Factors Affecting Successes and Failures of Entrepreneurship in Afghanistan

Master Thesis submitted in fulfillment of the Degree

Master of Business Administration

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AFFIDAVIT

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ABSTRACT

The purpose of this thesis has been to analyze the factors of success and failure of entrepreneurship in Afghanistan. The research has reviewed and analyzed Afghanistan's economy, focusing on exports and imports, foreign direct investment inward and outward Afghanistan's ecosystem, entrepreneurship ecosystem, barriers, business reforms, the interrelationship of the entrepreneurship ecosystem with key economic indicators, and drivers for good entrepreneurial activities and performance. Through empirical research, using a mixed method and mixed research design in particular explanatory sequential mixed method, a quantitative survey of 161 companies and qualitative bilateral interviews with 22 companies was conducted. It has been found that Afghanistan is not different than other countries in the world. Using a simple linear regression model, the research has analyzed and identified that entrepreneurship performance depends on a good entrepreneurial ecosystem including access to finance, good market conditions and business environment, good infrastructure, transport, access to skills, access to innovative assets, and a good institutional and regulatory framework.

The inferential analyses suggest that the entrepreneurial ecosystem does not function well given that entrepreneurship needs a good business enabling environment in which companies can compete, produce competitive and innovative goods and services, and contribute to the economy and overall welfare of the people. Meanwhile, access to the entrepreneurial ecosystem is limited to companies that have political affiliations with senior politicians or government officials. The affiliation was described as a code for a good entrepreneurial performance. Companies without political favouritism and nepotism are challenged by a series of factors, including a poor enabling environment, massive corruption in customs offices, lack of compliance and quality control enforcement, an irrational taxation system for tax base, paper-based accounting, political instability, unfair competition, suppliers' fraud in Central Asia (counterparty risk), United States sanctions on Iran, etc. In addition, drug smugglers are additional contributing factors through predatory pricing, as they need to convert their goods into cash.

Those companies that manage to survive in a very complex environment succeed because of their flexible business strategy, customer relationships, differentiations, blue ocean strategy, walking along the market demand, and language capabilities.

The statistical regression analyses have proved that there is a statistical dependency between the rate of success and individual variables: access to finance; market conditions and business environment; good infrastructure; access to skills; access to innovative assets; and institutional and regulatory framework. There is a linear relationship between a good entrepreneurial ecosystem and entrepreneurial performance.

To summarize, the performance of entrepreneurship depends on both the microeconomic environment and macroeconomic issues. Both are related to each other, without which there is an imbalance of performance.

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LIST OF ABBREVIATIONS

Administrative burden (BD)

Afghanistan (AFG)

Afghanistan Investment Services Agency (AISA)

Afghanistan's Local Currency (Afs)

Asian Pacific Economic Cooperation (APEC)

Automated teller machines (ATM)

Chief Executive Officer (CEO)

CPIA (country policy and institutional assessment)

Deputy Chief Executive Officer (DCEO)

Earnings Before Interests and Tax (EBIT)

Earnings Before Interests, Tax, Depreciations, and Amortization (EBITDA)

Foreign Direct Investment (FDI)

foreign direct investment net inflows (FDI INF)

Georeferenced Event Database (GED)

Global Entrepreneurship and Development Institute (GEDI)

Global Entrepreneurship Index (GEI)

Gross Domestic Product (GDP)

global competitiveness index (GCI),

Global Peace Index (GPI)

Government of Islamic Republic of Afghanistan (GiRoA)

IDA (International Development Association)

Information and Communications Technology (ICT)

Information Technology (IT)

international telecommunication union (ITU)

International Monetary Fund (IMF)

Institutional (insti)

institutional and regulatory framework (IRF)

Islamic Bank of Afghanistan (IBAFG)

Kilo Watt (KW)

market conditions and business environment (MCBE)

new business registration (NBR)

National Environment Protection Agency (NEPA)

Organization for Economic Cooperation and Development (OECD)

Official Development Assistance (ODA)

Patent Cooperation Treaty (PCT),

Political, Environment, Social, Technological, and Legal (PESTEL)

Positive Peace Index (PPI)

Research and Development (R&D)

Transparency International (TI)

Small Medium Sized Enterprises (SME)

United States of America (USA)

United States Dollar (USD)

United Kingdom of Great Britain (UK)

United Nations Conference on Trade and Development (UNCTD)

Uppsala Conflict Data Program (UCDP)

Value Added Tax (VAT)

1 INTRODUCTION

1.1 Research Context and previous research

Entrepreneurship was developed in the eleventh century BCE (Before Christian Era) in ancient Phoenicia. Sailing merchants and traders connected a commercial empire ranging from Syria to Spain, and even Ireland in the west (Frederick, et al. 2016, p.11). But it was recognized in the early eighteenth century. Entrepreneurship consists of doing things that are not generally done in the ordinary course of business routine. It constitutes a bridge between society, especially the non-economic aspects of that society, and the profit-oriented institutions established to take advantage of its economic endowments and to satisfy as best they can, its economic desires. Entrepreneurial behaviours suggest taking initiative, organizing/reorganizing the social-economic mechanism to turn resources and situations to practical account, while accepting the risk of failure (Frederick, et al. 2016. p.13).

In the twenty-first century, entrepreneurs, as the managers of entrepreneurship, are generally recognized as the agents of change, providing creative and innovative ideas for business enterprises, and helping a business to grow and become profitable. With creativity and innovations, many of them build highly valued social and business enterprises through creating new products and services. They also assume the risks associated with these ventures (Frederick, et al. 2016, p.14).

Several institutes and researchers have written about entrepreneurship's various specialized topics. One of the actors that has written tens of studies is the Organization for Economic Cooperation and Development (OECD). Research by the OECD titled "Top Barriers and Drivers to SME Internationalization" highlights that the internationalization of entrepreneurship has contributed to growth due to cross-border venturing. Entrepreneurship has significantly contributed to economic growth and development. The research also highlights key barriers entrepreneurship faces when entering international markets. The research prioritizes the major challenges collected from OECD and APEC economies. They include a shortage of working capital to finance exports, identifying foreign business opportunities, limited information to locate/analyse markets, inability to contact potential overseas customers, obtaining reliable foreign representation, lack of managerial time to deal with internationalization, inadequate quantity of and/or untrained personnel for internationalization, difficulty in matching competitors' prices, lack of home government assistance/incentives, and excessive transportation costs. Furthermore, other barriers include developing new products for foreign markets, unfamiliar foreign business practices, unfamiliar exporting procedures/paperwork, and meeting export product quality standards/specifications. Networks, supply chain links, social ties, immigrant links, and improved global trade infrastructure are considered factors to boost the internationalization of entrepreneurship. The research encourages the public sector to provide support at different stages to enable entrepreneurship. This includes providing network assistance through chambers of commerce and building partnerships and improving accessibility. A key recommendation to the policy markers to remove barriers is to address specific set of top barriers identified. In doing so, they need to make sure entrepreneurs

are aware of the services, and that they offer a check of quality standards of these services in terms of measuring the responsiveness, efficiency, and productivity (OECD, 2009). An article by Harvard University titled "What an Entrepreneurship Ecosystem is" claims that a strong entrepreneurship ecosystem does not lead to having more start-ups. Likewise, the article also claims that offering financial incentives for early stage risk investments does not stimulate the entrepreneurship ecosystem; the statement referred to a study where the return was considered worse than the alternatives. Contrary to the ecosystem presented above, the article claims there is no need to have an entrepreneurship education to have a strong entrepreneurship ecosystem due to lack of evidence (Isenberg, 2014).

A study published by the International Journal of Economics and Finance Issues, "Influence of Entrepreneurial Orientation on Firms' Performance: Evidence from Small and Medium Enterprises in Nigeria," revealed that proactiveness, risk taking, and autonomy are positively related to business performance (Ibrahim, et al.2020). An article by Harvard University titled "What an Entrepreneurship Ecosystem Actually is" has found that the top three challenges everywhere for entrepreneurship are access to talent, access to capital, and overcoming bureaucracy (Isenberg, 2014).

In a similar effort, the OECD has another publication titled "Small, Medium, Strong. Trends in SME Performance and Business Conditions" highlights that entrepreneurship contributes 60% of employment in the OECD region. The publication further highlights the contribution of entrepreneurship on government revenues through value added taxes, which account for around 50-60% in the region. The mentioned publication claims that regulatory barriers have been declining in general over time. However, entrepreneurship seems to suffer from subcomponents of the regulatory framework, namely regulatory procedures, administrative burdens on start-ups, and regulatory protection of incumbents. Given that the publication covers the OECD region, the regulatory framework has highlighted a common problem for entrepreneurship in the region. The research highlights the importance of public governance and confidence in entrepreneurship through effective programmes to facilitate a good business environment for the private sector and welfare for the citizens. The research underlines the influence of quality infrastructure such as roads, ports, airports, information technology, etc., and their operations on the competitiveness of business performance. The research emphasizes the importance of access to finance as the means for entrepreneurship to fulfill their potential to innovate, grow, and create jobs. The research has a critical emphasis on the human capital and skills development to compete in today's business environment. That means entrepreneurship needs to have access to qualified employees capable of solving complex tasks. The world has entered a critical stage of advanced technology; the research highlights the importance of knowledge, technology, and innovation as factors of production, efficiency, and productivity in a competitive world. Last but not least, having reliable and affordable energy is a key to the success of businesses (OECD, 2017).

An article titled "Entrepreneurship in Post Socialist Economies" by the University of Regina and West Virginia University concludes that several factors are associated with high rates of entrepreneurial activity in post socialist transition economies where Afghanistan can fit after the departure of the Soviet

Union. The factors include credit availability, contract enforcement, low government corruption, sound monetary policy, high foreign direct investment, and sound policies (Ovaska, et al. 2014).

An empirical research finding with 1042 respondents from different continents (North America, Europe, Australia/New Zealand, Asia, Africa/Middle East, South/Central America with Mexico) by the World Economic Forum titled "Entrepreneurial Ecosystems Around the Globe and Early-Stage Company Growth Dynamics" suggests that three areas of an entrepreneurial ecosystem are critical to controll major differences in understanding of entrepreneurial ecosystems with participation of regions in the research: accessible markets, human capital/workforce, and funding/finance. The research also suggests that entrepreneurs themselves can play a vital role in the entrepreneurial ecosystem, namely in the areas of mentorship, aspiration, investment, new founders, and new employees. The government and regulatory policies are associated factors of potential growth and growth inhibitors. In other words, government and regulatory policies can either be the drivers of growth or obstacles to growing (World Economic Forum, 2014).

Entrepreneurship is an integral part of the renewal process that pervades and defines market economies. Entrepreneurial companies play a crucial role in the innovations that lead to technological change and productivity growth. Entrepreneurial companies are an essential mechanism by which millions enter the economic and social mainstream of society. Small business entrepreneurs enable millions of people, including women, ethnic minorities, indigenous people, and immigrants to find prosperity for themselves and their families. Entrepreneurship can also play a positive role in delivering health, education, and welfare services efficiently (Frederick, et al. 2016). While entrepreneurship delivers tremendous services to the welfare of the world in various forms and perspectives, this phenomenon also experiences critical challenges: bankruptcy, the regulatory environment, business management and decisions, market recessions and depressions, customs and tariffs, tariff and non-tariff trade barriers, contract enforcement, credit regulations, international trading regulations, investor protection, labour regulations, licencing and permits, property law, research and development, innovation policy, personnel and human resources, finance, taxation, securities, banking, corruption, transportation, communications, energy regulation, communication, safety and security (Frederick, et al. 2016).

As stated above, there are many challenges entrepreneurship must encounter and fight against to be successful. This research will explore what factors make entrepreneurship either a success or a failure in Afghanistan. Afghanistan is considered a post conflict and developing country. While its GDP is growing, it is still dependent mostly on foreign aid. As shown in Figure 1, Afghanistan is ranked second after India among the top ten recipients of Gross ODA (Official Development Assistance) with more than 3 billion USD annual assistance. Afghanistan receives the highest foreign aid, ahead of India, Pakistan, Uzbekistan, Tajikistan, Turkmenistan, China, and Iran. The International Community has been working closely with Afghanistan to rebuild the necessary infrastructure towards a sustainable and self-sufficient state (World Bank, 2020). The World Bank Doing Business Report 2019 suggests that Afghanistan is among ten economies (the others are Djibouti, China, Azerbaijan, India, Togo, Kenya, Cote d'Ivorie, Turkey, and Rwanda) which brought major improvement in their respective economies, but more work

still needs to be done to make the country competitive and conducive for entrepreneurship (World Bank, 2020m).

To be self-sufficient, improving the enabling environment for entrepreneurship is very important. Entrepreneurship is a key driver for economic growth, employment, local development, and poverty reduction, which overall contribute to reducing dependency on foreign aid. To reiterate, this makes entrepreneurship a vital source for the purpose. It constitutes a bridge between society, people, and government. It is recognized as an agent of change, and provides creative and innovative ideas. Entrepreneurial companies are an essential mechanism by which millions enter the economic and social mainstream of society. Small business entrepreneurs enable millions of people in various sectors to find prosperity for themselves and their families (Frederick, et al. 2016). For example, small and medium enterprises (SME) in Australia accounted for 68% of employment in the private sector in 2016-2017. Likewise, in Austria, SMEs offered employment to 67.5% of the employable labour force as of 2015. In Brazil, SMEs account for 27% of GDP (OECD, 2019).

Having observed what entrepreneurship contributes in society and how makes it important to investigate what factors contribute to the success and failure of the driver of economic growth and employment "entrepreneurship" by testing certain variables as hypotheses quantitatively. The variables or determinants of entrepreneurship are developed by OECD but adjusted for this purpose. The determinants include access to finance, market conditions and business environment, infrastructure, access to skills, access to innovative assets, and institutional and regulatory framework. Probably, the research result will be shared with relevant authorities to provide a fundamental understanding of root causes of successes and failures of entrepreneurship for necessary actions in improving the situation in favour of entrepreneurship in Afghanistan.

The research will analyse the entrepreneurial ecosystem of Afghanistan through a quantitative method and capture the respective companies' inside relevant to the factors of success and failures in the qualitative part as a holistic approach to deeply analyse the factors. The variables used in this research are to test some hypothesis have been also used in different theories in promoting entrepreneurship. For example, determinants of entrepreneurship: regulatory framework, market conditions, access to finance, creation and diffusion of knowledge, entrepreneurial capabilities, and entrepreneurial culture have been theorized, developed by OECD, and used in the region (OECD, nd). The World Economic Forum has developed a competitiveness framework which measures competitiveness as a critical ecosystem of entrepreneurship using the following variables: institutions, infrastructure, ICT, macroeconomic stability, skills, financial system, market size, and innovation. (World Economic Forum, 2019b, p. 2). Likewise, The Global Entrepreneurship and Development Institute has an entrepreneurial index which is a framework composed of 14 indicators in three categories, namely entrepreneurial attitudes, entrepreneurial abilities, and entrepreneurial attitudes, where key variables such as start up skills, human capital, production innovation, risk acceptance, competition, risk capital, and internationalization are some of the 14 indicators to measure entrepreneurship (GEDI, 2020).

As explained in the theoretical part, a couple of theories were reviewed to see how they analyse the success of companies. The Altman Z model uses a few metrics to analyse performance. Insolvency metrics are another model used to measure the performance of entrepreneurship. Likewise, business strategies contribute to the success of companies, as explained in the theoretical part.

1.2   Research aims and objectives

The purpose of this research is to analyze the factors affecting the successes and failures of entrepreneurship in Afghanistan. Given the complexity of the country in terms of decades of political instability, a comprehensive approach or a mixed approach has been selected through qualitative and quantitative methods to capture the factors in a holistic approach from different available industries, sub industries, including companies which export, import, manufacture products, and offer services, as explained in detail in the sampling section. For the quantitative method, seven hypotheses have been developed, testing if entrepreneurship performance depends on those variables or indicators. A tremendous amount of academic literature has identified these indicators as important for entrepreneurship performance within different theoretical frameworks: the entrepreneurial ecosystem, determinants of entrepreneurship, entrepreneurship index, and the global competitiveness index.

The first hypothesis is "entrepreneurship performance depends on access to finance". This includes accessibility of companies to financial systems, access to credit, if the government has subsidized interest rates or the cost of capital especially financing debt, international transfers, financial products, interest rates or the cost of capital, sources of financing, etc. The above-mentioned areas have been summarized into one variable "access to finance".

The second hypothesis is "entrepreneurship performance depends on market conditions and business environment". The indicatosr measure if the government procures its supplies from domestic markets, the capacity of companies to supply the markets with required services and outputs, barriers to investments both domestically and internationally, competence and quality of logistics, and investment and trading opportunities. Again, the mentioned areas have been summarized into one variable "market conditions and business environment".

The third hypothesis is "entrepreneurship depends on good infrastructure." This includes reliable border infrastructure and customs administration, transport infrastructure, energy, and communication. The mentioned areas have been summarized into one variable "access to infrastructure".

The fourth hypothesis is "entrepreneurship performance depends on access to skills". This encompasses specialized skilled labour, the company's entrepreneurial skills, employees' training, and capacity to analyze investment opportunities and make good decisions.

The fifth hypothesis is "entrepreneurship performance depends on access to innovative assets". It encompasses accessibility to modern technology including big data to be used in supply and value chain, collaboration for innovation, research, and development.

The sixth hypothesis is "entrepreneurship depends on an institutional and regulatory framework." It encompasses regulatory framework, property registration, land acquisition, government supports to business, and a participatory mechanism in which businesses' voices and issues can be heard.

The last hypothesis is "entrepreneurship performance depends on an entrepreneurial ecosystem," encompassing the above six indicators affecting the entrepreneurship performance.

The quantitative part of the research will be backed up by the qualitative part. Through bilateral interviews, the selected companies in the cities of Mazar and Herat, Afghanistan will discuss their stories on factors that affected their successes and failures in the performance of their businesses in a complex environment such as Afghanistan. Their stories will be captured, categorized, and modelled, as appropriate. While this research captures inside entrepreneurship, it will also provide awareness on how entrepreneurs do business in complex, volatile, vulnerable, and uncertain conditions where predictability of either macroeconomic or microeconomic factors are extremely difficult to model. However, the research hopefully also encourages strategic stakeholders to assist entrepreneurship in a strategic and fundamental way, given that entrepreneurship is considered a prescription for economic growth, employment, creativity, creation of values for households, productivity, and the overall economy of any jurisdiction. While this research has its specific narrow focus, it will also research for specific literature how entrepreneurship has been performing, factors of its success or failure, and how some countries in the world improve their entrepreneurial ecosystem as the critical factor to enable entrepreneurship. Believing that one size does not fit all, the research will also review specific factors of other countries as added values to give readers different perspectives.

1.3 Structure of thesis

The thesis structure starts with the introduction of entrepreneurship, detailing the research context, aims, and objectives including the hypotheses. Then, it moves to the literature review, where existing theories that measure the success or failure of businesses are critically analyzed. Furthermore, some theories theorize how and what factors lead to good business performance.

The literature also reviews critical and relevant frameworks such as: entrepreneurship index, competitiveness, determinants of entrepreneurship, corruption, peace, security, terrorism, and their relationship with entrepreneurship. The entrepreneurship ecosystem relationship has been critically reviewed with the above-mentioned framework, namely entrepreneurship index, competitiveness, economy, etc. using existing data around the world to add a different perspective in this research.

Since this topic is about entrepreneurship performance in Afghanistan, it discusses Afghanistan's economy, import, and export. The thesis critically analyses Afghanistan's ecosystem, focusing critically on access to finance, business reform in Afghanistan, entrepreneurship barriers, infrastructure and logistics, risk, and uncertainty of policies.

The methodology part talks about methods, tools, sampling, locations, and other research methods used to conduct this research. In the discussion and results section, findings and analysis of the seven hypotheses are drawn up, in addition to the qualitative findings of the research including the descriptive part.

The research also recommends some future topics relevant to the topic of interested researchers. And, at the conclusion, the key findings are summarized.

2 LITERATURE REVIEW

2.1 Introduction

The theoretical part defines success and it will discuss theories on how success or performance is measured. The well-known famous key models include the Altman Z-score model, Zeta model, insolvency metrics, company valuations, and other business theories which are used to measure the performance of a company. Some factors which contribute to performance have also been discussed in the theoretical framework, namely the business strategy. This includes the business goals, objectives, operational plan, efficiency, financial planning, competitive advantage, supply chain, acquisition, and mergers as factors to affect the performance.

To measure entrepreneurship performance, it is important to review entrepreneurship barriers from different perspectives. In this section, the barriers will be discussed, reviewed, and analyzed from real world examples in order to widen and extend the perspectives beyond just Afghanistan. Entrepreneurship barriers can affect the performance of entrepreneurship based on the magnitude of their influence on day to day operations. Furthermore, the entrepreneurial index, which is the representation of an entrepreneurial ecosystem composed of 14 critical indicators and affects the performance of entrepreneurship, will be reviewed and analyzed with some specific case studies from around the world.

The relationship of entrepreneurship with the economy, especially with the famous macroeconomic indicator, will be reviewed and analyzed with specific global experience on how entrepreneurship can affect their economies. 42 economies in five continents (Europe, Africa, North America, Latin America, and Asia) will be part of this review coverage. In addition, the entrepreneurship ecosystem will be reviewed, considering critical elements such as risk capital, opportunity perception, startup skills, risk acceptance, networking, cultural support, technology absorption, human capital, competition, production innovation, process innovation, and high growth. The targeted economies will be again in 42 high income, middle income, and low-income countries in five continents: Europe, Africa, North America, Latin America, and Asia.

Venture capital investment will be reviewed in several markets around the world for enterprises at three stages: seed; startup and other early stages; and later stages. Twenty markets for venture capital investment at the seed stage, 23 markets during startup and early stage, 21 markets at the later stage of venture will be reviewed. And, overall the venture capital investment irrespective of stages and $\frac{Venture\ Capital\ Investment}{GDP}$ will be reviewed both in terms of growth and absolute dollar amount. The relationship of $\frac{Venture\ Capital\ Investment}{GDP}$ with the global competitiveness index through linear relationship will be reviewed in over 26 markets to learn if the availability of venture capital makes economies more competitive.

The entrepreneurship determinants developed by the OECD as the framework to measure entrepreneurship will also be reviewed. The indicators will be spelled out as the overall ecosystem contributing to an enabling environment to assist entrepreneurship performance. This includes the regulatory framework, access to finance, market conditions, creation and diffusion of knowledge, entrepreneurial capabilities, and entrepreneurial culture. Furthermore, the competitiveness framework, including its 12 pillars and its relationship to the economy, will be reviewed and analyzed. In addition, the relationship of competitiveness to entrepreneurship indicators such as the active population of enterprises, enterprise birth rate and death rate will be reviewed. Other key entrepreneurship ecosystems, namely corruption, peace, and security will also be reviewed.

