young entrepreneurs will be way more ready to take the risk and to succeed if there is a national program that both offers training and grants for at least some of the ideas. We all know it's not easy to start a business, especially in terms of finance support, so I really believe that the state can have an active role and why not gain income in the future.

How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?

A: Undoubtedly, I believe it is the Technology sector that gives the most opportunities to people to develop and realize their ideas. This is also due to the fact that in ICT the companies are not limited to any market, but they can create a competitive product and sale it globally.

What can companies do to promote innovation in the country?

A: My experience in the technology sector for the last 10 years thought me that the Tech companies should and must be proactive and support education in Bulgaria. Fortunately, I myself have been part of such projects but I strongly believe that a long-term joint strategy between Education, Business and the State is needed. I am sure that such a strategy will result in hiring much better prepared and highly skilled young professionals that are adequate for the market's needs.

Is there governmental support in Bulgaria for innovations and start-ups?

A: To be sure I have not heard of any.

In Your opinion, is Bulgaria a favorable country for foreign direct investment?

A: Yes, I believe so. We've seen a lot of foreign companies opening their locations and hubs in Bulgaria and it's not by accident. I think the country offers good mix of reasons why the place is good for investments. First of all, due to its location Bulgaria provides direct access to both West and East Europe. Also, the country has been part of the European Union for 2007 which guarantees strict following of the law and fight against corruption. We should also mention the fact that the market in Bulgarian is still not well penetrated and offers high potential. And of course, last but not least, the Bulgaria has one of the most competitive costs of labour combined with a favourable tax regime in Europe.

Is Bulgaria's private domestic investment sector developed?

A: I would say in the last 10 years we see a dynamic development of the private domestic investment sector. There are more and more Bulgarian investment funds raising in combination with private investors. Yet there will be much more time needed until we can say it is mainly Bulgarian investment companies that run the business.

What is Your opinion regarding the start-up environment in Bulgaria?

A: no answer

What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?

A: no answer

Is the country capable of stimulating the development of entrepreneurial innovation?

A: no answer

Participant #4

At what stage of development do You evaluate the country to be in?

A: Economically, Bulgaria is at a developing stage, as data suggests growth of more than 530% between 2000 and 2022 when looking at GDP. However, compared to other European countries, Bulgaria is not among the top developed economically.

What is necessary for the development of the economy of the country?

A: One of the main issues in the country is corruption, which vastly limits economic growth by discouraging investment and making the public and private sectors less functional.

Inefficient public services, high levels of bureaucracy and bad judicial system are other issues to be looked at in order to boost the economic development of the country.

What makes for a good environment for innovation?

A: A good environment is firstly made of availability of resources and also availability of space to be innovative and boost one's creativity.

When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?

A: An important factor to be considered is network, the access to relationships and being visible, as all of those are essential regarding investor access and also finding clients. Accelerator programs are also a good path to seek as well as joining events that are of one's interest.

The third one would be community and logistics support.

How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?

A: In my opinion, entrepreneurial innovation can be stimulated by creating more spaces where people can meet and exchange ideas. Another stimulation can be educating people about entrepreneurship and innovation and making them think in that direction. The sector that would influence the entrepreneurial activity in my opinion is IT, as in this digital era everyone is connected online, and information is quickly shared and accessible.

What can companies do to promote innovation in the country?

A: Provide education for their employees and boost creativity with various techniques as seminars, tasks, and other types of innovative activities.

Is there governmental support in Bulgaria for innovations and start-ups?

A: Yes, there are various organizations like America for Bulgaria, Bulgarian Small and Medium Enterprises Promotion Agency and Bulgarian Chamber of Commerce and Industry. However, in my opinion they are not very popular and accessible, compared to start-up organizations in other European countries.

In Your opinion, is Bulgaria a favorable country for foreign direct investment?

A: Despite the favorable tax system, Bulgaria is not among the preferred countries when it comes to FDI. This is mainly due to the corrupt government system, where government officials accept foreign investors as troublemakers. Another issue is the low labor productivity in the country.

Is Bulgaria's private domestic investment sector developed?

A: In my opinion, the private domestic investment sector is developed, as it represents a bigger share compared to the public sector. The private sector also makes up a large share of the country's GDP.

What is Your opinion regarding the start-up environment in Bulgaria?

A: I would say the start-up environment is not as developed as in other countries in the EU. There are not plenty of organizations promoting support and acceleration programs. It is also hard to find spaces where you can communicate with other start-up founders and share ideas. There is definitely room for development.

What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?