Given the focus of this thesis on Afghanistan, the country's economy focusing on GDP, exports, imports, export/import partners, and foreign direct investment will be analyzed. A key element of this research is Afghanistan's ecosystem. The focus will be on access to finance, business reform in Afghanistan, entrepreneurship barriers, infrastructure, logistics, risk, and policy uncertainty.

2.2   Theoretical framework (if applicable)

The theoretical framework of success and failure is linked mostly with the business performance and how the companies generate revenues, profits, create values to the shareholders and stakeholders. Success and failure are theorized differently from various business lenses.

In the theoretical framework, there are two issues that should not be mixed. The first issue is that this research has analyzed those academic theoretical frameworks by which entrepreneurship or companies are measured in terms of their performance. This includes measurement of the success, the health of the business, probability of default, etc. In this context, the Altman Z-score model and insolvency metrics were identified which are used for this purpose. The second issue is what makes entrepreneurship a success or failure. This includes business strategy, corporate governance, operational factors, a good ecosystem, etc.

To reiterate, there are a couple of theories through which this master thesis will be researching. This includes the theoretical framework of success or failure. This means, how companies' success or failure is measured where the Z-score model is applied. In fact, the theory uses financial elements of companies from financial statements to predict probability of bankruptcy. Using quantitative finance, insolvency metrics are also used to measure the success or failure of companies in terms of probability of bankruptcy linked to the business performance. The insolvency metrics use the companies' financial reports, namely balance sheet, cash flows, and income statements, to predict the probability of insolvency. In fact, this theory uses the same financial elements of companies to predict the probability of bankruptcy as the Z-score model, but using different methods.

As indicated above, the next applicable theoretical framework is: what factors cause entrepreneurship to succeed or fail. The success and failure of businesses are theorized from different perspectives which will be elaborated below.

2.2.1 Altman Z-Score Model

The Altman Z-score model was developed by Edward Altman. The model is also called "Z-score model," and purports to predict corporate bankruptcy. The model predicts the bankruptcy of corporations using the following five variables or financial ratios: profitability, leverage, liquidity, solvency, and activity (Fabozzi, 2007).

$$X1 = \frac{Working\ Capital}{Total\ Assets} \qquad X2 = \frac{Retained\ Earnings}{Total\ Assets} \qquad X3 = \frac{Earnings\ Before\ Interests\ and\ Tax}{Total\ Assets}$$

$$X4 = \frac{Market\ Value\ of\ Equity}{Total\ Assets} \qquad X5 = \frac{Sales}{Total\ Assets} \qquad \text{Z-score} = 1.2X_1+1.4X_2+3.3X_3+0.6X_4+1X_5$$

The above five variables predict the probability of company's insolvency. Based on the financial reports of each firm, the Z-score model will compute if there is a potentially serious credit problem within the respective company or companies. In other words, the Z-score model computes the likelihood of the company's bankruptcy. If the Z-score model computation result is less than 1.81, it is translated that a company or a firm has a serious credit problem (likely to go bankrupt). However, a Z-score value of above 3 indicates a healthy firm (Fabozzi, 2007).

Figure 2a: Z-Score Model

> **Z-score Compution= $1.2X_1+1.4X_2+3.3X_3+0.6X_4+1X_5$**
>
> • If the result of Z-score is below 1.81, the firm has a credit problem
> • If the result of Z-score is excess of 3, the firm is healthy

In fact, the Z-score model was revised and upgraded to a new model called " the Zeta Model" which is composed of seven variables used to predict corporate bankruptcies. The variables include:

$$\frac{Earnings\ Before\ Interests\ and\ Tax\ (EBIT)}{Total\ Assets}, \qquad \frac{Standard\ Error\ estimate\ EBIT}{Total\ Assets} \text{ for 10 years,}$$

$$\frac{EBIT}{Interest\ Charges}, \qquad \frac{Retained\ Earnings}{Total\ Assets} \qquad \frac{Current\ Assets}{Current\ Liabilites}$$

$$\frac{Five\ Year\ Average\ Market\ value\ of\ Equity}{Total\ Capitalization} \qquad \text{Total Tangible Assets, normalized}$$

(Fabozzi, 2007)

The Zeta model predicts the probability of a company going bankrupt in the next two years. The lower the values of the computation, the more likely it is that the company goes bankrupt in the next two years. The interpretation of the Zeta model is the same as the Z-score model. To reiterate, a score above 3 indicates that the company is healthy. A score between 1.81 up to 2.99 indicates that the

company is in a grey zone. And a score of below 1.81 indicates that the company is in a distress zone (Fabozzi, 2007).

As a matter of fact, this model will not work for the purpose of this thesis to find the performance of individual businesses over time and the likelihood of bankruptcy. It requires the financial data of respective companies, which is not possible to gain, as the companies are not publicly traded companies, but private. It is important to mention it, however, to have cross checked the available academic theoretical framework with efforts to find out if it fits the research while trying to find the best theory to apply.

2.2.2 Insolvency Metrics

Another theory to prepare an insolvency opinion is insolvency metrics that can be used to assess the performance. A set of financial ratios are used as a company's indicators of insolvency including current ratios ($\frac{Current\ Assets}{current\ liabilities}$), quick acid or test ratios $\frac{Current\ Assets\ excluding\ inventories}{current\ liabilities}$, debt/equity ratio $\frac{Total\ Liabilities}{Shareholder\ Equity}$, Debt/total assets ratio $\frac{Total\ Assets}{Total\ Liabilities}$, liquidity index [(accounts receivable x collection period) + Investory + cycle period)]/(cash + accounts receivable + inventory), and solvency ratio, which is calculated by (after tax net profits + depreciation) / Total liabilities (Ranter, et al. 2009).

The current ratio is a liquidity ratio that measures if a company can pay its short-term obligations or liabilities within one year. Current ratios consist of cash, accounts receivable, inventory, and other assets that tend to be liquidated into cash within one year. Current liabilities refer to the accounts payable wages, and taxes payable. The way the results are interpreted when a company has a current ratio of 1. That means, for every $1 liability, the company has $1 current assets to meet its short-term liabilities (Brealey, et al. 2001).

The quick acid or test ratio is like the current ratio but ignores inventory. This is a stricter version that measures the capacity of companies to meet their short-term liabilities ignoring inventories. The interpretation of the quick acid result is the same as current ratios (Brealey, et al. 2001). The debt/equity ratio indicates how the company finances its operations via debts versus wholly owned funds or equity. It indicates if the debt is more than the equity and measures if the equity or shareholders' assets can cover the debt (Meyers, 2003). The debt to total assets ratio measures the amount of total debt to the total assets. In other words, it measures the total amount of debts relative to total assets. A higher ratio means there is a higher degree of leverage, which means there is a financial risk in the company (Query, et al. 2013).

The liquidity index helps to calculate the number of days it takes to convert accounts receivable and inventory into cash. It is used to measure companies' ability to generate the cash needed to meet their current liabilities. Finally, the solvency ratio measures a company's ability to cover its obligations in the short and long term. If the score of the solvency ratio is low, the probability of default is high. In other words, the lower the score of the solvency ratio the higher the probability of going to default

(Taillard, 2013). Given the data sensitivity of the model, it is not applicable for the targeted companies in Afghanistan, as they are not publicly traded companies.

2.2.3   Other Theories

Entering the finance world, there are many other theories used to measure the performance of a business in terms of liquidity management, valuation, credit rating, etc. which suggest the performance of companies (failure or success).

Structural models are credit risk models presented by Fisher Black, Myron Scholes, and Robert Merton. The model claims that a company defaults on its debt if the value of the assets of the company falls below a certain default point. This is also called firm value models. It depends on the company's structural issues as reflected in the balance sheet, as the Altman Z-score and insolvency matrix highlighted above. The reduced form model is another financial theory that looks at the probability of default or downgrading of a company (Fabozzi, 2007). The S&P 500 uses several financial metrics to measure credit rating, including EBIT interest coverage, EBITDA interest coverage, funds from operations/total debt, free operating cash flow/total debt, pretax return on capital, operating income/sales, long term debt/capitalization, and total debt/capitalization (Fabozzi, 2007). Company valuation is also a method that can be used to measure the performance of a business. Absolute valuation (present value models; discount cash flows) and relative valuation methods (price ratios, namely price to earnings to ratio, price to book value ratio, price to cash flow ratio, and enterprise value multiples) are used to value a company over time in terms of share price, capitalization, etc. (Pinto, et al. 2015). However, these methods are data intensive and depend on the financial statements of companies. The companies which are the targeted respondents for this research are not publicly traded companies. Therefore, it is not possible to have access to the financial data of tens of companies due to business sensitivity or privacy issues. As such, the companies will be rating their success based on a rating of 1 to 5, 1 being the best rate while 5 is the worst, in terms of business performance, which can be defined as the rate of success.

2.2.4   Business Strategy to Success

Seeing success or failure from a business strategy suggests that certain approaches and strategies will tend to contribute to the performance of the business. Good strategy, good strategy execution, and good management are described to be key elements of the company's ultimate success or failure. The management team directs business strategies and develops competitive strategic moves that need to be carried out in day to day business operations (Thompson, et al. 2018, p.13). To elaborate on one of the business strategies: "blue ocean strategy" offers growth in revenues and profits by discovering or inventing new industry segments that create altogether new demand. This strategy increases revenues and profits if successfully managed, and is then considered a key factor of success in business (Thompson, et al. 2018, p.152). Some other key indicators of success include increased sales, earnings growth,

stock price, financial strength, and customer retention rate. The mentioned indicators should be captured and compared historically to measure the performance of a company. An improvement in the mentioned factors will be considered success and vice versa.

Furthermore, capabilities and resources, diversification, entering new markets, research and development, strategic fit, economies of scale, economies of scope and good value chain are also key factors conducive to the success or failure of companies (Thompson, et al. 2018). The right application of the mentioned factors tends to increase the chance of business success and vice versa or failure if the factors are not applied the way they should be. For example, diversification is used to add a business line or a new product to improve growth. This makes business success when the diversification has a good strategic fit. It is considered a good fit, and is referred as a condition when one or more activities constituting the value chains of different businesses are sufficiently similar to present opportunities for cross business sharing or transferring of resources and capabilities that enable these activities (Thompson, et al. 2018, p.222). These conditions will reduce costs, and the concept of economy of scale and economy of scope would also be applied here (Case, et al. 1996). The below figure illustrates the strategic fit of the business-related value chain which shares resources and capabilities including supply chain activities, technology, operations, sales and marketing, distribution, customer services, etc. These factors lead to success. Whether the respondents mention them during the interviews will be further investigated. Likewise, mergers and acquisitions also are used to increase the company's opportunities in terms of sales, growth, and profits. Making a wrong decision in a company leads to failure. The strategy of merger and acquisition is meant to create synergy, but reportedly global experience indicates that they tend to fail. For example, Google's acquisition of $12.5 billion company Motorola Mobility turned out to be less beneficial to the Android ecosystem. Google eventually sold it for 2.9 billion in 2014 to China-based PC Lenovo. The theories behind these failures are cost savings prove to be smaller than forecasted, gains in competitive capabilities take longer than projected, corporate culture, resistence from employees, morale issues of employees, integration failures, etc. (Thompson , et al. 2018).
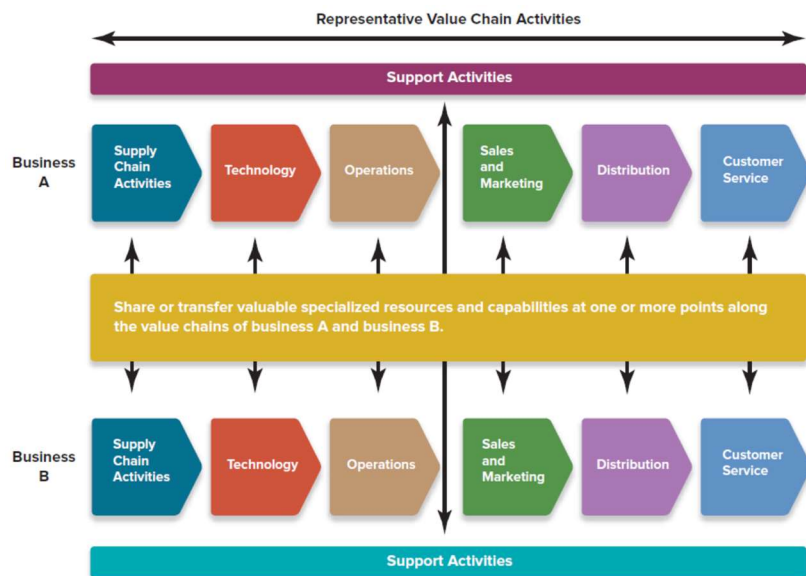
Figure 2b: Business Strategy

Source: Thompson, et al. 2018, p. 222

There are also macroeconomic factors, such as inflation, strong currency versus weak currency, the impact of government policies, economic conditions, GDP, economic growth, political risks, economic

risks, market conditions, supply, demand, and regional competition, which influence the performance of businesses (failure and success). Some of these factors might be contributing to the success or failure of entrepreneurship in Afghanistan to be investigated (Graham, 2013). Some other factors, including innovations, skills, leadership, and corporate governance also can also contribute to the success of businesses. Furthermore, usage of financial metrics to calculate net present value, prevent value, internal rate of return, hurdle rate, and other financial theories, if fulfilled increase the probability of success (Brealey, et.al, 2001).

To conclude the theoretical framework of the business strategy, if the companies refer to these factors as factors of success and failure, they will be investigated further.

Figure 2c: Interrelationship of Theoretical Framework

Source: All sources combined

2.3 Entrepreneurship Ecosystem

The entrepreneurship index or ecosystem refers to a combination of indicators that measure the health of entrepreneurship in each economy. The index measures the quality of the respective ecosystems, and discusses how they provide necessary assistance to help entrepreneurship succeed in the competitive business environment. The Global Entrepreneurship and Development Institute (GEDI) has identified fourteen components by which entrepreneurship health and how the respective ecosystems assist entrepreneurship in the evolving global economy (Acs, et al. 2018a, p.32).

As shown in Figure 2.1, the examples from China, Pakistan, Iran, and Tajikistan, the components start with "opportunity perception" which measures if the population can identify opportunities to start new businesses and if the institutional environment provides the necessary support to capture the opportunities. The second component is "start-up skills". It captures populations' perception of their skills to start a business or if they can acquire those skills in the respective economies. The third component is called "risk acceptance". It considers the willingness of individuals to take risks, the risk environment (if the ecosystem is a low or high risk environment), and how unstable institutions add additional risks to starting a new business. The fourth component is "networking". It measures if the entrepreneurs know each other and the extent of entrepreneurs' networks geographically. The fifth component is called cultural support. It considers the viewpoints of culture on entrepreneurship. It also measures the relationship of corruption to entrepreneurship. Opportunity perception, as the sixth component, asks if entrepreneurs are motivated by opportunity rather than necessity and if government provides any facilitation to make a choice of being an entrepreneur. Technology absorption, as the seventh component, considers the level of technology and how businesses absorb the new technology. Human capital, as the eighth component, measures if the entrepreneurs are highly educated, well trained in business, and able to move in the labour market. Competition, as the ninth component, considers whether entrepreneurs can create unique products and services, and enter the market. Production innovation, as the tenth component, measures if the respective economy or country can develop new products and integrate new technology. Process innovation, as the eleventh component, measures if the businesses can use new technology and if they can access high quality human capital in the STEM field. High growth, the twelfth component, measures the businesses' intention to grow and if they have the strategic capacity to achieve this. The thirteenth component, internationalization, considers whether entrepreneurs can enter global markets and if the economy is complex enough to produce ideas that are valuable globally. And the last component, "risk capital," measures if capital is available both from individuals and institutional investors. Putting all 14 components together, GEDI calls them the 14 pillars of the entrepreneurial ecosystem, as shown in Figure 2.2 below (Acs, et al. 2018a, p.32).
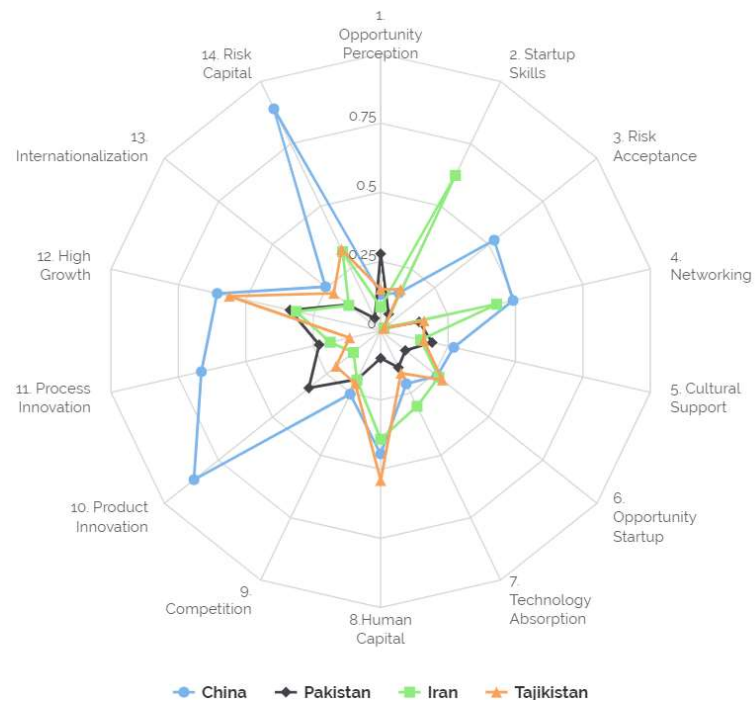
Figure 2.1: Entrepreneurship Performance
Source: GEDI, 2020

The entrepreneurship index has covered 137 economies around the world from different regions: Europe, Middle East and North Africa, South/Central America and the Caribbean, Sub Saharan Africa, and Asia Pacific. Unfortunately, Afghanistan is not part of this measurement. Overall, the global index measures an average 3% better performance in 2018 than in 2017. One continent is better than the others. For example, Europe shows stable high scores on technology absorption, internationalization, and start-up skills. The Middle East and North Africa scored well on product innovation and risk capital. North America scored well with the risk acceptance and opportunity perception. South/Central America and the Caribbean scored well in start-up skills and product innovation. Sub-Saharan Africa scored well in opportunity perception. The research reports that the 3% improvement on the global index could add an additional USD seven trillion to global GDP. The index also shows the performance of entrepreneurship in 137 economies. The USA, with a score of 83.6 ranked no. 1, followed by Switzerland (83.4), and Canada (79.2). The three lowest-scoring countries were Chad (9.0), Mauritania (10.9), and Burundi (11.8). Figure 2.1 above illustrates four of Afghanistan's neighbours, namely China, Pakistan, Iran, and Tajikistan. They compete for better scores in their entrepreneurship on 14 components in their respective entrepreneurial ecosystems. The literature concludes that the performance of components as a whole package of an entrepreneurial ecosystem are prerequisites and considered critical for good business performance (Acs, et al. 2018a, p.32).

	Sub-Indexes	Pillars	Variables (Individual/Institutional)
Global Entrepreneurship Index	Attitudes Sub Index	Opportunity Perception	Opportunity recognition
			Freedom (Economic Freedom * Property Rights)
		Start-up Skills	Skill Perception
			Education (Tertiary Education * Quality of Education)
		Risk Acceptance	Risk Perception
			Country Risk
		Networking	Know Entrepreneurs
			Agglomeration (Urbanization * Infrastructure)
		Cultural Support	Career Status
			Corruption
	Abilities Sub-Index	Opportunity Start-ups	Opportunity Motivations
			Governance (Taxation * Good Governance)
		Technology Absorption	Technology Level
			Technology Absorption
		Human Capital	Educational Level
			Labour Market (Staff Training * Labour Freedom)
		Competition	Competitors
			Competitiveness (Market Dominance * Regulation)
	Aspiration Sub-Index	Production Innovation	New Product
			Tech Transfer
			New Technology

		Process Innovation	Science (Gerd * (Average Quality of Scientific Institutions + Availability of Scientists and Engineers)
		High Growth	Gazelle
			Finance and Strategy (Venture Capital * Business Sophistication)
		Internationalization	Export
			Economic Complexity
		Risk Capital	Informal Investment
			Depth of Capital Market

Figure 2.2 Entrepreneurship Ecosystem

Source: Acs et al, 2018, p.32

A study titled "Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship," analysing Isenberg's model on entrepreneurship ecosystems, emphasizes that it is not enough alone to have entrepreneurship supporting programmes, but the whole ecosystem needs to provide favourable conditions for businesses to grow. Isenberg's model states that policy, finance, supports, human capital, markets, and culture need to interact together in the context of an entrepreneurial ecosystem to support entrepreneurship. In other words, there should be policies to enable businesses at different stages of business performance to enable them to compete. Policies should be comprehensive enough to fit different contexts, given that one size does not fit all. Besides, transactional supports will be ineffective, but long term supports are needed to ensure the evolving needs of entrepreneurship are considered, given the megatrends in the world. This means, there should be supports from pre-start-ups to post-start-ups. The entrepreneurship ecosystem needs to be responsive to support. Furthermore, public officials need to have proper metrics to determine the strengths and weaknesses in the ecosystem so that necessary actions can be taken in due time (Prof. Mason et al. 2014).

An article titled "Competitiveness, Entrepreneurship, and Economic Performance: Evidence from Factor-, Efficiency-, and Innovation-Driven Countries" suggests that innovation, higher education, and technological readiness have a positive and significant impact on the level of entrepreneurial activity in the targeted countries. Other factors, such as market size and the financial market has a positive impact on entrepreneurship in the targeted countries (Rostami, et al. 2019).

The performance of entrepreneurship depends on a good entrepreneurship ecosystem. Analysing the data set on entrepreneurship performance of 42 countries between 2006-2016, it has been found that there is a possible relationship between risk capital, which is defined as the availability of finance either formally or informally, and the entrepreneurship index performance (GEI, 2016-2016). Following the analysis of the data set, the findings suggest that there is a correlation of 0.78 between the dependent variable "GEI", and the independent variable "risk capital". There is an R square of 0.61, a t-stat of 25.58, and a p-value of 0.0000 which are considered statistically significant. As the data set has been plotted in Figure 2.7, countries including the USA, Norway, Switzerland, Denmark, the Netherlands,

Belgium, and Sweden have the highest GEI and risk capital. Countries with the lowest risk capital and GEI include Iran, Jamaica, Ecuador, Guatemala, Brazil, and Croatia.

The detailed results of the multivariate regression outputs in Figure 2.8 using the data set between 2006-2016 from 42 countries show the relationship of GEI and other variables, namely opportunity perception, start-up skills, risk acceptance, networking, cultural support, technology absorption, human capital, competition, production innovation, process innovation, and high growth. It indicates a significant relationship between the dependent variable "GEI" and the twelve mentioned independent variables. There is a correlation of 0.99, an R square of 0.99, and with t-stats of above 4, and p-values of 0.0000 which are considered statistically significant (GEDI 2006-2016 and World Bank 2006-2018). The test indicates that competition followed by technology absorption, and internationalization have the highest coefficient of determination while process innovation, product innovation, and high growth have the lowest coefficient of determination. The lowest t-stat is 6.31 and the highest is 15.84.

The literature review suggests that countries with good performance of start-up skills, risk acceptance, networking, cultural support, technology absorption, human capital, competition, production innovation, innovation process, opportunity, start-up, high growth, internationalization, and risk capital have a better performance than middle income and low income economies A summary of regression outputs is available in Figure 2.9, where GEI is regressed against the mentioned variables. (GEDI, 2006-2016 and World Bank 2006-2018).

2.3.1   Entrepreneurship and Economy as a Driver

Deeper analysis of some literature has been conducted by looking at the historical performance of the entrepreneurship global index. It measures the health of the entrepreneurship ecosystem in 137 economies (GEDI, 2016). The first literature review has been a quantitative study of 42 markets/countries' GEI or ecosystem's performance between 2006-2016 and regressed it with GDP per capita of the same time frame. The literature has covered countries from advanced economies, middle income, and low income from five continents – Europe, Africa, North America, Latin America, and Asia. The rationale to mix the data set from different economies is to see if there is a global pattern in terms of a relationship between the good performance of GEI and economic indicators such as GDP per capita (GEDI, 2006-2016 and World Bank 2019b). The regression result shows a correlation of 0.87, which is strong, an R square of 0.76, a p-value of 0.0000, and a t-stat of 35.93. Based on the rules of thumb, *if a p-value is equal to or less than 0.05, and t-stat is equal to or greater than +2. Or t-stat is equal to or less than - 2*, then it is considered statistically significant. In other words, there is a statistical dependency between the variables. Given an R square of 0.76, that means a variation or movement in GDP per capita is explained 76% by the GEI. So, keeping other variables constant when there is either an increase or decrease of GDP per capita, 76% is explained by the increase or decrease of the global entrepreneurship index. With a coefficient determination of 671.60, if the GEI moves by 1, the GDP per capita moves by 671.60. This gives us an obvious indication of the relationship when there is a good ecosystem in an economy, it pushes the growth, GDP per capita, and other economic drivers.

Given the regression results plotted in Figure 2.3, countries such as Norway, Switzerland, USA, Denmark, the Netherlands, the UK, Germany, Belgium, and France have both a high GEI score and GDP per capita. However, countries including Russia, Argentina, Guatemala, Jamaica, India, China, South Africa, Iran, and Uruguay have the least GEI and GDP per capita. As the researcher of this thesis, I tested the Pearson correlation to measure the linear relationship of these two variables. It has a correlation of 0.87, a t-stat of 35.93, and a p-value of 0.0000. This indicates significance between the two variables (GEI, 2006-2016, and World Bank 2019b).

To analyse further and investigate the data set (GDP per capita ~ GEI, period = 2006-2016), the advanced economies, and middle- and low-income countries were disaggregated. The purpose was to test how advanced economies can be different from the middle- and low-income economies. The data set with the observation of 162 from 17 middle- and low-income countries between 2006-2016 suggests that the independent variable "GEI" and the dependent variable "GDP per capita" have a correlation of 0.50, which is moderate. There is an R square of 0.26, a t-stat of 7.48, and a p-value of 0.0000 which are considered statistically significant. There is a coefficient determination of 231.12. As the regression result has been plotted in Figure 2.4, countries such as Guatemala, India, Jamaica, Peru, Bosnia, Ecuador, and Colombia are among the countries with the lowest GEI and GDP per capita on the list (GEI, 2006-2016, World Bank 2019b). Chile has the highest GDP per capita and GEI on the list, followed by Turkey, Romania, and Uruguay.

Based on data from the World Bank and GEDI on advanced economies with observations of 247 between 2006-2016, the majority of them are from European countries followed by Asia. It indicates a bit of a different pattern. First, there is a stronger correlation (0.80) between the variables "GDP per capita", and the independent variable "GEI" than the middle- and low-income countries. There is an R square of 0.65, t-stat of 21.55, and p-value of (0.000E-58) which are stronger than the middle- and low-income economies. There is a coefficient determination of 566.16. Given the statistical tests, there is significant dependency statistically between the variables (GEI, 2006-2016 and World Bank 2019b). To reiterate, there is a stronger relationship between the GEI and GDP per capita in the advanced countries than the middle- and low-income economies. As plotted in Figure 2.5, the countries with the lowest GEI and GDP per capita in advanced economies are Croatia, Hungary, Latvia, Greece, and Portugal. Russia is not considered a high-income country, but has been plotted in this sample size as the lowest GEI and GDP per capita. The countries with the highest GEI and GDP per capita are led by Switzerland, the USA, Denmark, Norway, and Ireland (GEI, 2006-2016 and World Bank 2019b).

A literature review on GEI for 2018 from 128 markets composed of advanced economies, middle income, and low income through a linear regression test suggests that there is a correlation of 0.85, an R squared of 0.73, a t-stat of 18.72, and a p-value of 0.0000, as plotted in Figure 2.6. This indicates a statistically significant dependency between the variables. Like the above pattern, those countries with a high score of GEI or ecosystem performance have high GDP per capita. (GEDI, 2018 and World Bank 2019b). In a multivariate regression from 2018 where GDP per capita as the dependent variable is

regressed against seven independent variables as detailed in Figure 2.10, there is a statistically signifi-cant dependency in the model. Similarly, their relationship of GEI with 14 variables in a multivariate regression has been proved to be statistically significant. Detailed regression outputs are in Figure 2.11.

2.3.2   Venture Capital Investment

Venture capital investment is a critical indicator to support an entrepreneurial environment through the provision of an enabling environment when the enterprises are at the development stages: seed, start-up and other early stage, and later stage venture. Certain economies around the world invest a significant amount of resources in venture capital. As illustrated in Figure 2.35a, the overview of ven-ture capital investment with absolute dollar amount between 2007-2018 at seed stage in 14 markets *(Austria, Belgium, Denmark Finland, France, Germany, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom),* Germany, France, and the UK seem to have the highest venture capital investment at the seed stage – between 17 and 200 million USD (OECD, 2020c). To compare 20 markets *(Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hungary, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom, and the U.S.A)*, in terms of annual growth over twelve years 2007-2018 as illustrated in Figure 2.35b, the USA has ranked 1 with annual growth of 31.27%, followed by France (27.59%), and Hungary (25.25%). Norway with a drop of -9.40% annually venture capital investment at seed stage ranks 20, followed by Poland with a drop of -4.01% ranks 19, and Finland with a drop of -2.12% annually ranks 18 (OECD, 2020c).

Regarding venture capital investment during start-up and other early stages in 23 countries *(Australia, Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom, Romania, and the United States)* as shown in Figure 2.35c, the leading countries on venture capital investment in absolute dollar amount are the U.K. and Germany *(The USA has been taken out from Figure 2.35c due to the large size of its economy which will overwhelm other markets, but it will be included in terms of annual growth over twelve years).* As far as the annual growth of the above 23 markets plus the USA is concerned, Czech Republic ranks 1 with an annual growth of 30.31%, followed by Hungary (26.35%), and Greece (23.67%) on the sample size. Among low performing countries, Ro-mania (-27.86%) ranks 24, followed by Norway (-13.54%) ranks 23, and Lithuania (-11.21%) ranks 22. Further details of other markets are available in Figure 2.35d.

At the later stage venture, 21 markets *(Australia, Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, and the UK)* as illustrated in Figure 2.35e, the leading markets in terms of abso-lute dollar amount are the UK, Germany, and France. *(The USA has been taken out from Figure 2.35e due to the large size of its economy which will overwhelm other markets, but it will be included in terms of annual growth over twelve years).* However, regarding the annual growth of 22 markets plus the USA as illustrated in Figure 2.35f, Estonia with annual growth of 17.08% over 12 years ranks 1, followed

by the USA with annual growth of 10.93% ranks 2, and Ireland (5.36%). The most poorly performing countries are Portugal with annual negative growth of -21.09%, which ranks 22, followed by Poland (-19.27%), which ranks 21, and Norway (-11.02%). More details on other markets are in Figure 2.35.f.

On total venture capital investment in absolute dollar amount in 30 countries *(Australia, Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Latvia, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, the UK, Russia, and Romania)*, France, Germany, Korea, and the UK are the leading countries, as illustrated in Figure 2.35g *(The USA has been taken out from Figure 2.35e due to the large sizes of its economy which will overwhelm other markets, but it will be included in terms of annual growth over twelve years).* However, on annual growth performance of the above 30 countries plus the U.S.A, Estonia with the highest annual growth (18.48%) ranks 1, followed by Hungary (15.18%) ranks 2, and Czech Republic (13.85%) ranks 3. The least performing countries are Romania with an annual downgrowth of -28.55% ranks 31, followed by Latvia with annual downgrowth of -12.40% ranks 30, and Portugal -11.08% ranks 3. As shown in Figure 2.35i the overview of 26 countries *(Australia, Austria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, South Korea, Luxembourg, Netherlands, New Zealand, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, the UK, the U.S.A, Romania, and Russia)* on, $\frac{Total\ Venture\ Capital\ Investment}{GDP}$ the USA has the highest percentage of total venture capital investment, % of total GDP. Other countries are Sweden, Korea Republic, Finland, etc.

Given the further reviews of different markets, it has been found that venture capital investment has a relationship with the global competitiveness index (GCI), GDP per capita, and global entrepreneurship index (GEI). At first, 26 markets were reviewed *(Australia, Austria, Czech Republic, Denmark, Canada, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Luxembourg, Netherlands, Poland, New Zealand, Portugal, Slovenia, Spain, Sweden, Switzerland, the UK, Romania, U.S.A, and Russia)* to learn about the relationship of venture capital investment with GCI. Using venture capital investment, % of GDP as the independent variable, and GCI as the dependent variable with 286 observations, it has been found that venture capital has a relationship with the global competitiveness index. Through a linear regression test, there is a correlation of 0.43 which is moderate, an R square of 0.19, a t-stat of 8.04, a p-value of 0.0000. This is considered statistically significant. Therefore, there is a dependency between the GCI and venture capital, % of GDP. The coefficient determination is 3.795. As plotted in Figure 2.36a, there is a linear relationship between the GCI, and venture capital investment, % of GDP.

The relationship of GDP per capita and venture capital investment, as % of GDP has been reviewed in 25 markets including *(Australia, Austria, Czech Republic, Denmark, Canada, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Netherlands, Poland, New Zealand, Portugal, Slovenia, Spain, Sweden, Switzerland, the UK, Romania, U.S.A, and Russia),* through using linear regression. The GDP per capita has been used as a dependent variable and venture capital investment, % of GDP as the

independent variable with 275 observations. It has been found that there is a correlation of 0.39, an R square of 0.15, a t-stat of 6.92, and a p-value of 0.0000. Given the regression outputs, there is a statistical dependency between the GDP per capita and venture capital investment, as % of GDP. The coefficient determination is 79,893.96. As plotted in Figure 2.36b, there is a linear relationship between the GDP per capita and venture capital, % of GDP.

And finally, the relationship of venture capital investment, % of GDP as the independent variable with GEI as the dependent variable has been reviewed in 19 countries *(Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Korea, Netherlands, Portugal, Slovenia, Spain, Sweden, Switzerland, the UK, U.S.A, Romania, and Russia).* With 173 observations, there is a correlation of 0.51, an R square of 0.26, a t-stat of 7.75, and a p-value of 0.000. Given the regression outputs, there is statistical dependency between the GEI and venture capital investment, % of GDP. The coefficient determination is 134.91. as plotted in 2.36c, there is a linear relationship between the variables. To conclude, based on historical data, countries with higher venture capital investment have better entrepreneurial, competitiveness, and economic performance.
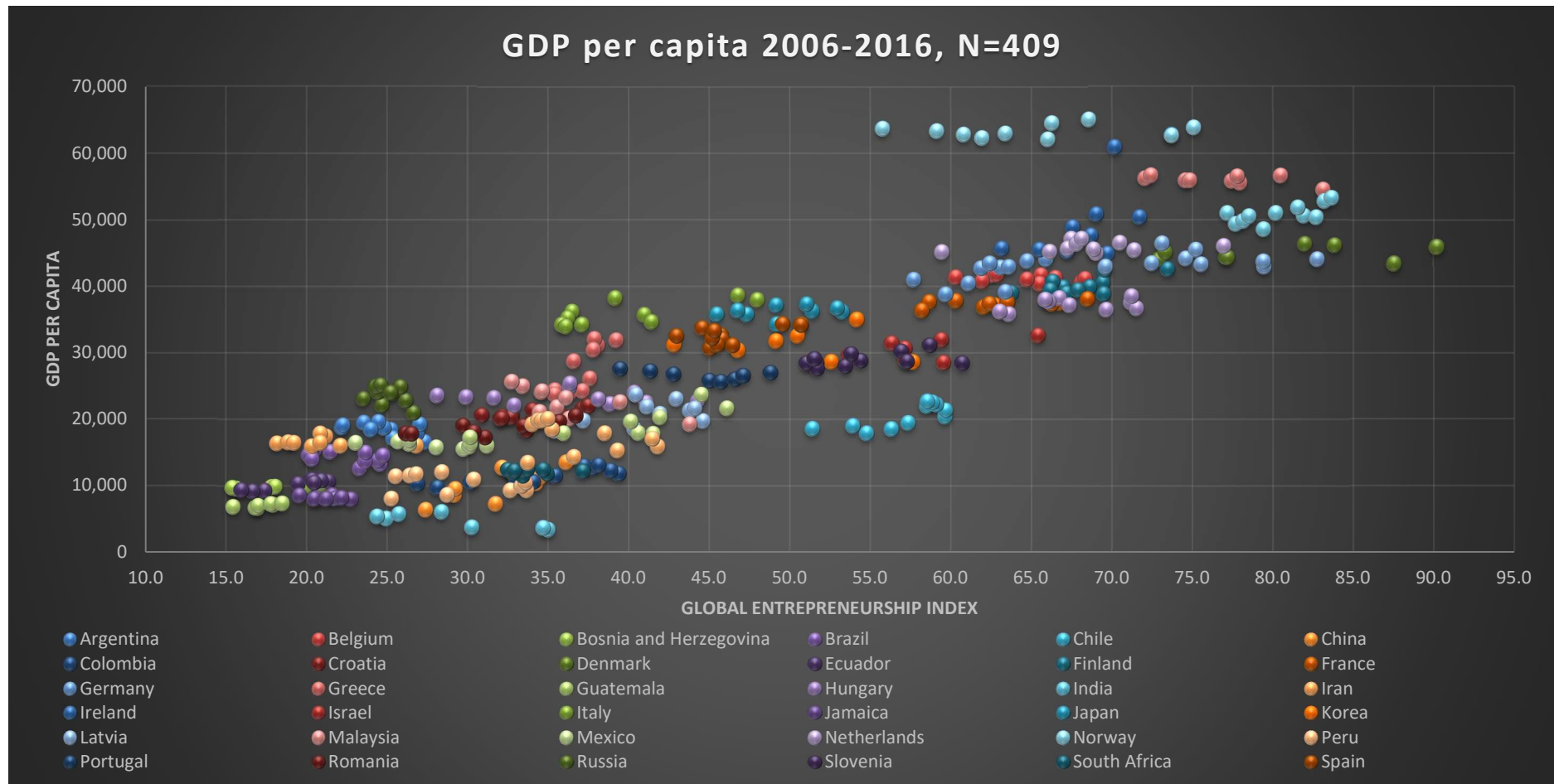
Figure 2.3: Relationship of Entrepreneurship Ecosystem with GDP per capita 2006-2016

Source: World Bank, 2019b and GEDI 2016-2016

Description of Variables/Data Set		Correlation	R Square	T-stat	P-value	Coefficient	Statistically Significant
128 countries: high, middle, and low income, 128 observations, year 2018, Model: GEI ~ GDP per capita		0.86	0.74	18.72	0.00000	99787.01	Yes
25 countries, advanced economies, 247 observations from 2006-2016, Model: GEI~ GDP per capita		0.80	0.65	21.55	0.00000	566.15	Yes
17 countries, middle and low income, 162 observations from 2006-2016, Model: GEI~ GDP per capita		0.50	0.25	7.48	0.00000	231.115	Yes
42 countries; advanced economies, middle, and low income, 409 observations from 2016-2016,	Model: GEI ~ GDP per capita	0.87	0.76	35.93	0.00000	671.60	Yes
	Model: GEI ~ Opportunity Perception	0.74	0.55	22.45	0.00000	53.12	Yes
	Model: GEI ~ Start-up Skills	0.65	0.43	17.62	0.00000	48.49	Yes
	Model: GEI ~ Risk Acceptance	0.82	0.68	29.85	0.00000	50.57	Yes
	Model: GEI ~ Networking	0.61	0.37	15.59	0.00000	52.29	Yes
	Model: GEI ~ Cultural Support	0.86	0.74	34.32	0.00000	59.13	Yes
	Model: GEI ~ Opportunity Start-up	0.90	0.81	41.66	0.00000	61.81	Yes
	Model: GEI ~ Technology Absorption	0.78	0.62	25.89	0.00000	54.40	Yes
	Model: GEI ~ Human Capital	0.71	0.51	20.79	0.00000	56.22	Yes
	Model: GEI ~ Competition	0.81	0.67	28.75	0.00000	58.56	Yes
	Model: GEI ~ Product Innovation	0.64	0.42	17.19	0.00000	46.78	Yes
	Model: GEI ~ Process Innovation	0.78	0.61	25.46	0.00000	51.86	Yes
	Model: GEI ~ High Growth	0.67	0.46	18.69	0.00000	54.98	Yes
	Model: GEI ~ Internationalization	0.68	0.47	19.05	0.00000	47.44	Yes
	Model: GEI ~ Risk Capital	0.78	0.61	25.58	0.00000	54.519	Yes

Figure 2.9: What explains the Entrepreneurship Ecosystem and how it contributes?

Source: World Bank, 2019b and GEDI 2016-2016

2.4 Determinants of Entrepreneurship

Given the importance of entrepreneurship in the economy shown in Figure 2.12, the OECD 2004 Istanbul Ministerial Conference on SME and Entrepreneurship recommended the need for a framework to measure the performance of entrepreneurship and its determinants. After an extensive consultation with policymakers, executives, and academia, the OECD has finalized a six-theme model called "determinants of entrepreneurship". The determinants are: access to finance/capital; access to R&D and technology; entrepreneurial capabilities; market conditions; regulatory framework; and culture. The themes are governed by different policies aimed to facilitate and enable entrepreneurship to perform in a competitive environment. The themes are divided by sub themes and the sub themes are divided by the respective components of each sub theme to break down each determinant (Ahmad et al. 2008).

Figure 2.12: Determinants of Entrepreneurship
Source: OECD, nd

2.4.1 Regulatory Framework

Given the fact that businesses are regulated, the regulatory framework is a critical component of entrepreneurship determinants. The companies are supposed to comply with the regulations at different stages of their performance. As illustrated in Figure 2.13, the regulatory framework has been broken into sub themes including administrative burdens (entry stage and growth), bankruptcy regulations, product and labour market regulations, court and legal framework, social and health security, income taxes, business and capital taxes, and patent systems (OECD, 2019b).

The administrative burden (BD) covers issues on the burden of government regulations where firms need to comply with specific areas of business performance. The BD covers costs required to start a business, the minimum capital required to start a business, the number of days required to start a new business, and the number of procedures to follow to start a new business. This means, what generic procedures are officially required to be followed by entrepreneurs to start a new business. In addition, BD covers issues on procedure time, and costs to build a warehouse. For example, the average time required to follow the procedures, official costs of each procedure, and the number of procedures to be followed to build a warehouse. Furthermore, BD also covers issues including property registration, and the time it takes to prepare, file, and pay corporate income tax, VAT (value added tax), and social contribution. Property registration includes a number of procedures legally required to register prop-

erty, time required to complete the procedures, and property registration costs (OECD, 2019b). Bankruptcy regulation is a critical element of the regulatory framework. It covers topics such as actual cost and time to close a business and bankruptcy recovery rate. The latter discusses issues of how the claimants, namely creditors, tax authorities, and employees, can recover their assets from an insolvent firm. Furthermore, bankruptcy regulations guide the possibility of a fresh start. They measure the possibilities of entrepreneurs to resume business after having faced financial difficulties, including restructuring of the firm and its debts.

Product and labour market regulations are another critical element under the regulatory framework, and cover key issues of hiring and firing of employees. It measures if there are regulatory implications to hire or fire a domestic or an international employee. It also measures if the respective companies can hire foreign employees and the ease of doing so. Furthermore, this component measures management compensation as well as the rigidity of hour, which means if night work is restricted, weekend work is allowed, number of workdays per week (five days or more), if the workday can be extended to 12 hours or overtime, and if paid leaves are taken into account (OECD, 2019b). Court and legal frameworks are also part of the regulatory framework. This covers issues such as enforcing contracts in terms of costs, the number of procedures to follow, and time. The costs are referred to as court costs, enforcement costs, and average attorney fees without bribes. Procedure refers to the number of procedures to follow, interaction between the parties – judges or court officers – steps to follow for trial, judgment, etc. Social and health security related issues are also covered under the legal framework, which covers issues such as public expenditure on unemployment support per unemployed, and public health care coverage.

Income taxes, as part of the regulatory framework, covers issues such as average income taxes, social contributions, given a family with or without children, marginal taxes and social contributions, revenue from bequest tax, and revenues from net wealth tax. Under the regulatory framework, business and capital taxes are also covered. This includes SME taxes, taxation of corporate income, taxation of dividends, marginal tax rate, and taxation of stock options. The last critical component is the patent system. Under the patent system, standard intellectual property protection and property rights which measures the performance of each country are covered (OECD, 2019b).

The United Nations Conference on Trade and Development (UNCTD), in a publication titled "Entrepreneurship Policy Framework and Implementation Guidance," emphasizes the importance of an enabling regulatory framework to support entrepreneurship in an effective way to respond to the entrepreneurial activities in the respective economies aligned with the context. The framework must be aligned with the country specific challenges, goals, and set of priorities to ensure coherent institutional support strengthening entrepreneurial activities (UNCTD, 2012).