A: The first consequence I can think of is a better developed economy. Higher productivity rates are another aspect, which will also help in attracting FDI. This in turn will also boost the development of the economy.

Is the country capable of stimulating the development of entrepreneurial innovation?

A: Yes, the country is capable. Maybe the first step to focus on is education, as a large share of the population still does not recognize the benefits of entrepreneurial innovation.

Participant #5

At what stage of development do You evaluate the country to be in?

A: Having previously been a socialist country under central economic planning, we are still relatively underdeveloped compared to regional and, and Western- European peers. I would say that we are still currently transitioning from a secondary, to a tertiary sector economy.

What is necessary for the development of the economy of the country?

A: In my opinion, there are two factors that would drive economic growth and development: An increase in net FDI, and an immediate strategy aimed at addressing the current demographic crisis. Bulgaria is still at pre-2008 levels of net capital inflows, which is hindering the investment environment significantly. This is not just specific to Bulgaria, regional peers such as Romania have the same issue.

Corruption, poor demographics, and a naturally constrained internal market size are the key factors that have prevented a recovery in FDI post-2008, in my opinion.

The second key factor has to do with demographics. Bulgaria is one of the fastest shrinking countries in the world, due to factors such as a net positive outflow of human capital resources to more developed nations, and a negative replacement rate. The government needs to enact policies aimed at attracting back Bulgarian citizens overseas, along with pro-natalist policies internally, in order to aim to increase the birth rate.

What makes for a good environment for innovation?

A: Highly skilled human capital, rule of law, favorable regulatory and taxation environments.

When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?

A: Government policies aimed at increasing private (non-subsidized) investments into venture capital;

Immigration policies for highly skilled workers;

Favourable taxation policies for R&D and venture capital investment vehicles.

How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?

A: We are naturally strong in computer science and IT. This is one of the positive hangovers of our time under the Soviet sphere of influence, due to the high standard of mathematical education. The IT sector will likely be the most innovative entrepreneurial sector going forward.

What can companies do to promote innovation in the country?

A: Re-build legacy systems and processes from the ground up using western standard technologies and methods. Examples of such technologies are ERP and CRM systems. A lot of the country's largest companies are still very bureaucratic and have archaic operating systems. Operationally, they can become a lot more efficient by investing in turnkey and low, or no-code enterprise solutions.

Is there governmental support in Bulgaria for innovations and start-ups?

A: Yes, I would say that the current government is doing a much better job than the old one. There has already been a significant investment into a computer science institute, and strategies aimed at attracting venture capital funds to the country.

In Your opinion, is Bulgaria a favorable country for foreign direct investment?

A: From an insider's perspective – yes. From a western perspective – no, and I understand why foreign investors are reluctant to deploy capital into Bulgarian business, with the main factors being corruption, and slow bureaucratic processes. The government needs to address these issues.

Is Bulgaria's private domestic investment sector developed?

A: Not to the extent that it should be, and it starts with the culture. Having only been a market economy-based nation for less than 50 years, there is no investment culture amongst the middle and upper classes. There is very little investment into domestic or global equity capital markets, and entrepreneurs and high-net-worth individuals tend to carry too much idiosyncratic risk by only reinvesting back into their own businesses, or into real estate. This has led to a new real estate bubble which will imminently lead to a painful market correction in the coming years, wiping out a significant portion of savings in the form of equity value for these groups of people.

As for the institutional investment sectors in PE and VC, there has been very little activity post-2008.

What is Your opinion regarding the start-up environment in Bulgaria?

A: It's a great place to do a start-up if your target markets are overseas, and if you are starting a digitally native venture. The low wages and low-cost environment mean that well-funded ventures can make little, and non-critical failures while they improve their products and business models.

What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?

A: I think that the effects of entrepreneurial innovation will take a long time to matriculate, but hopefully, it will lead to the adoption of lean production, manufacturing and programming process automation, greater profitability for mature ventures, and sector-specific clusters which would in turn attract opportunities for adjacent ventures.

Is the country capable of stimulating the development of entrepreneurial innovation?

A: We are yet to see. In the past 10 years, the country and the government have been ineffective in stimulating entrepreneurial development to the necessary extent. If the current government survives the current recession and financial crisis, it may be able to show positive results before the end of their mandate.

Participant #6

At what stage of development do You evaluate the country to be in?

A: While Bulgaria may be among the poorer countries in Europe, it has developed a lot since becoming a member of the European Union in many aspects.

However, since last year, the country's experienced various political instabilities due to the changing political parties that are now Bulgaria's acting government. Furthermore, since the beginning of this year, we have been observing increased inflation and increased electricity and gas prices further influenced due to the war in Ukraine. These events have forced the Bulgarian people and companies into a state of uncertainty by slowing down the already lethargic development of the economy even further.