An article titled "tax system evaluation model in the context of entrepreneurship promotion: theoretical aspect", published by the International Journal of Economics and Financial Issues concludes that the tax system is one of the measures and prerequisites for promotion of entrepreneurship and has a

direct effect on its performance (Cernius et al. 2016). A study titled "Business Start-ups' regulation and the complementarity between foreign and domestic investment" claims that complementarity between foreign direct investment and domestic investment depends on regulations to open a new business in a host country. The research argues that reform in business start-up regulations can play a key role in increasing entrepreneurship and economic growth in low income countries. The research considers factors such as cost of capital, government economic growth records, institutional quality, and market size (Munemo, 2014).

A publication titled "Explaining International Differences in Entrepreneurship: The Role of Individual Characteristics and Regulatory Constraints" uses a micro database, namely individuals, countries, and time to investigate entrepreneurial activities in thirty-seven countries composed of developed and developing countries. The research paid due attention to the individual characteristics and countries' regulatory differences. Given gender, age, and status in the workforce as key determinants of entrepreneurship, social networks, self-assessed skills, and attitudes toward risk are also important. However, the finding of the research suggests that regulations play a critical role in the decision to become entrepreneurs and seek business opportunities (Silvia et al. 2008). An article titled "Federal regulation and aggregate economic growth," published in the Journal of Economic Growth, suggests that regulation has statistically and economically significant effects on aggregate output and the factors that make up total factor productivity. Furthermore, it has effects on physical capital and labour. The research argues that regulations change the way output is produced through changes of input mix (Dawson et al. 2013). A study titled "Entry regulation as a barrier to entrepreneurship," published by the Journal of Financial Econometrics, explicitly highlights that costly regulations prevent the creation of new firms, even in industries that should naturally have high entry. Not only that, regulations also cause industries to slow down (Klapper et al. 2006). Different rules and regulations tend to discourage SMEs from exploring businesses and markets, and from expanding their businesses (Bacherer and Helms, 2016, cited by Alqassabi, 2020). The research suggests that regulatory burden affects business growth, survival, and daily activities, specifically unfavourable government rules and regulations in Oman where taxation is high. Using a Chi-Square test and Spearman rank correlation, the research concludes that the major problems SMEs face in Oman are rules and regulations of doing business, the competition, and the lack of financing. Government supporting programmes to SME are considered a strategic move to diversify Oman's economy (Alqassabi, 2020).

The World Bank Doing Business Index Report 2020 emphasizes the importance of regulations over the performance of entrepreneurship. The report points out that investors tend to avoid economies where regulations manipulate the private sector. The research claims a causal relationship between economic freedom and GDP growth. The research also underlines that economies with the highest scores of ease of doing business have extensive use of electronic systems, online business incorporation processes, electronic tax filing platforms, and allow online procedures for property transfers. In those countries which are in the top 20, starting a business is six times easier than in the countries in the rank ranges below 50. Furthermore, getting electricity permits takes longer and the cost of connection of electricity

is most costly in countries ranked below 50. Commercial resolutions are also an issue; they take on average of 2.1 years in countries ranking below 50, while in higher ranking countries, such resolutions average of 1.1 years (The World Bank, 2020a).

The World Bank Doing Business Index Report 2020 argues that a business friendly regulatory framework promotes growth and development, given that new entrants with innovative ideas can start businesses allowing investments and expansions which lead to the creation of jobs. The report concludes that improving regulatory efficiency has positive effects on entrepreneurship, firm formalization, and access to credit, and promotes foreign direct investment.

2.4.2 Access to Finance/Capital

Access to finance/capital is considered an important element of entrepreneurship determination. It is a broad finance-related topic relevant to entrepreneurship. As illustrated in Figure 2.14, this includes access to debt financing, which touches issues of country credit rating, domestic credit to the private sector, ease of access to loans, interest rate spread, and legal rights index. Domestic credit to the private sector refers to the availability of credit to the private sector, including loans, purchase of non-equity securities, trade credits, and other accounts receivable that establish a claim for repayment. Ease of access to loans refers to the ease of accessing loans from banks. Interest rate spread refers to the interest rates charged on principal; the legal rights index refers to collateral and bankruptcy laws that facilitate lending (OECD, 2019c). Since venture capital is part of entrepreneurship, access to finance also covers it through "access to venture capital". Therefore, venture capital availability for risky projects, level of investment towards young businesses in seed and start-up phases, and expansion of venture capital for young firms during the expansion phase are a critical part of it. The stock market is also covered under access to finance/capital. Under the stock market, buyouts provide information about acquiring a business unit or a company from current shareholders. Furthermore, it covers issues of capitalization of the primary stock market, secondary market, investor protection, market capitalization of newly listed companies, and turnover in the primary stock market (OECD, 2019c).

The World Bank, as a keynote on "Financial Development," shares its empirical evidence that financial sector development can help the growth of small and medium-sized enterprises, since a functional system can facilitate access to finance for SMEs (World Bank, 2020n). A book titled "Innovative Experience in Access to Finance" published by the World Bank Group suggests that a lack of access to finance prohibits households and firms from financing high-return investment projects causing negative impacts on economic growth and alleviation of poverty. According to the collective views of economists, the book underlines that the states have a role to broaden access to finance, as it opens opportunities for economic growth, entrepreneurial activities, poverty reduction, and development (De la Torre et al. 2017). A policy research working paper titled "Access to Finance and Job Growth, Firm-Level Evidence across Developing Countries," published by the World Bank Group, investigated the effect of access to finance on 50,000 firms across 70 countries. The findings suggest that increasing

access to finance leads to higher employment growth, in particular among micro, small, and medium enterprises (Ayyagari et al. 2016).

Research on SME in Turkey concludes that the role of SME is important and conducive in the socio-economic context. Given that 99.9% of enterprises fall within the category of SME, the role of the SME was given high importance (Karadag, 2015). The author recognizes the extensive challenges SME face in Turkey's poor financial management. Öndes and Güngör (2013), Sahin (2011), Cetin, Akyuz, and Genc (2011), Güler (2010), Koyuncugil and Özgülbas (2008), cited by Karadag (2015), acknowledge insufficient levels of equity and poor access to external finance as major challenges of SME in Turkey. A publication by the World Bank, quoting a series of other studies, some of which were conducted by the World Bank itself, highlights the association of well-developed and inclusive financial systems with more rapid growth and better income distribution. The publication emphasizes the importance of access to finance not only for households to fight poverty but for firms to have a foothold in the modern economy (Basu, 2006). The arguments suggest the importance of economic growth as a favourable condition to entrepreneurship, providing a good opportunity for growth and performance.

In a publication (Bossoutrot, 2005), it has been noted that microfinance has been used as a mechanism to assist self-employment and small-scale entrepreneurship, in particular trade and services, as a response to the transition to a new economic model in Russia due to the collapse of large state owned enterprises in the early 1990s. Contrary to developing countries, where microfinance targets uneducated and semiskilled workforces, in Russia microfinance was used to support a well educated class of new poor. The literature further describes four types of institutions that manage microfinance activities: commercial banks, specialized NGO-type microfinance institutions, membership-based institutions (rural cooperatives and credit unions), and public funds. It reports that the market size for microfinance has been increasing as an alternative source of funding. The literature further elaborates that donor-supported microfinance has been quite successful in Russia's market.

2.4.3   Market Conditions

Figure 2.15 covers topics such as anti-trust laws, competition, access to foreign markets, the degree of public involvement, and private demand. Antitrust laws framework encompasses the scope and enforcement of laws and independence of the government authorities. Competition/network policies cover issues such as the independence of regulators and accessibility. Access to foreign markets refers to the export and import burdens on entrepreneurship. This includes the number of documents required to export/import goods, the number of signatures, and the time required to comply with all procedures. The degree of public involvement measures the engagement of governments in providing outputs/goods in the market through government enterprises and investment. Furthermore, it touches issues such as private demand, licensing restrictions, price controls by the government, and bank ownership (OECD, 2019d).

A publication by the World Bank titled "The Impact of Business Environment Reforms on New Firm Registration" found that costs, days, and procedures for starting a new business are key predictors of new firms' registration. The research findings suggest that there are synergies in multiple reforms of two or more business environment indicators. The easier the burdens the more chance for entrepreneurship to grow, create value, and innovate (Klapper et al. 2011).

2.4.4 Creation and Diffusion of Knowledge

This is considered vital for entrepreneurship growth and survival. As illustrated in Figure 2.16, it encompasses critical issues such as research and development (R&D) activity, transfer of non-commercial knowledge, cooperation among firms, and technology availability. R&D activity refers to business expenditure on R&D, government expenditure on R&D, higher education expenditure on R&D, international cooperation on patent applications through the PCT (Patent Cooperation Treaty), private funding for R&D activity, and public funding for R&D activity. Transfer of non-commercial knowledge refers to the issues of research in the higher education sector financed by businesses, the share of patents owned by universities, and other public research organizations as a source of innovation, and the collaboration of university and research institutes. Cooperation among firms is vital as a source of innovation. And technology availability and take up cover issues including turnover from e-commerce, enterprises using e-government, ICT expenditures, and ICT expenditure in communication (OECD, 2019e).

2.4.5 Entrepreneurial Capabilities

As illustrated in Figure 2.17, under this important subtheme are components such as business and entrepreneurship education (skills) and immigration. The business and entrepreneurship education (skills) refer to the share of international students in tertiary enrolments, population with tertiary education, quality of management schools, percentage of people who receive training either voluntary or compulsory to start a business during school, and after school. Immigration refers to the inflows of foreign labour, migrants with tertiary education, self-employment by place of birth, and stocks of foreign labour (OECD, 2019f).

Research on "Human capital investment and economic growth in Saudi Arabia: error correction model", published in the International Journal of Economics and Financial Issues, suggests that investment in human capital, with the right policy assessment and rehabilitation, can potentially be a critical element of growth in Saudi's economy (Bokhari, 2017).

2.4.6 Entrepreneurship Culture

As illustrated in Figure 2.18, it covers the desirability of becoming self-employed. Furthermore, it gauges the entrepreneurial intention and motivations of citizens. This subtheme measures fear of failure as an obstacle to starting a new business. Furthermore, it measures good conditions to start a new business, the image of entrepreneurs, the risk of business failure (willingness to take risks given the

probability of failure), and the wish to own a business. The last component talks about the preferences of getting self-employment in a particular jurisdiction from cultural perspectives (OECD, 2019g). An article titled "The role of entrepreneurial culture as the driver of economic growth" suggests a positive and significant influence of entrepreneurial culture and network on regional economic growth. The research concludes that culture as the basic behavioural pattern of the businesses, the social entrepreneurial network, and entrepreneurial culture is considered a driver of sustainable economic growth in Indonesia (Prasetyo, 2019).

2.5   Competitiveness

The World Economic Forum (WEF) defines competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country (World Economic Forum, 2020). Competitiveness is considered a means of attribution and qualities of the economy that allows more efficient use of factors of production. Competitiveness is anchored by growth. In other words, it is also called the determinant of long-term growth. Research with a data set from 141 countries suggests that competitiveness explains 81% variation in the dependent variable "GDP per Capita" (World Economic Forum, 2019a, p.2).
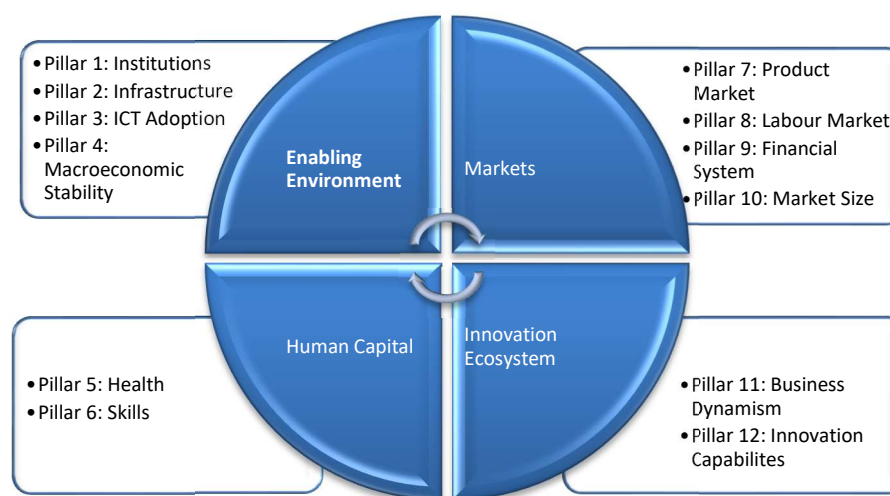
Figure 2.19: Competitiveness Framework

Source: World Economic Forum, 2019a

Given the relationship of the enabling environment (institution, infrastructure, ICT adoption, macroeconomic stability), human capital (health and skills), market (product market, labour market, financial system, and market size), and innovation ecosystem (business dynamism and innovation capabilities) with entrepreneurship, competitiveness plays a critical role in business performance whether the competitiveness is at the firm level, industry level, or country level. However, the main purpose of bringing this topic into the literature review is to emphasize how competitiveness plays a positive role in entrepreneurial activities around the world. The competitiveness concept has been followed by the World Economic Forum since 1979 to measure the performance of most of the economies around the world

based on twelve key pillars and 103 indicators as highlighted above (World Economic Forum, 2019a). GCI between 2007-2017 suggests that countries with high scores of competitiveness in the twelve pillars tend to have high economic growth. And, economies with high GDP per capita also allow its citizens to have a high purchasing power which leads to better performance of entrepreneurship or business performance (World Bank, 2020n).

On a similar note from the Networked Readiness Index 2016, its 2nd pillar, Business and Innovation environment, suggests that countries with the highest score – Singapore, Hong Kong, United States, Canada, United Kingdom, New Zealand, Norway, Switzerland, Finland, and the Netherlands as the top ten countries – tend to have a better environment for entrepreneurial activities, specifically birth rates, survival rates, bankruptcies, and other relevant issues vital to support entrepreneurship. Some of the countries from the same index with the addition of Finland, Belgium, Qatar, Germany, and Ireland on the 5th Pillar: Skills have better performance and the mentioned jurisdictions have better entrepreneurial activities than those with the least scores which are normally in the emerging markets (World Economic Forum, 2016b).

The Network Readiness Index is a critical business index. It is composed of over 1800 indicators on entrepreneurship, technology, and innovation from 150 countries. Based on the scores of business, technology, and innovation, the index has clustered countries into four peer groups. The clusters include most favourable, favourable, somewhat favourable, and least favourable. In the most favourable group, there are 26 countries. The countries are from East Asia and the Pacific, Europe and Central Asia, North America, and the Middle East and North Africa. Mostly the countries are from Europe and Central Asia, followed by East Asia and the Pacific. These countries are high income, the most innovative, and with the most entrepreneurial activities. (World Bank, 2020o). Innovation is enabled by access to the latest technology. The high innovation zone has been identified to have the most R&D and high collaboration with universities. Characteristics of innovative countries are noted to be high income, availability of technology, professional management, and high innovation. The research argues the relationship of innovation to the strength of the business and innovation environment in most high-income countries. The highlighted zones with the most favourable conditions have higher scores in the business and innovation environment to support entrepreneurship. In the most favourable group, developed Asia and Pacific countries are Hongkong, Malaysia, Singapore, Japan, and New Zealand. The mentioned countries have a good supporting business environment. Countries that are clustered as somewhat favourable and least favourable are in Sub Saharan Africa and Latin America, where entrepreneurship has a less favourable supporting environment (World Bank, 2020o).

A publication by the World Bank titled "Competitiveness for Jobs and Growth" argues that competitiveness cities use a competitive menu of interventions to increase competitiveness including institutions and regulations, infrastructure and land, skills and innovation, and enterprise support and finance. Given the economic multidimensional values of entrepreneurship, SMEs prefer locations where they can have proximity to suppliers and consumers, connecting infrastructure, and basic services. Likewise, entrepreneurs are more likely to establish businesses or expand businesses in favourable

regulatory and financial environments. Taking these motivations into account, cities' officials focus on removing barriers and improving regulatory frameworks. Access to credit encourages SMEs and multinational corporations to establish their facilities in the competitive cities. The research finds that the private sector wants location endowments (proximity to major markets, distributors, natural resources), relationship with the city (networks), general business environment (macroeconomic stability, growth potential, institutional and regulatory environment, labour availability, skill and cost, infrastructure and availability of land, "sweeteners" – fiscal and nonfiscal incentives. Therefore, firms' performance is associated with four key pillars: institutions and regulations, skills and innovation, infrastructure and land, and enterprise support and finance (World Bank, 2016b).

A study published by the International Journal of Economics and Financial issues titled "An analysis of the macroeconomic determinants of entrepreneurial activity in Turkey" found that there is no correlation between access to credit, economic confidence index, unemployment rate and entrepreneurial activity, while inflation rate, foreign direct investment, and industrial production index are related in the Turkish market. This research refers to the period between 2007-2017 (Tomak, 2018). A study from most of the emerging markets by IMF's staff titled "Rethinking Financial Deepening: Stability and Growth in Emerging Markets" argues that financial development increases a country's resilience and boosts economic growth. It mobilizes savings, promotes information sharing, improves resource allocation, and facilitates diversification and management of risk. Given that macroeconomics is a key driver of competitiveness, financial development plays a critical role in the development and survival of entrepreneurship. The data in the financial development index from more than 200 economies around the world suggests that those countries with better performance of financial development index tend to have better performance of entrepreneurship (IMF staff, 2015).

Research conducted by the University of Szczecin, Poland, and published by Perspectives of Innovations, Economics, and Business, highlights that the application of advanced technologies in small and medium sized enterprises allows them to gain a competitive advantage in the market (Aneta, 2011).

2.5.1 Competitiveness Relationship with Economy as a Key Driver of Entrepreneurship

An in-depth analysis of a literature review has been conducted through the historical performance of GDP per capita and its relationship with GCI in 109 countries between 2006-2015. The countries are high income, mainly European and North American countries. Low income, lower middle income, and upper middle income countries were also part of the review (World Economic Forum 2016 and World Bank 2016). The literature review was conducted using two methods. First, all 1090 observations have been reviewed, independent of the economic level of the markets. The second step was disaggregation of economies into four categories as per the classification of each country's economy by the World Bank: high income, low income, lower middle income, and upper middle income (World Bank, 2020). Through a linear regression test, the regression outputs indicate a correlation of 0.75, which is semi strong, an R square of 0.57, a t-stat of 38.38, and a p-value of 0.0000. Given the regression outputs, there is a statistically significant dependency between the GCI as the independent variable and GDP

per capita as the dependent variable. It has a coefficient determination of 23,696. That means, when GCI moves by 1, GDP per capita moves by 23,696. Further regression outputs including the plots are available in Figure 2.20a.

As far as the second method with disaggregation of the economies is concerned, there are 100 observations in low income countries. The total number of low-income countries is 10 between 2006-2016. The countries are *Burundi*, *Chad, Ethiopia, Gambia, Madagascar, Mali, Mozambique, Nepal, Tanzania, and Uganda*. There is a correlation of 0.55, which is moderate, an R square of 0.30, a t-stat of 6.60, and a p-value of 0.00000. Given the regression outputs, there is a statistically significant dependency between the independent variable "GCI" and the dependent variable "GDP per capita". They have a coefficient determination of 1090. That means, when GCI moves by 1, the GDP per capita moves by 1090. As plotted in Figure 2.21, Burundi has the lowest GCI score and GDP per capita. Gambia has the highest GCI score and GDP per capita on the list, followed by Tanzania, Nepal, Uganda, and Ethiopia (World Economic Forum 2016 and World Bank 2016).

The pattern has been found to be a bit different in the lower middle income category. There were 23 countries *(Bangladesh, Bolivia, Cambodia, Cameroon, Egypt, El Salvador, Honduras, India, Indonesia, Kenya, Kyrgyz Republic, Lesotho, Mauritania, Mongolia, Morocco, Nicaragua, Nigeria, Pakistan, Philippines, Ukraine, Vietnam, Zambia, and Zimbabwe)* with 230 observations between 2006-2016. It shows a correlation of 0.53, an R square of 0.28, a t-stat of 9.50, a p-value of 0.0000. Given the regression outputs, there is a statistically significant dependency between the independent variable "GCI" and the dependent variable "GDP per capita". The variables have a coefficient determination of 3,627.416. GCI and GDP per capita of lower middle-income countries (23 countries) as plotted in Figure 2.22 indicates that Zimbabwe has the lowst GCI and GDP per capita, followed by Mauritania, Lesotho, Zambia, etc. Indonesia has the highest score of GCI and GDP per capita followed by Ukraine, Egypt, Mongolia, etc. (World Economic Forum, 2016, World Bank 2016).

The upper middle income category consists of 30 countries *(Albania, Algeria, Argentina, Armenia, Azerbaijan, Botswana, Brazil, Bulgaria, China, Colombia, Costa Rica, Dominican Republic, Georgia, Guatemala, Guyana, Jamaica, Jordan, Kazakhstan, Malaysia, Mauritius, Mexico, Namibia, Paraguay, Peru, Romania, Russian Federation, South Africa, Sri Lanka, Thailand, and Turkey)* and 300 observations indicate that GCI and the GDP per capita have a correlation of 0.52, an R square of 0.27, a t-stat of 10.67, and a p-value of 0.0000. Given the regression outputs, there is a statistically significant dependency between the independent variable "GCI" and the dependent variable "GDP per capita". The coefficient determination is 7561.574. That means, if GCI moves by 1, the GDP per capita moves by 7561.574 (World Economic Forum 2016 and World Bank 2016). As shown in Figure 2.23, the country with the lowest score of GCI and GDP per capita on the list is Guyana, followed by Paraguay, Guatemala, etc. The best country is Malaysia. China has a better GCI score after Malaysia but not a better GDP per capita than the rest of the countries on the list with lower GCI. Thailand has a slightly lower GCI score than China, but higher GDP per capita. However, Thailand's GCI is better than the rest of the countries

on the list. Russia's GCI score is between 4 -4.5, and a higher GDP per capita than most of the countries on the list.

And finally, the last category, "high income countries," suggests that there is a correlation of 0.46, an R square of 0.22, a t-stat of 11.37, and a p-value of 0.00000. Given the regression outputs, there is a statistical dependency between the independent variable "GCI" and the dependent variable "GDP per capita". A variation in the dependent variable is explained with the independent variable by 22.03%. There is a coefficient determination of 18835. That means, when GCI moves by 1, GDP per capita moves by 18835 (World Economic Forum 2016 and World Bank 2016). As plotted in Figure 2.24, the best performing country both on GCI and GDP per capita is Singapore, followed by Switzerland, the USA, Qatar, Norway, etc. And the worst performing country both in GCI and GDP per capita is Uruguay, followed by Greece, Panama, Trinidad and Tobago, etc.

Description of Variables	Corre-lation	R Square	T-stat	P-value	Co-effi-cient. D
High Income, 460 Observations, 46 countries Model: GDP per Capita~GCI	0.46	0.22	11.37	0.00000	18834.97
Upper Middle Income, 300 observations, 30 countries, Model: GDP per capita~GCI	0.52	0.27	10.67	0.00000	7561.57
Lower Middle Income, 230 observations, 23 countries, Model: GDP per capita~GCI	0.53	0.28	9.50	0.00000	3627.41
Low Income, 100 observations, 10 countries, Model: GDP per capita~GCI	0.55	0.30	6.60	0.00000	1029.29

Figure 2.20b: Relationship of Competitiveness and GDP per Capita

Source: (World Economic Forum, 2016, World Bank 2016), analysed by the author

Given the summary of the literature review on the relationship of competitiveness on GDP per capita, it has a stronger R square in low income countries, followed by middle income, upper middle income, and eventually high income. Observations, though, are not the same in the model.

With the review of foreign direct investment net inflows in 14 countries in the ten years between 2006 and 2015 *(Australia, Belgium, Denmark, Finland, France, Germany, Iceland, Italy, Japan, Netherlands, Norway, Sweden, U.S.A, and Federation of Russia),* there is a relationship found between GCI and foreign direct investment net inflows which is considered a key driver of entrepreneurship, given the fact that foreign direct investment adds values to the nations' value chain. There is a correlation of 0.25, an R square of 0.062, a t-stat of 3.04, and a p-value of 0. 0.0029. Given the regression outputs, there is statistical dependency between the GCI and Foreign Direct Investment net inflows. The coefficient determination is 68,708,728,209.07. That means, when GCI moves by 1, the FDI net inflows moves by 68,708,728,209.0682. Overall, there is a linear relationship between the FDI net inflows and GCI, as plotted in Figure 2.34a (World Economic Forum 2016 and OECD, 2020b). However, using the same data

period and variables but for seven countries (Iceland, Italy, Japan, Netherlands, Norway, Sweden, and the USA), the linear relationship is stronger. There is a correlation of 0.40, an R square of 0.16, a t-stat of 3.56, and a p-value of 0.000692. Given the regression outputs, there is a dependency between the variables. The coefficient determination is 142,445,082,282.488. That means, when the GCI moves by 1, the FDI net inflows moves by 142,445,082,282.488. As plotted in Figure 2.34b, there is a linear relationship between the GCI and FDI net inflows found based on the historical performance in seven countries. U.S.A and the Netherlands are the best performing countries on the list.

2.5.2 Relationship of Competitiveness with Entrepreneurship

Given the importance of the topic, several markets from different dimensions were reviewed to learn the relationship. Key indicators including enterprise death rate, number of active enterprises, number of enterprise births, number of enterprise deaths, and bankruptcy were reviewed and analysed. The first dimension has been the review of competitiveness, birth and death rate of employer enterprise through a time series method in (*Austria, Czech Republic, Estonia, France, Hungary, Italy, Japan, Latvia, Lithuania, Luxembourg, the Netherlands, Portugal, Slovenia, Spain, and Romania).* To make this easy for non-experts of business to read, OECD defines "employer enterprises" as those enterprises that have at least one employee. Death and Birth rates are calculated by $Death\ rate = \frac{Number\ of\ enterprise\ death}{Population\ of\ Active\ Enterprise}$ $and\ Birth\ Rate = \frac{Number\ of\ enterprise\ birth}{Population\ of\ Active\ Enterprise}$ (OECD, 2012). To make it easy to read for everyone, annual growth is calculated $Compound\ annual\ growth = \left(\frac{Ending\ Balance}{Beginning\ Balance}\right)^{1/n} - 1$. To elaborate, the ending balance is defined as the death rate at the end of a period. In this context, we might look at the the birth/death rate of Hungary in the year 2017. The beginning balance is the beginning period. In this context, the year 2008 is considered beginning balance. N is the number of years in which to calculate the growth. In this context, 1/6 because between 2012/2017, there are six years. That means the total period is six years (Investopedia, 2019).

Death Rate: As graphed in Figure 2.25, Hungary has the highest death rate between 2012-2017 with an average of 18.80%, min of 11%, and max of 48.8 which is considered alarming, and with a standard deviation of 14.81%. Hungary has had a 21.73% annual growth of the enterprise death rate. That means, every year, the death rate has been increasing in Hungary by 21.73% over six years (2012-2017). The country is considered the most vulnerable country on the list where the death rate of the enterprise is the highest. Based on Estonia's annual growth of enterprise death rate, it ranks second. Between 2012-2017, it has an average growth of the death rate of 10.37% and an annual growth rate of 4.43%. And France ranks 3 in the same period with an average death rate of 10.58% and an annual growth rate of 0.49% on the list (OECD Stat, 2020). Countries such as Czech Republic (-1.72%), Italy, (-3.73%), Japan (1.84%), Latvia (7.84%), Lithuania (-4.25%), Netherlands (-2.9%), Portugal (-9.59%), Slovenia (0.94%), Spain (-3.96%), and Romania (-2.82%) have reduced the death rate based on the respective annual reduction, with Portugal being the best performing country in the reduction of death rate followed by Latvia and Lithuania. Austria had no progress on the reduction of birth rate. It has been constant with an average of 8.02%.

Birth Rate: On average, Hungary has the highest birth rate of enterprises the same as its death rates between 2012-2017. Th birth rate is 15% on average. It has an average growth of 2.79%. Estonia has the second highest average birth rate of 12.93%. Its annual growth is 13.28%. The following countries have had an annual decrease in birth rates of enterprises: Austria (-0.39%), Czech Republic (-2.85%), Italy (-0.53%), Latvia (-6.04%), Luxembourg (-1.21%), Slovenia (-1.48%), and Spain (-0.58%). However, the following countries have had annual growth in birth rates: France (0.15%), Hungary (2.79%), Japan (3.09%), the Netherlands (1.52%), Portugal (3.26%), and Romania (4.72%).

GCI, Birth and Death Rate: In a deeper review and analysis of the relationship of competitiveness on entrepreneurship in 17 countries *(Austria, Canada, Czech Republic, Estonia, France, Hungary, Italy, Japan, Latvia, Lithuania, Luxembourg, the Netherlands, New Zealand, Portugal, Slovenia, Spain, and Romania)* with 168 observations between 2008-2017, using GCI as the independent variable and death rate as the dependent variable, the findings suggest that there is a correlation of -0.27, an R square of 0.07, t-stat of -3.72, and a p-value of 0.00027. Given the regression outputs, it is considered significant. There is a statistically significant dependency between the variables. A variation or movement in the death rate is explained 7.70% by the GCI. There is a coefficient determination of -2.756. That means when GCI increases by 1, the death rate decreases by -2.756 (World Bank, 2017, and OECD Stat 2020). However, if the GCI as an independent variable is regressed against the dependent variable birth rate, surprisingly the relationship is found to be stronger. There is a correlation of -0.33, an R square of 0.1073, a t-stat of -4.46, and a p-value of 0.000015. This is considered statistically significant. A variation in birth rate is explained 10.73% by the GCI. The coefficient determination is -2.089. If GCI moves by 1, the birth rate decreases by -2.089. The coefficient determination is weaker than the above. More surprisingly, the death rate and birth rate of enterprises have a correlation of +0.46. Using the death rate as the independent variable and birth rate as the dependent variable, there is an R square of 0.20, a t-stat of 6.46, a p-value of 0.0000, and a coefficient determination of 0.288. Vice versa, the death rate~birth rate, the R square, and t-stat are the same, except the coefficient determination which is 0.698. That means, when the death rate moves by 1, the birth rate moves by 0.698. However, in the case of death rate~birth rate model, when the birth rate moves by 1, the death rate moves by 0.288. To make it easier to understand, the influence of birth rate over the death rate is less than the influence of the death rate over the birth rate (OECD, 2020a).

Description of Variables (17 countries, 168 observations 2008-2017)	Correlation	R Square	T-stat	P-value	Coefficient.D
Model: Death rate of Enterprises ~ GCI	-0.27	0.07	-3.72	0.0002	-2.756
Model: Birth rate of enterprises ~ GCI	-0.33	0.1073	-4.46	0.0000	-2.089
Model: Birth rate of enterprise ~ death rate	+0.46	0.20	6.46	0.0000	0.288
Model: death rate of enterprise ~ birth rate	+0.46	0.20	6.46	0.0000	0.698

Figure 2.25s: Four Models on Relationship of Enterprise Death/Birth Rates with Competitiveness

Source: OECD, 2020a and World Economic Forum, analysed by author.

Using the data set from OECD (OECD, 2020a), it has been analysed by the author using $Compound\ annual\ growth = \left(\frac{Ending\ Balance}{Beginning\ Balance}\right)^{1/n} - 1$. Based on the historical performance of some of the OECD region in the number of death and birth of enterprises, active population of enterprises, and GCI as illustrated in Figure 2.28, Bulgaria has the highest annual growth on GCI between 2008-2017 (1.02%) among 25 countries *(Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and Switzerland).* Luxembourg was ranked two, followed by Poland. On the number of births of enterprise, Czech Republic ranks 1 (11.45%) in annual growth ranking, followed by Cyprus (11.19%). (Cyprus annual growth is based on an eight-year period, 2010-2017), and Ireland (0.37%). Given the ranking of Cyprus in annual growth of the number of births of enterprises, the country ranks 1 in the death of enterprises. It has an annual growth of 5% based on an eight-year period 2010-2017. Bulgaria, with an annual growth of 4.21% ranks 3 followed by Slovakia at 3.09% (OECD Stat, 2020). On the active population of enterprises, Latvia ranks 1 with an annual growth of 3.94%, followed by Lithuania (3.82%), and Romania (3.65%).

Putting the historical data of 25 countries together, in particular, the variables on "number of enterprises birth, death, and active population" between 2008-2017 *(Countries: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom)*, an interesting pattern can be seen (OECD Stat, 2020). As graphed in Figure 2.29a, the strength of the relationship between GCI as the independent variable and number of active enterprises as the dependent variable through R square is 0.00731. It has a correlation of 0.0855, a t-stat of 1.33, and a p-value of 0.18 which is not significant. In a similar effort with the same sample size, period, countries, but different response variable "number of deaths of enterprises", the relationship is shown as almost nonexistent, as illustrated in Figure 2.29b likewise with "active population of enterprises" as the dependent variable, as plotted in Figure 2.29c, it shows no relationship with GCI.

It gets more interesting when a strong relationship is found between the number of birth of enterprises and the number of death of enterprises in the same countries, sample size, and period. This has a correlation of 0.92 which is strong, an R square of 0.8561, a t-stat of 38.027, and a p-value of 0.0000 as plotted in Figure 2.29d. Given the regression outputs, there is a statistically significant dependency between the variables. The coefficient determination is 1.047. That means, when the number of death of enterprises grows by 1, the number of birth of enterprises increases by 1.047. If the number of deaths of enterprises is used as a dependent variable and number of births of enterprise with the same sample size, countries, and period, the regression outputs, mainly the correlation and R square remain the same, but the coefficient determination differs (0.8178). That means, when the number of births of enterprises moves by 1, the number of death of enterprises moves by 0.8178. To make it easy to read, the influence of the number of births of enterprises over the number of deaths of enterprises is less than the influence of the number of deaths of enterprises over the number of births of enterprises. Figure 2.29f summarizes five regression models on relationship GCI with the number of births and

deaths of enterprises, and the number of births of enterprises with the number of deaths of enterprises (OECD, 2020a).

Through disaggregation of 16 countries or markets over a period of ten years' performance, 2008-2017 *(Bulgaria, Cyprus, Czech Republic, Estonia, France, Germany, Italy, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and the United Kingdom)* in reviewing in-depth and learning the relationship of GCI, number of enterprise deaths and births, and active population of enterprises, it was found that they have a linear relationship, as follows.

With 157 observations in 16 countries using GCI as the independent variable and number of births of enterprises as the dependent variable as plotted in Figure 2.30a, there is a correlation of 0.60, an R square of 0.36, a t-stat of 9.437, and a p-value of 0.0000. Given the regression outputs, there is a statistically significant dependency between the variables. The coefficient determination is 176893. To interpret the R square, when the number of the births of enterprises moves, it is explained 36% by the GCI. To interpret the coefficient determination, when the GCI moves by 1, the number of births of enterprises moves by 17,6893. As plotted in Figure 2.30a, the UK has both the highest GCI in most of its events as well as the number of birth of enterprises. Germany has a higher GCI than the UK, but a lower number of births of enterprises. France has a lower GCI than the UK and Germany, but an almost equal number of births of enterprises as the UK and higher than Germany and the rest of the countries on the list. Spain has both the highest GCI and number of births of enterprises in most of the events than the rest of the countries on the list except the UK, France, and Germany. Italy follows Spain and Poland. Slovenia, Cyprus, and Latvia are the countries that have both the least GCI and number of enterprises on the list.

Using GCI as the independent variable and number of deaths of enterprises as the dependent variable with the sample countries and number of observations as above, there is a correlation of 0.51 between the variables, an R square of 0.26, a t-stat of 7.43, and a p-value of 0.0000. Given the regression outputs, it is significant. A variation in the number of deaths of enterprises is explained 26% by the movement of GCI. The coefficient determination is 13,1879.18. That means, when GCI moves by 1, the number of deaths of enterprises moves by 13,1879.18. As plotted in Figure 2.30b, while the UK has a GCI between 5.189 – 5.50, one of the highest on the list, some of its events have a high number of deaths of the enterprises. For example, in one event when its GCI has been the highest as 5.5068, it had 316,000 number of deaths of enterprises. Germany also has both one of the highest GCIs and number of deaths of enterprises. In fact, Germany has the highest GCI on the list and one of the countries with the highest number on the number of death of enterprises. France has the third highest GCI after the UK and Germany, but its number of deaths of enterprises is lower than Spain, Italy, and Poland. These three countries (Spain, Italy, and Poland) have 200,000 to 300,000 deaths of enterprises. Likewise, while Slovenia, Latvia, and Cyprus have the lowest GCI, they also have the lowest number of deaths of enterprises.

Using GCI as the independent variable and active population of enterprises in the same countries and time period, and the number of observations, there is a correlation of 0.54, an R square of 0.29, a t-stat of 26.81, and a p-value of 0.0000. Given the regression outputs, it is statistically significant. The coefficient determination is 1,783,780.21. *GCI has more influence over the active population of enterprise on the list versus other dependent variables as summarized in the table below and plotted in Figure 2.30c.* Countries including the UK, Germany, and France have both the highest GCI and active population of enterprises versus the rest of the countries on the list. Italy is the country with the highest number of active numbers of the population of enterprises, even higher than the UK, Germany, and France. However, Italy's GCI is lower than the mentioned countries. Spain has a higher number of active enterprises than Germany and the UK, but Spain's GCI is lower than the mentioned countries. Lithuania, Latvia, Slovenia, and Estonia have a higher GCI than Italy and Spain, but the lowest active number of enterprises. But *overall there is a linear relationship between the variables. That means, when GCI is high, the active population of enterprises is also high.*

Interestingly, both the number of deaths of enterprises and the births of enterprises have a stronger relationship than the GCI. Using the number of deaths of enterprises as the independent variable and number of births of enterprises as the dependent variable, as plotted in Figure 2.30d, there is a correlation of 0.90 which is strong. The R square is 0.82. The t-stat is 26.81, and the p-value is 0.0000. Given the regression outputs, it is considered statistically significant. The coefficient determination is 1.03. However, using births of enterprises as the independent variable and deaths of enterprises as the dependent variable as plotted in Figure 2.30e, the regression outputs are the same and considered statistically significant. However, the coefficient determination is 0.79. Italy has the highest number of deaths and births, followed by Spain, and the UK. To cluster some countries, Germany, Poland, France, Spain, Italy, and the UK have the highest number of death and births than the rest of the countries on the list. Overall, there is a linear relationship between the number of deaths and births of enterprises.

Description of Variables (16 countries, 157 observations 2008-2017)	Corre-lation	R Square	T-stat	P-value	Coeffi-cient.D
Model: # of Birth of enterprises ~ GCI	0.60	0.36	9.43	0.0000	176,893.84
Model: # of Death of enterprises ~ GCI	0.51	0.26	7.43	0.0000	131,879.18
Model: Active Population of Enterprises ~ GCI	0.54	0.29	8.10	0.0000	1,783,780.21
Model: # of Birth of Enterprises ~ # of Death	0.90	0.82	26.81	0.0000	1.032
Model: # of Death of Enterprises ~ # of Birth	0.90	0.82	26.81	0.0000	0.796

Furthermore, the relationship of competitiveness against several entrepreneurship indicators, namely the number of entries of corporations (13 countries), new business registrations (92 countries), the bankruptcy of enterprises (12 countries) has been reviewed and analysed (World Economic Forum 2016 and OECD, 2020b). Through a linear regression using GCI as the independent variable and the indexed number of entries of enterprises (corporations only) as the dependent variable in 13 countries *(Australia, Belgium, Canada, France, Germany, Italy, the Netherlands, New Zealand, Norway, Portugal,*

Spain, Sweden, and the UK) between 2006-2017 with 156 observations, the findings suggest that there is a correlation of 0.34, an R square of 0.11, a t-stat of 4.47, and a p-value of 0.000015 which shows statistical dependency of the variables. To make it easier for non-business people to read, the index is calculated as: index = $\frac{New\ Number}{Original\ Number} * 100$. Index measures changes based on the equation (Investopedia, 2019). Sweden and the UK, having the highest GCI, also have a high positive indexed number of corporations. Belgium, Australia, and France also have a positive indexed number of corporations, but they have a lower GCI than Sweden and the UK. Portugal also has a positive indexed number of corporations. Otherwise, the rest of the countries have a negative indexed number of corporations. Overall, there is a linear relationship between the variables, as plotted in Figure 2.31 (OECD, 2020b).

As far as the relationship of competitiveness to new business registration (NBR) is concerned, 92 countries' ten year (2006-2015) performance was reviewed from different continents and economies: high income, low income, lower middle income, and upper middle income. New business registration is the World Bank's indicator defined as "new business registration, which is limited liability corporations in the calendar year" (World Bank, 2019). Using the GCI as the independent variable and new business registration as the dependent variable using the linear regression, there is a correlation of 0.24 which is weak, an R square of 0.0623, a t-stat of 7.55, and a p-value of 0.0000. There is statistical dependency between the variables as plotted in Figure 2.32a. The coefficient determination of 31,437.50. The relationship is linear at the strength of R square and regression outputs.

Using the same period and variables, but with disaggregation of 42 high income countries *(Australia, Austria, Bahrain, Belgium, Chile, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hongkong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea Republic, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Panama, Poland, Portugal, Qatar, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, UAE, UK, and Uruguay)*, the correlation is 0.281, R square is 0.079, the t-stat is 5.98, and the p-value is 0.000 with the coefficient determination of 46,569.08. The relationship is also linear here as plotted in Figure 2.32b. However, using the same period and the variables for five low income countries *(Chad, Ethiopia, Madagascar, Nepal, and Uganda)*, there is a correlation of 0.70, an R square of 0.49, a t-stat of 4.60, a p-value of 0.00013 which are considered statistically significant. The coefficient determination is 12871.9. Obviously, there was limited data available in low income countries. But the relationship is linear, as plotted in Figure 2.32c.

Using the variables in the same period in 16 lower middle income countries *(Bangladesh, Bolivia, Cambodia, El Salvador, India, Indonesia, Kenya, Kyrgyz Republic, Lesotho, Mongolia, Morocco, Nigeria, Pakistan, Philippines, Ukraine, and Zambia)* shows a different pattern through stronger relationship than high income except the low income countries given the limited data. There is a correlation of 0.49, an R square of 0.24, a t-stat of 6.98, and a p-value of 0.0000. Given the regression outputs, there is statistical dependency between the variables. As plotted in Figure 2.32d, there is a linear relationship between the variables. The coefficient determination is 36,762.17.

In 28 upper middle income countries *(Albania, Algeria, Argentina, Armenia, Azerbaijan, Botswana, Brazil, Bulgaria, Colombia, Costa Rica, Dominican Republic, Georgia, Guatemala, Jamaica, Jordan, Kazakhstan, Malaysia, Mauritius, Mexico, Namibia, Paraguay, Peru, Romania, Russian Federation, South Africa, Sri Lanka, Thailand, and Turkey)* using the same variables and period, there is a correlation of 0.27, an R square of 0.073, a t-stat of 4.62, and a p-value of 0.0000. Given the regression outputs, there is a statistically significant dependency between the variables. The coefficient determination is 78,225.21, as plotted in Figure 2.32e. There is a linear relationship between the variables.

Reviewing the relationship of GCI with business bankruptcy in 12 high income countries *(Belgium, Denmark, Finland, France, Germany, Iceland, Italy, the Netherlands, New Zealand, Norway, Spain, and Sweden)*, between 2006-2017, using GCI as the independent variable and business bankruptcy as the dependent variable, it has been found that there is a relationship between the variables. There is a correlation of -0.49, an R square of 0.24, a t-stat of -6.49, and a p-value of 0.0000. Given the regression outputs, there is statistical dependency between the variables. The coefficient determination is -155.36. As plotted in Figure 2.33, there is a linear relationship between them. Detailed regression outputs are available in Figure 2.33.

Description of Variables	Corr	R^2	T-stat	P-value	Coefficient.D
92 Countries Model: New Business Registration (NBR) ~ GCI, N = 861, 2006-2015	0.249	0.061	7.55	0.0000	31437.5
42 high income countries, Model: NBR ~ GCI, N=417, 2006-2015	0.281	0.079	5.98	0.0000	46569.08
5 low income countries, Model: NBR ~ GCI, N=24, 2006-2015	0.70	0.49	4.60	0.00013	12871.9
16 lower middle-income countries, Model: NBR ~ GCI, N=149, 2006-2015	0.49	0.24	6.98	0.0000	36762.17
28 upper middle-income countries, Model: NBR ~ GCI, N= 271, 2006-2015	0.27	0.073	4.62	0.0000	78225.21

Figure 2.32f: Relationship of GCI with New Business Registration

Source: World Bank, 2019 and World Economic Forum, 2016 analysed by the author.

2.6   Corruption Perception Index

Transparency International (TI) defines corruption as "the abuse of entrusted power for private gain". Corruption is associated with the destruction of lives, society, freedom, health, or money. TI categorizes corruption costs in four areas: political, economic, social, and environmental. The political costs of corruption are associated with losing the legitimacy of governments and public institutions. Economically, corruption destroys national wealth. Politicians tend to focus on projects that serve their personal interests rather public interests. Corruption is perceived to be a critical obstacle to the development of fair market structures and competition. In brief, corruption is considered a detrimental

phenomenon in every aspect of human life. Transparency International (TI) suggests that the government must strengthen checks and balances, limit the influence of big money in politics, and ensure broad input in political decision-making. Public resources should not be misused, and fair allocation of budgets must be maintained with impartiality in consultation with the citizens. TI recommends that restoring trust in politics, prevention of political corruption, and fostering the integrity of the political system are key to eradicating corruption. This includes managing conflicts of interest through the reduction of risk by controlling financial and other illegitimate interests of public officials. Another critical theme is controlling political financing. This means political parties are required to disclose the sources of their financing, income, and assets, while governments should empower oversight agencies with appropriate mandates to prevent bad behavior. In addition, TI underlines the importance of strengthening electoral integrity, regulating lobbying activities, tackling preferential treatment, citizen empowerment, and reinforcing checks and balances (Transparency International, 2019b).