What is necessary for the development of the economy of the country?

A: The first thing necessary for Bulgaria to flourish would be political stability. Once that is achieved and the constant turbulence that we all experience as business owners is resolved due to the aforementioned reasons, we will be on the critical development path.

What makes for a good environment for innovation?

A: In the beginning, it is challenging to develop an innovation without the state's support until it becomes ready for

commercialization. In order to create a suitable environment, it is necessary to have the government's support, and so far, in Bulgaria, there has been no policy to encourage such activity. Last year, The Ministry of Innovation and Growth was established to stimulate innovation; however, there has been no result so far.

When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?

A: The most important questions that I have considered for my business are:

1. How will I simultaneously develop and fund my project until I manage to make my business profitable?
2. How can I guarantee that the textile manufacturers I am working with supply me with internationally certified materials with guaranteed quality?
3. How will I popularize my business and assure my potential customers that my products are beneficial to their health and the planet?

How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?

A: To stimulate entrepreneurial innovation in Bulgaria, the government should provide consulting support and a certain amount from the state budget to encourage the development of such businesses.

In my opinion, the sector that can influence entrepreneurial development the most is tourism. Due to the favorable conditions in Bulgaria, tourism in our country /heritage tourism, cultural tourism, congress tourism, winter tourism, mountain tourism, sea tourism, etc./ could attract lots of people all year round.

What can companies do to promote innovation in the country?

A: (Bulgarian) Companies should focus on underdeveloped niches with great potential and analyze such niche markets in other countries (i.e., how it works there and what makes them successful). They'd need to 'dissect' the already working business model and add their input. Companies need to have diverse ideas and be ready to discuss them with various people- from interns to the founding members.

Once they figure out which business models they would follow, how to develop the specific projects, and what the innovations would look like, the companies would need to work on their proposals to make them appealing to investors and the general public.

Is there governmental support in Bulgaria for innovations and start-ups?

A: As previously discussed, while there may be a Ministry of Innovation and Growth, there have been no tangible results from it so far. There are funds set aside for such support; however, receiving financial support from the state could prove quite challenging unless the person behind the start-up does not have another business. Another source of income would 'prove' that entrepreneurs are financially stable and would not just misspend the money.

In Your opinion, is Bulgaria a favorable country for foreign direct investment?

A: It could be as the labor is relatively cheap compared to the rest of the European countries /Eurostat, 2021/. Furthermore, the corporate tax is 10%, one of the lowest globally. Hence, the investors are more likely to achieve the desired results of their investment by spending a fraction of what they otherwise would in other European countries.

Is Bulgaria's private domestic investment sector developed?

A: Bulgaria's private domestic investment sector is underdeveloped. While there are some investment funds, people do not place their trust in them; they prefer to buy their own real estate.

Bulgarians do not have a culture to invest in businesses and innovations.

From a purely psychological point of view, most Bulgarian people prefer owning properties over shares in companies.

What is Your opinion regarding the start-up environment in Bulgaria?

A: Unfortunately, in my opinion, the environment in Bulgaria is still not favorable and suitable for start-ups.

What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?

A: With the proper publicity, Bulgaria's business sector would flourish. If the ideas are presented appropriately and are innovative and well-founded, they could attract foreign investors.

Is the country capable of stimulating the development of entrepreneurial innovation?

A: Bulgaria would be fully capable of stimulating the development of entrepreneurial innovation once it fixes the model under which the Ministry of Innovation and Growth functions and starts working on a variety of projects.

Participant #9

At what stage of development do You evaluate the country to be in?

A: Bulgaria is still in a period of uncertainty because of the only recent adoption of democracy from 1991 (30 years ago). The turmoil of this change still affects the development of the country as a lot of the old practices connected to the previous political and economic regime remain detrimental in the progressiveness of the country. However, in recent years many businesses emerge both as start-ups and investments from foreign parties which contribute positively to the development of the country.

What is necessary for the development of the economy of the country?

A: Reforms in key areas such as the judicial and educational systems of the country are needed so that there is economic prosperity. Moreover, proper state support for private businesses is needed in order to achieve advancements in the economy. Lastly, state production and manufacturing, as well as agricultural projects aiming export are needed to better the economical state.

What makes for a good environment for innovation?

A: Security in terms of states support, financial options, and market niches are all important aspects for a good environment for innovation.

When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?