The United Nations claims that the cost of corruption economically has been $2.6 trillion or 5% of the global GDP annually (United Nations, 2018). The IMF claims that those countries that curb corruption increase their fiscal yields. Governments can increase their revenues 4% of GDP compared to countries at the same economic level with a high level of corruption (IMF, 2019). An article titled "Corruption's asymmetric impacts on firm innovation" researched the impacts of corruption on smaller and larger sized firms' adoption of quality certificate and patents. The research argues to have used firm level data for 48 countries and emerging countries. The findings suggest that corruption reduces the likelihood that firms in the targeting countries get quality certificates. The research indicates that corruption affects smaller firms, but no impacts on exports or publicly traded companies. In addition, corruption reduces investment in machinery for innovation (Paunov, 2015).

In the discussion and findings, the impact of corruption over the performance of entrepreneurship in Afghanistan will be discussed in detail.

2.7   Peace

The economic impact of violence around the world has been recorded at USD 14.1 trillion in purchasing power parity terms in 2019. According to the Global Peace Index (GPI), violence has a significant impact on economic performance around the world. The average economic cost of violence has been recorded at 35% of GDP. However, violence cost Syria, Afghanistan, and the Central African Republic between 42 – 67% of their GDPs in 2019. Violence makes countries focus their spending on their military rather than other aspects of development, welfare, productivity, and economic growth. In fact, GPI measures the economic impact of violence by eighteen variables in three categories: 1) security services and prevention-oriented costs, 2) armed conflict related costs, and 3) interpersonal and self-inflicted violence. GPI emphasizes the economic multiplier of the violence. In other words, in addition to the direct costs of violence, indirect costs include the hindrance of economic activity . Expenditures to reduce violence are economically efficient when it prevents violence. However, if the expenditure goes beyond the optimal level, there is great potential to have economic growth hindered. Therefore, using

an effective and efficient way of public expenditure on the military, judiciary, and security is critical. (Institute for Economics and Peace, 2019).

The GPI, quoting Bauer and Tepper Marin, highlights that violence and the fear of violence may result in some economic activities not happening at all. It hinders business growth, incentives, and opportunities. Violence has a negative influence on the business environment and this will discourage investors from investing. A survey conducted in Colombia suggests that in times of violence, businesses are less likely to survive, as economic growth, employment, and productivity will be affected (Institute for Economics and Peace, 2019). The Positive Peace Index (PPI) consists of eight pillars, including a well-functioning government, a sound business environment, and high levels of human capital. A well-functioning government delivers quality services to its citizens, improves trust, encourages public participation, ensures stability, and provides the rule of law. A sound business environment is the strength of economic conditions from which the private sector or entrepreneurship benefits. A sound business environment ensures productivity that is conducive to entrepreneurship. And high-level human capital is the workforce whose productivity yield increases (Institute for Economics and Peace, 2019). Positive peace is associated with economic development, in particular GDP. During the absence of violence, there will be economic development and GDP growth, household consumption will increase, and entrepreneurship will be strengthened. Businesses will grow, and production will be competitive. The publication argues the relationship of well-functioning government, low levels of corruption, free flow of information, sound business environment, and overall PPI to economic outputs. In a peaceful environment, household consumption will increase, which contributes to economic growth and entrepreneurial activities. In a peaceful environment, businesses will be competitive and will produce goods and services demanded by households. Given entrepreneurial activity in a peaceful environment, the literature argues a relationship between peace, production, employment, economic growth, and innovations. A sound business environment and well-functioning institutions will facilitate and encourage investment, trade, and sound government (Institute for Economics and Peace, 2019).

2.8 Afghanistan Economy

Afghanistan is a mountainous country. It borders Uzbekistan to the north, Tajikistan and China to the northeast, Turkmenistan to the northwest, Pakistan to the east and south, and Iran to the west. Based on the World Bank's record, it has a population of 37.172 million and is considered fourth most populated country among its neighbours after China, Iran, and Pakistan, but ahead of Uzbekistan, Tajikistan, and Turkmenistan. Between 2000-2018, Afghanistan has had an annual population growth of 3.11%, ranking first compared to its neighbours Pakistan (2.12%), Tajikistan (2.03%), Uzbekistan (1.54%), Turkmenistan (1.37%), and China (0.52%). In terms of economic recovery, given the country has been at war for decades, it had to restart again not long ago, in late 2001 or 2002 (World Bank, 2020c). Between 2002-2018, Afghanistan's GDP has had annual growth of 9.63%, just ahead of Pakistan (9.03%). The country's GDP's annual growth between 2002-2017 has been recorded at 10.55%, ahead of Iran (8.20%) and Pakistan (9.40%), but behind Tajikistan (11.69%), Turkmenistan (14.31%), Uzbekistan (11.97%), and China (14.10%). Despite the country's history, it has been trying to recover from the

aftershock of the severe war in the country. Between 2003-2018, its GDP had average growth of 6.83%, ahead of Pakistan (4.63%). The country's lowest growth has been recorded at 0.43% in 2011. The highest growth was 21.39% in 2009 during the global financial crisis (World Bank, 2020c).

Afghanistan is an agricultural country. According to World Development Indicators, it had an average of 3.950 billion, a maximum of 4.7 billion, and a minimum of 2.8 billion USD value added on the economy in its agriculture, forestry, and fishing industries between 2002-2018. The agricultural output contribution to the economy is above the agricultural value added of Tajikistan in absolute dollar amount, but lower than the rest of its neighbours. There is not accurate data for Turkmenistan and Iran. The seventeen-year annual growth in agricultural output of Afghanistan is 1.41% which is the lowest among its neighbours Tajikistan (6.34%), Uzbekistan (5.26%), China (3.90%), and Pakistan (2.78%).

According to World Development Indicators, Afghanistan averaged 179.36 million USD on its current account between 1979-1989. In other words, imports exceeded exports by 179.36 million USD on average in that period. Except for that period, the rest of the periods, the country has had a negative current account. The average 11-year annual growth on a negative current account has been recorded at 3.36%. Pakistan's annual growth on its negative current account has been recorded at 1.70%. However, Iran managed to reduce its negative current account with an annual decrease of -168.65%. It managed to increase export at the annual growth of 168.65% annually. Afghanistan's next 11 years between 2008-2018 has recorded its current account at -2.93 billion USD on average. Over 11 years, it has had an annual growth of 33.60% negative current account. That means, the imports have grown up 33.60% than exports annually. Pakistan's negative current account has had an annual growth of 1.87% between 2008-2018. China had a positive current account of 420.57 billion USD in 2008 and a current account of 49.10 billion in 2018. That means, annually there has been a reduction of 17.74%. Though, China still has a positive current account of 40.10 billion USD. This also means that China has increased imports versus exports. As far as Tajikistan is concerned, similar to China it has a negative current account of -378.48 million in 2018 while it was -1.058 billion in 2008. This means Tajikistan increased its exports trying to reduce balancing the negative current account at the rate of 8.93% annually (World Bank, 2019b).

On foreign direct investment net inflows (FDI INF), between 1970-1979, Afghanistan made an annual growth of 18% versus Iran 19.4%, and Pakistan 9.7%. Between 2000-2018, Afghanistan has averaged 100.77 million USD FDI INF. The nineteen-year annual growth of FDI INF has been recorded at 41.20% as the highest among its neighbours: Iran (26.67%), Turkmenistan (15.38%), Tajikistan (12.50%), Uzbekistan (11.83%), Pakistan (11.30%), and even China (8.65%). As far as the foreign direct investment net outflow (FDI NOF) is concerned, Afghanistan had an annual growth of 231% over 11 years. Its FDI NOF was recorded at -1.92 million USD in 2008 increased to 38.81 million in 2018.

Based on the economic fitness of Afghanistan from 1995 – 2015, the country has been trying to hold a competitive position through producing outputs. In 1995, the country ranked 99, better than Iran (122), Tajikistan (101), Turkmenistan (121), and Uzbekistan (120), but lower than Pakistan (62), and

China (13). While China is unbeatable not only among its neighbours, but globally, Afghanistan has had a vulnerable ranking given that the country has been at war. Still, the country endeavoured to compete for a better ranking among its neighbours. For example, in 1996, the country ranked 106, better than Iran and Turkmenistan. In 1997, Afghanistan ranked 81, better than Iran (83), Tajikistan (95), Turkmenistan (121), and Uzbekistan (84). In 2015, the country ranked 112, lower than Iran (96), Pakistan (40), and Uzbekistan, however higher than Tajikistan (119) and Turkmenistan (132). Afghanistan's position has declined from 67 in 2009 to 112 in 2015 (World Bank, 2020d).

Afghanistan is considered an agricultural country. However, the share of agriculture, forestry, and fishing, value added (% of GDP) has been decreasing. Between 2002-2017, though, it has an average of 25% share in the GDP, but it has shown a decrease of -3.67% annually. Except for Turkmenistan, for whom there is no data in 2017, Afghanistan has had the largest annual decrease in this period. China, its neighbour, had an annual decrease of -3.26%, Tajikistan (-0.27%), and Uzbekistan (-0.01%). However, Iran (1.15%) and Pakistan (0.31%) achieved annual growth in this area (World Bank, 2020c).

Industry in Afghanistan, including construction, value added (annual growth) has been trending down from 10.26% in 2003 to 1.44% in 2018. The country's neighbors performance varies. For example, China has also trended down from 12.67% in 2003 to 5.83% in 2018, but not in the same pattern as Afghanistan. Pakistan has slightly improved from 4.24% in 2003 to 4.93% in 2018. Tajikistan also slightly trended up from 9.89% to 10.37%. Uzbekistan has better performance from 3.17% in 2003 to 10.39% in 2018. All countries have peaks and troughs. In manufacturing, value added annual growth has been declining, too. It has declined from 3.70% in 2003 to 0.74% in 2017. Average growth has been recorded at 2.81% in the reporting period. Iran's average growth in the same reporting period has been recorded at 4.58% and Pakistan's at 5.73% (World Bank, 2020c).

As graphed in Figure 2.39, Afghanistan has the fourth highest average inflation in comparison to its neighbours between 2002-2019. Its average has been recorded at 8.16. Iran has the highest average inflation of 18.95, followed by Uzbekistan (12.67). Tajikistan (8.86) has lower average inflation than Afghanistan in the reporting period. China has the lowest inflation with an average of 2.41 in the reporting period, followed by Turkmenistan (6.80).

2.9 Afghanistan's Export and Import Overview

As shown in Figure 2.40, Afghanistan's imports and exports of goods and services between 1946 - 1979 were moving in parallel. After 1979 till 1994, there are more imports of goods and services than exports. The exports and imports were moving in parallel again from 1994 -1999. However, from 1999 onwards, the import values in dollar amount have grown exponentially (United Nations Comtrade Database, 2020). Between 1946-1955, Afghanistan has had an average of 58.28 million USD imports while its exports averaged 50.66 million in the same reporting period. Both Iran and China have higher exports and imports on average in terms of dollar amount than Afghanistan in the same reporting period.

Afghanistan's annual growth for imports in the reporting period has been 2.66%. However, the country's annual growth over this period for export has been 2.29%.

From 1956-1965, Afghanistan averaged 92.9 million on imports versus 58.46 million on exports. Imports had an annual growth of 10.15% versus 2.28% annual growth of exports in the same reporting period. China (3.71%), Iran (8.56%), and Pakistan (9.64%) had less annual growth on imports than Afghanistan in the same reporting period. Except for Iran (2.15%), both China (4.50%) and Pakistan (4.50%) had higher annual growth than Afghanistan. From 1966-1975, Afghanistan had average imports of 167.8 million USD, which is much lower than its neighbours China, Iran, and Pakistan. Afghanistan averaged 118.58 million USD on exports in the reporting period which is again quite lower than its mentioned three neighbours. The annual growth for Afghanistan on imports has been 10.58% which is higher than Pakistan (9.14%), but lower than China (12.31%), and Iran (27.23%). The ten-year annual growth for Afghanistan has been recorded at 12.43%, higher than China (11.11%), and Pakistan (5.74%), but lower than Iran (19.78%).

Between 1976-1985, Afghanistan averaged imports of 744.62 million USD versus exports of 539.26 million USD. Both its exports and imports are lower than its three neighbours, Pakistan, China, and Iran. There is no data for the rest of the three neighbours. Afghanistan has had an annual growth of 16.43% on imports, higher than Pakistan (10.45%) and Iran (-1.02%), but lower than China (20.29%). However, the country's export annual growth has been 6.88%, lower than its import in the reporting period. The country's annual growth in exports was higher than Iran (4.08%), but lower than China (14.69%) and Pakistan (8.91%). Between 1986-1995, Afghanistan has averaged 704.97 million USD in imports, which is lower than its three neighbours (China, Iran, and Pakistan) for whom data is available. The country had an annual decline of -28.36% in imports versus -26.33% annual decrease in exports, which is alarming in comparison to its neighbours who enjoyed a better economy than Afghanistan.

Between 1996-2005, Afghanistan averaged 1232.86 million USD in imports versus average exports of 125.031 million USD. The country has had an annual growth of 46.30% during the period, the highest among its neighbours; China (16.86%), Iran (9.42%), Pakistan (7.65%), Tajikistan (5.11%), Turkmenistan (5.38%), and Uzbekistan (-2.50%). The country's annual growth in exports was recorded at 30.14% as the highest among its neighbours; China (17.57%), Iran (9.65%), Pakistan (5.51%), Tajikistan (1.47%), Turkmenistan (6%), and Uzbekistan (0.34%).

Between 2006-2019, Afghanistan has averaged 6,293.14 million USD in imports versus exports amounting to 554.76 million USD on average. The country has higher imports on average in dollar amount than Tajikistan and Turkmenistan but lower than the rest of the neighbours: China, Iran, Pakistan, and Uzbekistan. However, the country's exports are lower than all its neighbours. The fourteen-year annual import growth for Afghanistan has been recorded at 9.69% which is higher than China (9.07%), Iran (-4.79%), Pakistan (3.73%), Tajikistan (3.44%), Turkmenistan (1.47%), but lower than Uzbekistan (12.75%). The fourteen-year annual growth in exports for Afghanistan has been recorded at 6.34% which is higher than Iran (-10.08%), Pakistan (2.45%), Tajikistan (2.82%), Turkmenistan (1.79%),

Uzbekistan (6.22%), but lower than China (7.99%). The details of the annual growth during the mentioned period are graphed in Figure 2.40b-2.40c.

The country's destination of trade (exports and imports) has been across the world on different continents. According to the World Bank, Afghanistan imported goods and services from 104 countries in 2018. The main five partners from which imports came in 2018 were Kazakhstan, Pakistan, Iran, China, and Uzbekistan.Export is different. The five primary export destinations are Pakistan, India, China, Iran, and Turkey. Altogether there were 62 destinations. If the five key export destinations of 2018 are compared with 2008, its five key partners were India, Pakistan, Russian Federation, United Arab Emirates, and Iran. And altogether there were only 34 destinations. However, the five key import destinations in 2008 were China, Pakistan, Japan, Iran, and an unspecified location. Altogether there were 56 partners (World Integrated Trade Solution, 2018). Unfortunately, the country has a high negative balance of trade with its trade partners.

According to the World Bank's development indicators, Afghanistan ranks second among its neighbours (China, Iran, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan) on imports of goods and services as a percentage of its GDP. Between 2002-2017, the country imported an average of 61.23% of goods and services as a percentage of GDP, its lowest value was recorded at 41.73% in 2016, and the highest value was recorded at 74.50% in 2006. Tajikistan is the first country with the highest average imports of goods and services as the percentage to its GDP between 2002-2017, while Turkmenistan ranks 3 (37.89%), Uzbekistan ranks 4 (26.08%), China 5 (23.15%), and Iran 6 (22.25%), and Pakistan ranks 7 (18.63%).

Unfortunately, Afghanistan has fewer exports of goods and services than imports of goods and services in comparison to most of its neighbours. Between 2002-2017, its exports averaged 21.80% to its GDP, ranking the country 6, just ahead of Pakistan (13.0%), but behind Turkmenistan (40.39%), Tajikistan (31.90%), Uzbekistan (29.20%), China (27%), and Iran (25.24%).

As per the World Bank's World Development Indicators on the "export value index" (the year 2000 = 100), Afghanistan's export values increased from 2002 through 2018. Though other countries have higher exports in absolute values, Afghanistan has the highest annual growth and a relatively stable pattern. As graphed in Figure 2.38a and 2.38b, the country's annual growth of 15.25% between 2001-2018 was ahead of all its neighbours: China (13.22%), Uzbekistan (8.22%), Iran (8.14%), Turkmenistan (7.55%), Pakistan (5.32%), and Tajikistan (3.27%). As far as Afghanistan's import value is concerned, its annual growth between 2001-2018 was recorded at 8.53%, ranking the country 5 with the highest annual growth of import values among its peer neighbours. China has the highest annual growth with an annual growth of 12.8%, followed by Uzbekistan (10.62%), Pakistan (10.40%), Tajikistan (8.82%), Iran (6.20%), and Turkmenistan (0.59%). More details are available in Figure 2.38c-2.38d.

Based on the historical performance between 2001-2018, both the values of imports and exports have been increasing in Afghanistan. Since the data is indexed, and the index year is 2000 = 100 as the

measure of change, based on the indexed data, exports increased more than imports between 2003 – 2008; otherwise, they have remained below imports between 2009-2018. Both imports and exports are volatile over the period. In other words, if one period is compared to the other period to measure the percentage of change over time, it is quite volatile. For example, export values increased from 2001 to 2002 by 47.06%, but decreased back to 44% in 2003, and increased to 111.81% and decreased back to 25.90%. Figures 2.38e provides a graphical view of imports and exports.

2.10 Afghanistan Ecosystem

Based on the World Bank Doing Business Report 2020, Afghanistan ranked 173 on ease of doing business in 2020 versus its neighbours China (31), Iran (127), Pakistan (108), Tajikistan (106), and Uzbekistan (69). Afghanistan scored 44.1 on ease of doing business in 2020. The whole world score mean/average is 63.63 with a standard deviation of 14. To compare this score with the rest of the world, Afghanistan's score is -1.4 standard deviations below the mean. China has the highest score (77.9) among the neighbours which is 1 standard deviation above the mean. Uzbekistan, with a score of 69.9, has a 0.4 standard deviation above the mean. The rest of the neighbours have scores below the mean, namely Iran -0.4 standard deviation below the mean, both Pakistan and Tajikistan are -0.2 standard deviation below the mean in 2020.

However, when it comes to the ease of doing business indicators, Afghanistan has a different ranking. For example, to start a business in 2020 Afghanistan ranks 52 versus its neighbours Iran (178), Pakistan (52), Tajikistan (36), Uzbekistan (8), and China (27). However, on dealing with construction permits, the country has a worse ranking; 183 versus its neighbours Tajikistan (137), Uzbekistan (132), Pakistan (112), Iran (73), and China (33). On getting electricity, Afghanistan has a rank of 173 which is worse than its neighbours Iran (113), Pakistan (123), Tajikistan (163), Uzbekistan (36), and China (12). On property registration, in 2020 Afghanistan ranks 186 which is worse than neighbours Pakistan (151), Tajikistan (77), Uzbekistan (72), Iran (70), and China (28). In terms of getting credit, Afghanistan has the same ranking as Iran (104) which is better than Pakistan (119), but lower than the rest of the neighbours, China (80), Uzbekistan (67), and Tajikistan (11). Afghanistan ranks 140 which is the lowest versus its neighbours Iran (128), Tajikistan (128), Uzbekistan (37), China (28), and Pakistan (28) in terms of protecting minority investors (World Bank, 2020e).

In terms of paying taxes in 2020, Afghanistan ranks 178, which is lower than all of its neighbours, Pakistan (161), Iran (144), Tajikistan (139), China (105), and Uzbekistan (69). On trading across borders, Afghanistan ranks 177 in 2020, which is lower than Uzbekistan (152), Tajikistan (141), Iran (123), Pakistan (111), and China (56). On enforcing contracts, Afghanistan ranks 181, which is lower than Pakistan (156), Iran (90), Tajikistan (76), Uzbekistan (22), and China (5). However, Afghanistan has a rank of 76 on resolving insolvency which is a better ranking than Iran (133), Tajikistan (153), and Uzbekistan 100), but lower than Pakistan (58) and China (51) in the reporting period.

2.10.1 Access to Finance

Between 2004-2018, Afghanistan averaged 1.77 commercial bank branches per 100,000 adults, which is significantly lower than its neighbours for whom data is available; Uzbekistan (39.80), Iran (29.15), and Pakistan (8.61). Afghanistan made some progress with the increase of commercial banks. The number of commercial banks was recorded at 0.36 per 100,000 adults, has increased to 2.23 in 2018. This shows an annual growth of 11.99%, which is the highest in terms of growth versus its neighbours, Pakistan (2.04%), Iran (0.46%), and Uzbekistan, which has a decrease of -0.50% (World Bank, 2020f).

Between 2008-2018, Afghanistan averaged 141.52 depositors with commercial banks per 1000 adults which is higher than China (16.37), but lower than Uzbekistan (557.43) and Pakistan (277.24). Afghanistan recorded 36.18 depositors with commercial banks per 1000 adults in 2008 which has increased to 172.94 depositors per 1000 adults. This shows an annual growth of 15.28% which is the highest among neighbours for whom data is available: China (12.34%), and Uzbekistan (7.50%). Pakistan, with 5.62%, has the lowest growth (World Bank, 2020g). According to the Global Financial Development Database run by the World Bank, financial system deposits averaged 15.33% of Afghanistan's GDP between 2006-2017 (World Bank, 2019c). Between 2014-2018, outstanding deposits with commercial banks in Afghanistan have been recorded as 18.60% - 19.51% of GDP (IMF, 2020).

Afghanistan had 0.02 automated teller machines (ATM) per 100,000 adults in 2004 which increased to 1.60 in 2018. This shows annual growth of 36.21%, higher growth than Uzbekistan (25.90%) and Pakistan (19.43%), for whom data was available. To analyse the annual growth of the periods between 2006-2018, Afghanistan, with 22.39% annual growth, has the second highest growth after Uzbekistan (29.69%), while the rest of the neighbours, Iran (19.72%), China (19.49%), and Pakistan (14.35%), had lower growth than Afghanistan (World Bank, 2020g).

According to Universal Finance Access, 15% of sales (client to business) were made electronically in Afghanistan in 2015 versus 26% in Turkmenistan, 20% in China, 19% in Iran, 15% in Uzbekistan, 14% in Tajikistan, and 13% in Pakistan. However, 32% of supplier payments (business to business) were made electronically in Afghanistan in the year 2015, which is higher than Tajikistan (31%), and Uzbekistan (29%), but lower than China (40%), Tajikistan and Pakistan that each had 37% (World Bank, 2020g).

According to the IMF, outstanding loans from commercial banks in Afghanistan between 2014-2018 was 2.96% - 3.67% of GDP. Overall, it shows it is declining from 3.67% of the GDP in 2014 to 2.96% of the GDP in 2018. Outstanding SME loans from commercial banks were recorded at a minimum of 0.16% and a maximum of 0.20% of GDP (IMF, 2020). Companies have identified "access to finance" as an obstacle given that 77.8% of loans in 2008 and 70.7% of loans in 2014 required collateral as one of the problematic factors. In 2008, 36.6% of firms identified access to finance as a major constraint, while this percentage increased to 47.6% in 2014. According to the Global Financial Development Database run by the World Bank, 3.4% of firms had a line of credit in 2014, which increased to 5.1% which is not significant in 2014. The small firms have even a lower percentage of access to finance. Reportedly,

2.3% of small firms had access to finance in 2008, which increased to 3.6% in 2014. This annual survey suggests that in 2008 1.4% of firms used banks to finance their investments, which increased to 2% in 2014. Only 2.5% of firms were found to use banks to finance their working capital in 2008 and 3.9% in 2014. 35.3% of firms' applications for loans were rejected in 2014 (World Bank, 2019c).

Between 2010-2018, the non-performing loans in Afghanistan averaged 12.93%. Afghanistan in comparison to its neighbours, China (1.37%), Uzbekistan (1.59%), Pakistan (12.06%), has the highest non-performing loans. Non-performing loans in 2011 were recorded at 4.70%. The eight-year annual growth of non-performing loans between 2011-2018, was recorded at 8.30%, slightly less than China (8.40%), however higher than Uzbekistan (7.65%). Afghanistan had an average of 3.34 borrowers per 1000 adults between 2008-2018. Both Pakistan (24.01) and Uzbekistan (53.89) have significantly higher averages than Afghanistan. The annual growth over this period in borrowers in Afghanistan was recorded at 0.19% which is lower than Uzbekistan (14.78%), but higher than Pakistan (-5.29%) which has the lowest value on the list (World Bank, 2019c).

Afghanistan has done a couple of things to improve access to credit. In 2010, the country introduced a law that allows a broad range of assets that can be used as collateral. In 2014, the country strengthened its transaction system through implementation of a unified collateral register. In 2016, the country launched a credit registry aimed to improve its credit information. In 2019, it has introduced a new insolvency law aimed at strengthening access to credit. The new law allows secured creditors to be considered over other claims (World Bank, 2020h).

In 2018, Afghanistan scored 50 in getting credit with a rank of 104 in comparison to all economies around the world. Given that getting credit scores for all economies around the world have a mean 56, and a standard deviation of 24, Afghanistan is -0.25 standard deviation below the mean. Given that the Z-score is -0.25, this means Afghanistan is better than 40.13% of the participating countries in the world but worse than 59.87%. In 2019, Afghanistan has a score of 50 on getting credit. Given the 190 countries scores have a mean or an average of 54, and a standard deviation of 24, Afghanistan is -0.16 below the mean. Given the Z-score of Afghanistan is -0.16, that means, the country is better than 43.64% of the countries on the list but worse than 56.36% of the countries on the list. That means, Afghanistan had a better score in 2019 than in 2018 in comparison to the rest of the world (World Bank, 2020i).

2.10.2 Business Reform in Afghanistan

Afghanistan scored 92 on starting a new business in 2020. The country has made significant changes and progress over a couple of years. In 2010, the country introduced a simplified procedure by establishing a one stop shop in which company registration, tax registration, and the publication of the official gazette were done. This also includes offering a flat registration fee for company registration. Before that, company registration was not in one shop, but in a commercial court, which was very difficult. In 2014, the country simplified the procedure by reducing the time needed and cost to obtain a

business license through the removal of inspection of premises of a newly registered business (World bank, 2020i). However, 2015 was a difficult year to start a new business as publication fees were increased; time to register was also increased. In 2016, an increase of publication and registration fees as cost barriers to start a new business was added on top of the existing issues. In 2017, entrepreneurs were required to pay a three-year business license fee at the time of incorporation. 2019, Afghanistan had good news for those who wanted to start a new business – fees for business incorporation were reduced.

In 2020, the country scored 92 to start a business, with a rank of 52 in comparison to the rest of the world. This is 0.69 standard deviation above the mean. With a mean of 84.6 and a standard deviation of 10.8, the country has a Z-score of this 0.69. This means that Afghanistan has a better performance than 75.49% of the countries around the world, as shown in Figure 2.43a. Only 24.51% of the world economies have a better performance than Afghanistan to start a new business. Given the complete calculation of Z-score shown in Figure 2.43k for starting up a business in Afghanistan and its comparison with the rest of the economies of the world, Afghanistan's performance has been quite vulnerable and even has declined from a Z-score of 1.03 in 2005 to 0.69. That means, in 2005, Afghanistan was 84.85% better than the rest of the world versus 75.49% in 2020 (World Bank, 2020i).

Afghanistan had a global score of 34.5 and a rank of 183 on dealing with construction permits in 2020. Though the 2020 global rank is better than in 2006, in terms of comparison with the rest of economies in the world, the country has been better than 1.88% of the the economies around the world. However, in 2006, the country had a global score of 24.1 in 2006 which is worse than in 2020, but the country was 6.43% better than the rest of the economies around the world, as illustrated in Figure 2.43b (World bank, 2020i). That means Afghanistan did not improve relative to other economies.

Getting electricity is one of the business reforms where Afghanistan does not perform well. Only in 2020, the country introduced some measures to make the electricity department efficient as well as improving electricity bill collection. In 2020, Afghanistan had a global score of 44.2 and a rank of 173. That means the country was better than 9.85% of the rest of the world. In other words, 90.15% of the countries in the world were better than Afghanistan. That means, Afghanistan was better than 32.64% economies in the world. This obviously shows a decline in comparison to other economies as illustrated in Figure 2.43c.

On registering property, Afghanistan made some slight progress to date. In 2008, there were some reforms. It streamlined the steps of securing approvals from officials for the deeds which made property registration easier. Furthermore, digitization of title deeds was introduced in some district courts. In 2010, Afghanistan reduced the fees of property transfer which made property registration easier. In 2020, the country had a global score of 27.5 and a rank of 186. This means the country had a better performance than 2.94% of economies in the world. However, in 2005, the country had a better performance than 4.75% of the economies in the world, a relative decline of performance compared to the rest of economies, as illustrated in Figure 2.43d (World bank, 2020i).

On getting credit, between 2010-2019, Afghanistan made some progress. In 2010, the enactment of a law to broaden the range of assets to be considered as collateral, including future assets, aimed to strengthen the transaction system. In 2014, the country started to implement unified collateral registration intended to further strengthen the system. In 2016, the country launched a credit registry to improve access to credit information. In 2019, the country enacted a new law on insolvency through which secured creditors are given priority over other claims. In brief, the country made significant progress to access to credit. In 2005, the country, in terms of access to credit was better than 6.68% rest of the economies globally, but in 2020 Afghanistan's access to credit is better than 30.85%, as illustrated in Figure 2.43e (World bank, 2020i).

On protecting minority investors, in 2019 Afghanistan took a series of reforms one of which requires disclosures of transactions with interested parties, and eased shareholders' accessibility to documents and evidence during the trial. It also increased the rights and role of shareholders' rights and role in major corporate decisions, and required greater corporate transparency. In brief, the country made good progress between 2006-2020. In 2006, Afghanistan was better than 1.07% of the economies across the world, while in 2020 the country was better than 19.22% of the economies in the world, as illustrated in Figure 2.43f (World bank, 2020i).

On paying taxes, in 2008 Afghanistan made paying taxes more difficult for companies. It increased payment frequency from annually to quarterly. In 2017, the cost of paying taxes was increased. However, in 2019, the country made paying taxes easier with a new tax administration and law manual which have clear rules and guidelines on tax audits, with the option of submitting tax returns electronically.. As far as the comparative performance of Afghanistan with the rest of the world is concerned, it underperformed. In 2006, the country was better than 79.1% of the economies in the world versus 5.59% in 2020 as shown in Figure 2.43g (World bank, 2020i). On trading across borders, in 2017 Afghanistan improved import and export through the usage of an automated system for customs data (ASYCUDA). Otherwise, there has not been any major progress. In 2006, the country was better than 4.75% of the rest of the economies in the world. While the country has not made any progress to date, it has been downgraded. In 2020, the country was only 3.51% better than the rest of the economies in the world as illustrated in Figure 2.43h (World bank, 2020i).

On enforcing contracts, Afghanistan, with a global score of 31.8, ranked 181 in the world. This means Afghanistan is better than 3.59% of the world's economies on the list in 2020 versus 2.94% in 2005. This is not considered any significant progress versus other economies, as shown in Figure 2.43i. For example, in 2019, Canada introduced an e-system in which plaintiffs can file an initial complaint and pay the court electronically. Likewise, Bahrain in 2020 established a special commercial court and introduced a time standard for courts with an electronic system which allows electronic services of summons. On resolving insolvency, in 2019, Afghanistan eased resolving insolvency through a few key elements. It improved the continuation of the debtors' business during insolvency proceedings. Furthermore, the country introduced the reorganization procedure of insolvent companies. In addition, creditors are granted better participation in the proceedings. In 2005, Afghanistan was better than 4.46%

of the economies in the world. In 2020, the country made some progress and obtained a better position. It is better than the 57.93% of the rest of the world (World Bank, 2020i).

Figure 2.43k provides Afghanistan's historical Z-scores for the above business reforms from 2005-2020. It indicates that the business reform has had a volatile performance.

2.10.3 Entrepreneurship Barriers

Afghanistan had a tariff rate (applied, simple mean, all products) of 3.86% in 2004, which was increased to 8.38% in 2018. The tariff rate for manufactured products (applied, simple mean) was 4.2% in 2004, which was increased to 6.92% in 2018. Tariff rates for all products (most favoured nations, simple mean) was 4.09% in 2004 which was increased to 6.5% in 2018. However, the tariff rates for manufactured products (most favoured nations, simple mean) were 4.31% in 2004 and increased to 6.2% in 2018 (World Bank, 2018b).

In 2008, the country had 33 products at harmonized level systems 6 which increased to 156 in 2018. However, the import was 61 in 2008 which was increased to 69 in 2016 (WITS, 2018b). As of 2018, Afghanistan has bind coverage of 96.64% of all its products. That means Afghanistan has managed to negotiate to have a bound rate of 96.64% of its products with the trade partners (World Bank, 2018c). Based on the Hirschman Herfindahl index, Afghanistan has a score of 0.37 in 2015. This score was 0.14 in 2008. That means the country had more diversified exports and imports in 2008 than in 2015 (World Bank, 2015). Afghanistan has a score of 1.98 on the index of export market penetration in 2018. This score is considered quite low and signals barriers which prevent the companies in Afghanistan to penetrate new markets (WITS, 2018c).

In 2018, with a customs efficiency and border management clearance score of 1.73, Afghanistan ranks 158th best in customs and border services in comparison to other economies around the world. Reportedly, the services are quite low. Germany, Sweden, and Japan are the top three countries in customs efficiency and border management clearance in 2018. With a Z-score of (-163), 94.84% of the economies around the world were better than Afghanistan in 2018 in customs and border management clearance. In comparison to 2007, the customs efficiency and border management clearance in Afghanistan has not only gotten worse in comparison to the rest of the economies in the world, but dropped from 150th rank to 158th. In fact, between 2007-2018, the years such as; 2010 (rank 104), 2012, (rank 99), 2014 (rank 137), and year 2016 (rank 138) were better years than 2018 in comparison to the rest of the economies in the world (World Bank, 2018d).

Another barrier is international shipment. The country's international shipment score was recorded at 2.1, which has fallen from 2.24 in 2010. Afghanistan has a global shipment rank of 152. Given the 2018 score on international shipment, 92.02% of the economies in the world are better than Afghanistan. Another barrier is the associated costs of border compliance. The regulations are supposed to be complied with to ship goods to another country. Compliance with regulations to ship goods across the border costs time and money. Sometimes the costs also include informal payment for which there is

no receipt. Afghanistan has a score of 57.29 in 2019 on international shipment. With a z-score of -0.24, Afghanistan is better than 40.52% of other economies in the world. The country has been flat on this score between 2014-2019. Given the informal payments, which can be termed as bribery and corruption, businesses must include them as part of their cost structure (World Bank, 2019d). Documentary compliance adds to export costs. Entrepreneurs must comply with the documentary requirements of the country of origin, destination, and transit. This includes the costs to obtain, prepare, process, present, and submit documents, plus insurance costs. There are informal payments too, for which there are no receipts. Unfortunately, Afghanistan is considered one of the worst among the global economies. The country scored 13.88 in 2019 on documentary compliance, which has remained flat with the same score since 2014. With a z-score of -2.18, the country is better than 1.88% of economies in the world. (World Bank, 2019d).

It takes 270 hours per year to pay corporate tax. Afghanistan has zero option of post filling for tax rate shall there is a need (World Bank, 2020j). Should investors need to lease a piece of land for industrial or business purpose, the strength of legal rights is assessed with a score of 73.30 out of 100 in 2012 (World Bank, 2012). In 2019, the quality of the judicial process index in Afghanistan is rated 5 out of 18. Court structure and proceedings are rated 2 out of 5 in 2019. Case management is rated 1 out of 6. Court automation is zero. For alternative dispute resolution, the country is rated 2 out of 3. Entrepreneurs are challenged, given a lower quality for contract enforcements and judiciary system as part of their everyday business. Furthermore, the country's strength of the insolvency framework is rated 12 out of 16, and creditors' participation index has been rated 2 out of 4 (World Bank, 2020i).

2.10.4 Infrastructure & Logistics

Based on the latest global logistics performance index which analyses six variables, namely customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness, Afghanistan has a score of 1.95 out of a potential score of 5. The country ranks 160 in the global logistic performance index ranking. As illustrated in Figure 2.44a, Afghanistan has the lowest scores in the world, and in comparison to South Asia, East Asia, and the Pacific, on all logistics performance variables. Quality logistics services matter for entrepreneurship; entrepreneurs struggle to perform in a competitive business environment that negatively influences the performance of businesses. Afghanistan has secured a score of 1.73 on the performance of customs in 2018 and a global ranking of 158. With a mean of 2.67, a standard deviation of 0.58, Afghanistan has a Z-score of -1.62. That means, the country is better than 5.28% of the rest of the economies in the world on customs and has a lower performance than 94.72% of the economies in the world, as illustrated in Figure 2.44b. On the logistics performance index, 50% of respondents answered that the level of fees and charges are very high at ports, airports, including agent fees. Zero percent of respondents agree to the fact that competence and quality of services at customs agencies, customs brokers, and quality/standards of inspections agencies are either high or very high (World Bank, 2018e).

On infrastructure as a key variable of the logistics performance index, Afghanistan has a score of 1.81 out of a potential score of 5. This ranks Afghanistan 158 in the world in 2018. With a mean of 2.72, a standard deviation of 0.67, Afghanistan has a Z-score of -1.36. That means, the country has a better performance in terms of infrastructure than 8.69% of the economies in the world, but lower performance than 91.31% of the economies in the world, as illustrated in Figure 2.44c. 67% of the respondents agreed to the fact that the quality of infrastructure in the country in terms of ports, airports, and roads is low. 33% of respondents agreed that the quality of rails, warehousing, trans-loading facilities, telecommunication, and IT are low. (World Bank, 2018e). On international shipment as another key variable of logistics performance index, Afghanistan has a score of 2.10 out of a potential score of 5 in 2018. That means the country was ranked 152 in the world. With a mean of 2.83, a standard deviation of 0.52, Afghanistan has a Z-score of -1.41. That means, the country is 1.41 standard deviation below the mean or average. In comparison to the rest of the economies in the world, it is a better performance than 7.93% of them in 2018 and lower performance than 92.07% them, as illustrated in Figure 2.44d (World Bank, 2018e).

On logistics quality and competence as part of the logistics competence index, Afghanistan has a score of 1.92 of a potential score of 5 in 2018. Zero percentage of the respondents evaluated the quality and competence of road, rail, airport, air transport, warehousing, trans-loading, distribution, customs agencies, quality/inspection agencies, customs brokers, trade and transport associations, consignee/shippers as high. Only 30% rated competence and quality of services of freight forwarders high. This means the country ranked 158 in the world. With a global average/mean score of 2.82, a standard deviation of 0.61, and a Z-score of -1.47, Afghanistan is 1.47 standard deviation below the mean. That means the country has 7.08% better performance or lower performance than 92.92% than the rest of economies in the world, as shown in Figure 2.44e. On tracking and tracing, Afghanistan had a score of 1.70 of a potential score of 5 in 2018, ranking 159. With a global mean score of 2.90, and a standard deviation of 0.61, Afghanistan is 1.96 standard deviation below the mean. That means the country has a better performance than 2.5% of the economies in the world or lower performance than 97.5% of the countries in the world, as illustrated in Figure 2.44f (World Bank, 2018e). On the timeliness variable of the logistics performance index, Afghanistan's score was 2.38 a potential score of 5 in 2018. Zero percent of the respondents evaluated the efficiency of clearance and delivery of imports and exports, transparency of customs clearance, and other border agencies positively. Not only that, but the provision of adequate and timely information on regulatory changes, and expedited customs clearance for borders with low compliance levels were a matter of concern. In terms of ranking, the country was ranked 153. With a global mean score of 3.24, and a standard deviation of 0.58, Afghanistan is 1.48 standard deviation below the mean of the global score. That means the country has a better performance on timeliness than 6.94% of the rest of the countries in the world in 2018 (World Bank, 2018e). Further logistical challenges are: customs clearance procedures, trade and transport infrastructure, telecommunication and IT infrastructure, private logistics services, solicitation of informal payment, and lack of improvement on regulation related to logistics.

Entrepreneurship also suffers from poor reliability of electricity supply and transparency of tariffs in Afghanistan. In 2019, from a potential score of 100 on reliability of electricity supply, Afghanistan was rated zero. This score is zero since 2014 without any improvement through 2019 (World Bank, 2019f). However, as of 2017, 97.7% of the population has access to electricity, while the global average has been recorded at 88.87% (World Bank, 2017). Reliability of infrastructure index assesses if there is adequate infrastructure to ensure a high standard is in place to reduce the risk of errors in land registry and cadastre. Out of a potential score of 8, Afghanistan received a score of zero in 2019 (World Bank, 2020i).

The latest data on the ICT development index, which is administered by the International Telecommunications Union (ITU) has given Afghanistan a score of 1.95 of a potential 10 in 2017. The index investigates key variables such as ICT infrastructure and access indicators, ICT use indicators, and ICT use skills through fourteen indicators. With a score of 1.95, Afghanistan ranked 159 among 179 economies in the world. Though the country improved in comparison to 2016 in terms of score (1.71/10), and rank (165), it still has a long way to go. Having this poor ICT related infrastructure, entrepreneurship has been affected negatively in terms of performance (ITU, 2017). Since it has a poor ICT development index, Afghanistan also does not have a good performance on e-commerce. The ICT development index measures if an economy has the means to allow online shopping. Afghanistan obtained a global score of 18.2 of a potential score of 100; it was ranked no. 143 among 152 countries around the world in 2019 (UNCTAD, 2019).

2.10.5 Risks and Policy Uncertainty

The World Bank recognises Afghanistan as a fragile and conflict-affected country as of the fiscal year 2020. The country has been classified as high-intensity conflict among six other countries: Central African Republic, Libya, Somalia, South Sudan, Syria, and Yemen (World Bank, 2020k). The Country Policy and Institutional Assessment (CPIA) is exercised on countries that meet International Development Association (IDA) criteria where Afghanistan is one of the 76 countries (International Development Association, 2020). The policy framework measures the countries based on a set of criteria on issues such as economic management, structural policies, policies for inclusion and equity, public sector management, and institutions. Afghanistan's performance was low on various CPIA variables, especially business regulatory environment rating (2018=2), economic management and cluster average (2018=3), public sector management and institutions cluster average (2018=2.6), quality of public administration rating (2018=2.5), trading rating (2018=3.5), structural policies cluster average (2018=2.5), transparency, accountability, and corruption in the public sector rating (2018=2) as illustrated in Figure 2.45a and 2.45b. This low performance make it a serious risk with policy uncertainty issues for entrepreneurship, causing entrepreneurs to struggle in a competitive business environment regionally and globally (World Bank 2019g).

From a potential score of 6, the country has not only improved on business related issues between 2006-2018, but some of the indicators have been downgraded. For example, the business regulatory

environment rating has been downgraded from 2.5 in 2006 to 2 in 2018. The economics management cluster has also been downgraded from 3.3 in 2006 to 3 in 2018. Macroeconomic management rating has been downgraded from 4 in 2006 to 3.5 in 2018, transparency, accountability, and corruption in the public sector have also been downgraded from 2.5 to 2. Some indicators have improved slightly in 2018 versus 2006 but still, the 2018 ratings are low. For example, the property rights and rule-based governance rating has been upgraded from 1.5 in 2006 to 2 in 2018. Public sector management and institution average cluster improved from 2.3 in 2006 to 2.6 in 2018, etc (World Bank 2019g). An economy with uncertainty makes it hard to hedge against potential risks. The businesses in Afghanistan operate under an uncertain condition which makes them review their risk management plan constantly.

Under the six global governance indicators which are voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption, Afghanistan also does not have a good performance.

Afghanistan, from a potential score of 2.5 for a strong voice and accountability and -2.5 for a very weak voice and accountability, has a minimum score of -1.40 and a maximum score of -0.40, as shown in Figure 2.46a. In comparison to 208 countries and territories, Afghanistan has a minimum percentile rank of 9.6% and a maximum percentile rank of 22% between 2003-2018. The country has a volatile performance on voice and accountability. In 2003, the country had a percentile rank of 14.5%, while the percentile rank sank to 9.6% in 2009. Since then, the country has been trending upwards to 22% in 2017, but it declined to 20.5% in 2018. Overall, it has improved between 2003-2018. Given the poor performance of Afghanistan on this indicator, entrepreneurship is affected. An environment in which entrepreneurs' issues are heard is important. Furthermore, an inclusive approach to hearing the voices of different segments of society, and accountability of public officials are key elements of stabilization needed by entrepreneurs to perform. Constructive and instrumental suggestions to remove trade barriers and have entrepreneurship voices included in the policymaking process are key to private sector development (World Bank, 2018f).