A: Positive predisposition from the government/state, meaning making sure that the entrepreneurial innovation will be well-received from the governing body and will be allowed to be developed in the country.

Capital and financing of the innovation through various channels such as funding and investment.

Willingness and openness of the people of Bulgaria to apprehend and react positively to the innovation.

How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?

A: Tax exemption and duties may stimulate the entrepreneurial innovation.

What can companies do to promote innovation in the country?

A: Provide examples of other successful innovations from abroad. Moreover, provide better job opportunities compared to the current state and private business options. Lastly, marketing campaigns promoting the idea of the innovation at hand and informing the mass that the innovation will bring positive changes and impact on the life and state of the country.

Is there governmental support in Bulgaria for innovations and start-ups?

A: As far as I am unaware, little to none is the governmental support for innovations and start-ups in Bulgaria. Since 2007 and the acceptance of Bulgaria in the European Union the main source of financial support for innovations in Bulgaria has been through European projects and funding from the EU.

In Your opinion, is Bulgaria a favorable country for foreign direct investment?

A: Bulgaria is a favourable country for foreign investment because of the educated and motivated generation that is now business-active and in desire to develop lasting businesses that contribute to the economic development.

Is Bulgaria's private domestic investment sector developed?

A: As the country only recently adopted private property (after the changes of 1991) there is still little domestic investment as there are little big enough businesses that might have the capacity and willingness to invest large amounts of capital.

What is Your opinion regarding the start-up environment in Bulgaria?

A: In recent years with the advancement of the Tech sector more and more start-ups emerged in Bulgaria mainly around IT with multiple accelerators aiming to invest and support start-ups.

What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?

A: Bulgaria will benefit from entrepreneurial innovation as it is in dire need of a change in terms of business policies and practices, especially when talking about the relation of private businesses and the state's established protocols.

Is the country capable of stimulating the development of entrepreneurial innovation?

A: Because of the recent events around the world such as the COVID-19 pandemic and the Russian-Ukrainian, combined with the uncertain political state of the country it would be difficult for Bulgaria to stimulate entrepreneurial innovation in the years to come. Until the situation is normalized both on a global and domestic level, the focus will remain to advance the current economical state by providing support to already existing businesses that are need.

Participant #10

At what stage of development do You evaluate the country to be in?

A: I would say Bulgaria is at a rather early stage of economic development, especially compared to western European countries.

What is necessary for the development of the economy of the country?

A: Political stability and improvement of business environment: More effort into fighting corruption and establishing stronger accountability. Provision of trainings, educational programs to produce a more skilled workforce. Fighting poverty by investing in infrastructure/housing which may result into improving mobility and connectivity.

What makes for a good environment for innovation?

A: Relevant and fulfilling educational programs, opportunities to gain funding/investments, belief in the legal system and authorities

When discussing entrepreneurial innovation in Bulgaria, what are the three main factors that should be considered?

A: no answer

How can entrepreneurial innovation be stimulated in Bulgaria? Which sector can influence the country's entrepreneurial development the most?

A: Strengthen educational systems/ provide trainings

Establish belief in the legal system/ government (Political reform which would allow innovators to remain in Bulgaria and establish businesses within the country)

Provide funding opportunities

What can companies do to promote innovation in the country?

A: Strengthen educational systems/ provide trainings;

Invest in innovation/ Provide funding;

Establish graduate programs in which graduates could showcase their innovation skills

Is there governmental support in Bulgaria for innovations and start-ups?

A: Very little to none.

In Your opinion, is Bulgaria a favorable country for foreign direct investment?

A: Yes, as there are still many sectors which must be developed and are still missing in the country, compared to more developed countries in western Europe.

Is Bulgaria's private domestic investment sector developed?

A: It could be much more developed.

What is Your opinion regarding the start-up environment in Bulgaria?

A: Easy to open an enterprise legally and it is not that expensive compared to other EU countries. However, start-ups are likely to receive little support by the government and could be easily crushed by bigger enterprises/ older businesses which are considered as competition.

What would be the consequences of having Bulgaria's business sector adopt entrepreneurial innovation?

A: Improved business sector: GDP growth;

Improved living environment: more workplaces, more products/services;

Improved demographics: more young people would stay in the country and start families here. Generally, a positive feedback loop.

Is the country capable of stimulating the development of entrepreneurial innovation?

A: After undertaking several steps, the country would be ready to stimulate development of entrepreneurial innovation. First, social belief and trust in the government and legal system should be established. Following, the country should resolve problems such as improved healthcare and educational systems. After establishing a more “friendly” environment for innovation, the country will be capable to promote entrepreneurial innovation.