On political stability and the absence of violence/terrorism, which measures orderly transfers, armed conflict, violence, social unrest, international tension/terrorist threats, Afghanistan has one of the worst performances. Afghanistan has a minimum score of -2.80 and a maximum score of -2.07 between 2003-2018. This performance puts entrepreneurship in a difficult situation. Political stability and the absence of violence are critical elements to allow companies to deliver goods and services and perform in a competitive business environment. To compare the country with 212 countries and territories around the world, Afghanistan has a minimum percentile ranking of 0.47% and a maximum of 2.85% between 2003-2018, as illustrated in Figure 2.46b. This is one of the lowest. That means the 0.47%, or 2.85% of countries among 212 are either at the same level or lower than Afghanistan. It indicates that entrepreneurship is challenged in terms of political stability and violence/terrorism issues. Afghanistan is associated with high political risks and instability, which makes it hard for entrepreneurs to work in a fragile, unpredictable, and uncertain environment (World Bank, 2018f).

On the government effectiveness indicator, which measures the quality of bureaucracy and institutional effectiveness, excessive bureaucracy, or red tape, Afghanistan has a minimum score of -1.50 and a maximum score of -0.89 out of a potential score of +2.5 for a strong and -2.5 for weak performance. The country's lowest percentile ranking is 3.83%, while the highest ranking is 17.24%. The country's performance has been quite volatile, as illustrated in Figure 2.46c. To compare 2003 to 2018, the earlier period has a better performance with a percentile ranking of 11.73% while the later period has a percentile ranking of 7.69%. Graphically, Afghanistan's performance on government effectiveness has been declining over time (2003-2018). An enabling environment in which efficiency and productivity are high, is important in support of private sector development, which unfortunately is challenged in Afghanistan (World Bank, 2018f). In an enterprise survey, 24.9% of firms identified political instability as a major constraint where South Asia's average score for this variable is 17.9% (World Bank, 2014).

On regulatory quality, which includes unfair competitive process, price controls, discriminatory tariffs, excessive protection, and discriminatory taxes, Afghanistan also does not have a good performance history between 2003-2018. The country has a minimum score of -1.69 and a maximum score of -1 of a potential score of +2.5 for strong regulatory quality and -2.5 for weak regulatory quality as shown in Figure 2.46d. The country has a minimum percentile rank of 2.91% and a maximum percentile rank of 14.42% in comparison to the 214 economies and territories around the world. Overall, the performance of the country has improved. For example, in 2003, the country had a score of -1.43. Its percentile ranking was 5.6% compared to other economies in the world. However, in 2018 the country had a score of -1.13 or percentile rank of 10.6%. Most of the economies and territories around the world have a better performance than Afghanistan (World Bank, 2018f). Based on the enterprise survey in Afghanistan, it takes 139.6 days to obtain a construction-related permit versus 55.1 days in South Asia,while 39.1% of the firms identified tax administration as a major constraint and 27.6% of firms identified business licensing and permits as major constraints (World Bank, 2014).

On rule of law, which measures violent crime, organized crime, the fairness of the judicial process, the enforceability of contracts, speediness of judicial process, confiscation/expropriation, intellectual property rights protection, and private property protection, Afghanistan has a low performance. The country had a minimum score of -1.86 and a maximum score of -1.45 of a potential score of +2.5 for a strong performance and -2.5 for weak performance. The minimum percentile rank was 0.47% versus the rest of the world and the maximum was 5.77%. Comparing the score of rule of law of 2003 with 2018, unfortunately, it has declined from -1.55 in 2003 to -1.67, although the percentile ranking increased from 3.96% in 2003 to 4.33%. The country has one of the lowest performances in the world. Entrepreneurship needs an environment in which the system functions and laws are enforced to promote private sector development (World Bank, 2018f).

On control of corruption, which measures corruption among public officials, Afghanistan has a minimum score of -1.64 and a maximum score of -1.34 from a potential score of +2.5 for strong control of corruption and -2.5 for a weak control of corruption between 2003-2018. The country has a minimum percentile ranking of 0.49% and a maximum of 6.25% between 2003-2018 as illustrated in Figure 2.46f.

Control of corruption has not only not improved, but deteriorated. Overall, control of corruption has declined from -1.35 in 2003 to -1.50 in 2018. (World Bank, 2018f). In an enterprise survey conducted by the world bank, 62.6% of firms confirmed that corruption is a major obstacle, while 40.8% confirmed that the court system is a major issue. 46.8% of the firms reported that they received bribery payment requests. 34.6% of firms were asked for bribery payment during a public transaction. 34% of officials stated that they were expected to provide a gift in meetings with the tax administration. 46.9% of firms had to pay bribes to secure government contracts. 31.6% of firms said that they were expected to gift to get an operating license, while 23.6% of firms stated that they needed to bribe to get an import license. 60.4% of firms were expected to give to get a construction permit. 53% of firms confirmed that they were expected to give during electricity connection and 79.3% during water connection. And 39.3% of firms confirmed that they were expected to bribe public officials to get things done (World Bank, 2014).

In the survey, the firms emphasized that their obstacles are access to finance, access to land, getting a business license, corruption, court systems, crime, theft, disorder, customs and trade regulations, getting electricity, political instability, the informal system, tax administration, and transportation.

2.11 Conclusion

It has been noted that entrepreneurship is considered a fundamental driver of economic growth, employment, prosperity, and welfare. Entrepreneurship is not only a driver of economic growth, but the engine of a country's ecosystem on which the performance of countries depends. Entrepreneurship brings efficiency, productivity, effectiveness, and creates values, services, products, and generates wealth, and enhances prosperity for a country's citizens.

Entrepreneurship performance is not self driven. It depends on the availability of some prerequisites as enabling drivers to facilitate and make the journey of entrepreneurship feasible. Given the interconnectivity of the ecosystem and its relationship to entrepreneurship performance, it is vital to have a good entrepreneurial environment to enable entrepreneurship to cater to the specific needs and priorities that allow strong entrepreneurship performance.

Given the extensive literature review, the availability of an entrepreneurial environment is important to be competitive, efficient, effective, and flexible, as well as adjustable, aligned with the evolving needs and contextual priorities of entrepreneurship. Successful entrepreneurship requires a business legal framework that actually enables companies to perform. Entrepreneurial activities cannot be achieved without having access to finance at different stages from seed to maturity level. Market conditions and business environment are a crucial element in which companies operate. Skills, technology, and innovation are elements which can enhance productivity as added values. Competitiveness encourages innovations and efficiency needed for entrepreneurial activities to produce goods and services. It has been noted that the economies with good ecosystems are competitive, have good entrepreneurial performance, and competitive economic performance versus economies with ecosystems

with a relatively lower ratingBased on the important role of entrepreneurship in today's world, it is important to analyze what entrepreneurship needs to lead to a good performance. The next chapter will disucss indicators, tools, and approaches, through a comprehensive qualitative and quantitative methodology composed of factors on which entrepreneurship performance depends.

3 METHODOLOGY

3.1 Introduction

In the previous chapter, the relevant theoretical frameworks and literature have been reviewed and analyzed. This includes the definition of success and failure, and measuring the success or performance of businesses. In addition, the factors which contribute to the success and failure of entrepreneurship have also been reviewed and analyzed, namely business strategy, innovation, technology, etc.

This section will provide how and what specific methodology has been used to conduct this research in particular methods, designs, and approaches. It will also take why a specific method has been selected and the key benefits. Data collection, data analysis, data interpretation, sampling, selection of study site, research instrument, data sensitivity, and confidentiality have also been part of this chapter.

3.2 Selection of methodology

Given the importance and complexity of Afghanistan, both the mixed-method approach and mixed research design have been used, aimed to provide a comprehensive understanding of research's hypotheses. It captures a real picture, gets inside, and analyzes factors in a holistic manner. The research framework integrates both qualitative method and quantitative methods to increase accuracy, explore issues deeply, and analyze things comprehensively (Creswell, 2014).

Using an explanatory sequential mixed method, a quantitative survey has been conducted first. The results were analyzed and the qualitative part was conducted in more detail to explain the factors or research hypotheses (Creswell, 2014). The qualitative part has had open-ended questions without predetermined responses while the quantitative part used the Likert Scale, as illustrated below. Multiple forms of data collection were aimed to provide a comprehensive picture, avoid biases, and get inside the issues (Creswell, 2014).

Using the mixed method, it provided an opportunity to have predetermined and emerging methods. It has both open and closed-ended questions. The method and approach assisted to extract data in all possible forms. The data was analyzed in the text and quantitative manner. The method provided the opportunity to integrate into four types; 1) merging the data where both quantitative and qualitative data are merged and compared 2) explaining the data where the qualitative data is used to explain the result of quantitative data, 3) building the data where qualitative findings are used to build the quantitative part of the study, and 4) embedding the data where one data set has been used to support other sets of data (Creswell, 2014).

To measure the performance or health of a company, there are many business theories by which performance will be modelled and measured. As highlighted in the theoretical framework, they are normally quantitative finance theories. In fact, the theories use the financial elements of a company and

measure companies in terms of creditworthiness, or credit rating, probability of default, valuation of companies, probability of insolvency, bankruptcy, and the riskiness of the companies over time. Normally, these theories are used to measure the performance of publicly traded companies that are mandated to disclose periodically their financial reports. Given the publicly traded companies' financial data is open, they are easily accessible, and the financial theories mentioned in the theoretical framework can be used. Only the parameters or factors are plugged in which will determine if a targeted company performs well or poorly, and better, or worse, over time. As the targeted companies for this research are not publicly traded companies, the available theories to measure the performance of companies will not apply. Alternatively, an option that fits the situation and local context has been chosen. The companies were asked to rate their success from 1-5, best to worst. The companies will also be surveyed to get data on their accessibility to the entrepreneurship ecosystem of Afghanistan. In addition, there will be bilateral interviews with selected companies to capture stories, get inside, and have the quantitative part backed up with the qualitative part; mixed method or specifically explanatory sequential mixed method. This comprehensive approach will ensure the quality, accuracy, relevancy, and applicability to the local context in order to analyze the factors of success and failure in Afghanistan.

Through the quantitative method, the companies were surveyed using a written questionnaire, which was originally drafted and finalized in English and later translated into the local language, Dari. All 161 companies were presented with printed copies of questionnaires to fill in. The quantitative questionnaires used the Likert Scale, (Marczyk, et.al, 2005) where respondents filled out the most appropriate option applicable to his/her company's situation. The quantitative method used both descriptive and inferential statistics, as explained in detail under the data analysis below. As far as the qualitative part of the research is concerned, bilateral interviews were held in person with the company's CEO/president, deputy CEO/vice deputy, or a designated and competent official as assigned by the management of the company. The data were collected on hard copies, interviews were noted, and probing questions were asked, intended to get inside and reach to the bottom of the issues, capturing every possible detail.

3.3   Research instrument

As emphasized above, the research method has been both quantitative and qualitative (Neuman, 2014). For the quantitative approach, six key variables have been chosen which serve and best represent the context of the entrepreneurship ecosystem of Afghanistan. These variables are: access to finance; market conditions and business environment; infrastructure; access to skills; access to innovative assets; and institutional and regulatory framework.

Each variable has been defined through respective indicators. "Access to finance" as the first variable is defined through six indicators, namely 1) Loans are available in the market to acquire for the business purpose 2) In general, interest rates (spread) charged for loans in the Afghan market are reasonable;

3) The government has subsidized interest rates to make borrowing affordable; 4) There are alternative funding sources to finance businesses; 5) Financing sources available in the market are aligned with the local context, in particular Islamic banking, and 6) The banking system is functional and secure for business use.

The second variable, "market conditions and business environment," has been defined by five indicators, namely 1) The government procures and supplies its demanded products from the domestic market; 2) The domestic market addresses the demanded outputs of households; 3) There are barriers for investment and trading in domestic markets; 4) There are barriers to enter/access global market for investment and trading; 5) Competence and quality of logistics services are good enough for business performance.

The third variable, "infrastructure," has been defined by four indicators, namely 1) Border infrastructure and customs administration including electricity system have been strengthened for business efficiency both for imports and exports; 2) In general, business logistics services, transport related infrastructure, including timeliness of goods shipment to trade destinations, are available, reliable and effective; 3) The business has access to energy including, reliable electricity with the right capacity fit for business purposes; and 4) Internet connection is reliable, accessible, and affordable with a good speed which can satisfy business needs.

The fourth variable, "access to skills," is defined by four indicators, namely 1) The business has access to specialized or skilled labor; 2) The business considers itself to have very good entrepreneurial skills; 3) The business employees get professional training as needed; and 4) The business perceives itself to have a good calculation of risks and return on investments.

The fifth variable is "access to innovative assets," defined by three, namely 1) The business has access to modern technology including Big Data Analysis for organizing business issues and business to increase productivity and profits (e.g. supply chain management, e-sales, e-payment, etc.); 2) The business has a collaborative relationship with research institutions and other firms to introduce innovative business processes for profits and add values; and 3) The business has institutionalized research and development efforts, and partnerships with other firms for innovative business processes, ideas, and performance.

The sixth variable, "institutional and regulatory framework," is defined by five indicators, namely 1) Overall, the complexity of regulatory procedures for entrepreneurship related issues have been simplified; 2) Property registration for business is complicated; 3) Land acquisition from the government for industrial or business purposes is complicated; 4) Public governance supports businesses institutionally (supports, training, coaching, consultation, problem solving, marketing, etc.); and 5) The government has an effective participatory mechanism to listen to businesses problems and address them, and protects investment and trading. Using a Likert Scale, the questionnaires were explained in person to the respondents, and respondents were given time to select the most appropriate option applicable

to their situation. Given that some respondents were not sure to understand certain questions, they were explained again, ensuring that they understood and filled in the right options in the questionnaire. The data collector waited until the questionnaire was filled in by each individual. Upon completion, the questionnaire was reviewed to ensure that they were filled in properly, and all questions were answered as applicable to the respective companies.

Under the qualitative method, structured and semi-structured interviews were held with selected companies. Using probing techniques in the interviews, respondents were encouraged to explain and elaborate their points in detail, to allow the researcher to get inside the story, and capture every possible detail relevant to the factors of success and failure of entrepreneurship in Afghanistan. The qualitative method has been instrumental and fundamental to back up the quantitative method in terms of enriching the responses that standalone numbers do not explain. The stories were captured, organized, analyzed, and modelled, fitting the structure of the research. Some of the interviews were taken by WhatsApp, depending on the accessibility of the potential respondents and time limitations. Schedules were organized and the interviews were conducted. On average, an interview took an hour.

After data collection, they were properly documented with required referencing so that each part of the questionnaire can be accessed easily and efficiently. The data quality has been conducted given the principles of integrity, validity, timeliness, precision, and reliability. A database in Microsoft Excel, based on the structure of the questionnaires, was constructed. Prior to data entry, all data were screened for accuracy. Given that the research used the Likert Scale, the Excel function "=COUNTA(J5789:O5789)" was used to check if more than one cell in a row has been filled in. If more than one cell in a row was filled in, the resulting cell was automatically changed from 1 to 2, and highlighted in yellow. That means, two cells have been marked. This helped to identify data accuracy. Furthermore, on columns, the "=COUNTIF(K3:K5798,"2")" function of Excel was used to check if in the column where it is supposed to be a value of 2, there is not mistakenly a different value. If it occurred; it was automatically shown. After the data was entered, there were reviews to ensure that the data entered is correct, and missing values were addressed as appropriate.

3.4   Selection of study site (if applicable)

The cities of Herat, in the western region of Afghanistan, which serves as the economic hub for the region, and Mazar-i-Sharif, in the northern region of Afghanistan, serving as the economic hub for the region, have been selected for the interviews. The sampled 161 companies were the total number of companies in these two cities, excluding the eight piloted companies (see below). The distribution of companies is 98 (60.87%) in Herat and 63 (39.13%) in Mazar. Accessibility has been a key reason why the cities were selected. The reason why Herat has a weigh of 60.87% of companies interviewed is due to accessibility reason as well as higher importance economically; higher revenues, higher economic activities, etc.

3.5   Pilot tests

Four companies in Mazar and four companies in Herat were pilot-tested to get their reaction to the questions. The pilot testing has assisted the researcher as to how potential respondents should be approached with the questionnaire, considering their age, cultural norms, level of education, understanding of business terms, etc. Having learned that some of the respondents were not familiar with business terms such as "Big Data, subsidy, etc.", the researcher offered an explanation of the questionnaire to all respondents to be sure they understood. The researcher also offered clarifications where needed. The key issue was to ensure that the respondents understood well how they were responding to the questions, so that the right feedback was collected. The companies used to pilot test were not used in the results of the study.

3.6   Sampling procedures

Using simple random sampling, 161 companies were sampled to be part of this research. Eight companies were used to pilot test the questionnaires. Given the complexity of the country, accessibility to the companies is complicated. Therefore, the researcher contacted the Balkh and Herat governors' offices. In Balkh, the researcher met the Director of Technical Services, Mr. Farhang Farhang in Mazar in July 2019 and explained the purpose of the research. It took the governor's office two days to issue an official letter asking the Mazar Chamber of Commerce, Mazar customs office, Department of Industries, Department of the High Investment Council, and Department of Trade and Commerce Artisans to share the list of companies and cooperate in the process of data collection and overall research. Likewise, in Herat, the researcher held a meeting with the deputy governor, Dr. Ghulam Daud Hashimi of Herat in August 2019, who followed the same procedures, issuing letters to the respective officials, who then shared the list of companies with the researcher. Upon receipt of the list of the companies, the selection of companies was conducted.

To make it representative, both cyclical and non-cyclical businesses were included. As an overall framework, the Russel Global Sectors Industry Classifications were used and adapted to the context (Stowe, et.al, 2015). The respondents are from the following sectors: energy, consumer staples, consumer discretionary, health care, materials, machinery, professional services, transport, capital goods, and utilities. The table below provides industrial distribution of the sample. The distribution of companies between the two cities was 39.13% or 63 companies in Mazar and 60.87% in Herat, or 98 companies. Given the accessibility of companies in Herat was better than Mazar, and that Herat is considered a major economic hub not only of the western region but of the country, more companies were surveyed in Herat.

The researcher contacted each company individually, explained the questionnaire, and asked them to provide their responses. Five companies showed no interest in partaking. The response rate, therefore, was 96.99%. Otherwise, most of the companies showed interest in participating in the research. The

respondents have been mostly the CEO/President, deputy CEO/vice president, or designated competent official in the companies. Normally, the researcher was warmly welcomed, and the respondents took part with great enthusiasm. There were no women respondents, but only men. There has been no choice of ethnicity selection.

Industry	No of Companies	Share in %
Capital Goods	3	1.86%
Consumer Discretionary	29	18.01%
Consumer Staples	66	40.99%
Consumer Staples and Energy	2	1.24%
Consumer Staples and Materials	1	0.62%
Electrical Equipment	1	0.62%
Energy	8	4.97%
Energy and Materials	1	0.62%
Health Care	20	12.42%
Machinery	1	0.62%
Materials	23	14.29%
Professional Services	1	0.62%
Transport	3	1.86%
Utilities	2	1.24%
Total	161	100%

Figure 2.46g: Industrial Distribution of Sample Size

Source: Respondents' Feedback analysed by the author, 2019

3.7 Data analysis

After data entry, one variable which is composed of a few indicators was summarized using the equation 100 * (1 - (value - minimum) / (maximum - minimum)). In the first step, the total values of indicators were averaged. Assuming a respondent has responded to six indicators of "access to finance" as follows: (1=strongly agree, disagree = 4, 3=neutral, 2=agree, NA="I do not know", and 2=agree). In the first step, the total values will be averaged as 1+4+3+2+2/5=2.4. Then, the above equation will be used as; 100*(1-(2.4-1)/(5-1))= 65. This means this particular respondent has 65% access to finance. There are almost 6,000 records in the database, which were automatically calculated. =SUM(J3:N8)/COUNTIF(J3:N8,">0") was used to adjust for biases. For example, if a respondent replied "NA," the response is not counted as part of average to avoid biases. A weighted mean has not been used. All variables, independent of the number of indicators, have been equally weighted.

The data collected under each variable was analyzed using descriptive statistics. In general, both descriptive and inferential statistics were used in this research. Key descriptive statistics used include arithmetic statistics equations, namely average, variance, standard deviations, standardized scores such as Z-score, count, Kurtosis, skewness, ranking, percentile, median, mode, correlation, percentage, minimum, maximum, summation, frequency distribution, histogram, etc. $Growth\ Rate =$

$\left(\frac{\text{Present value}}{\text{Past value}}\right)^{1/n}$ has also been used to measure the growth rate. Normal distribution and bell shape have been used to standardize and analyse various themes, as appropriate. The Excel function "countifs" has been used to count the number of respondents meeting certain conditions; e.g. the number of respondents who strongly agreed that "loans are available in the market to acquire for business purpose" was managed using this methodology: =COUNTIFS('1. Dataset'!I3:I5798,"Loans are available in the market to acquire for business purpose",'1. Dataset'!J3:J5798,"1"). The PERCENTRANK(array,x,[significance]) function of Excel was used to analyse the data for percentile. For example; where Afghanistan standards in terms of its business regulatory reform or paying taxes in comparison to the rest of the economies in a period were concerned. This method has also been used to compare Afghanistan's performance over time.

The RANK.EQ(number,ref,[order]) function of Excel was used to rank data, as appropriate. NORMDIST(x,mean,standard_dev,cumulative) was used to check the probability and to develop a bell shape and Z-score. It has been used to check the distribution of certain thematic areas, especially in analysing the variables. Furthermore, plots, bar charts, scatter plots of X.Y, bars, columns, tables, lines, area charts, radar, etc. have been used to analyze and model the data in terms of comparison, description, and inferential statistics. The Z-score has been widely used along with the bell curve to standardize data. It compares Afghanistan over time versus the rest of the world in various thematic areas in the areas of entrepreneurship.

Descriptive statistics were used overall as supporting tools to support testing hypotheses. The hypotheses have been tested using a single and multivariate linear regression. Inferential statistics were used in depth to analyze the key properties of the regression outputs, namely correlation, R square, t-stat, and p-values. The alpha has been set <=0.05 to find statistical dependency between variables. Given the regression outputs, the null hypothesis was either rejected or accepted based on the rule of thumb: p value <=0.05, t-stat >+2, <-2. If the rules of thumb were met, each assigned null hypothesis was rejected and the alternative hypothesis was accepted. As indicated above, descriptive statistics were used to analyze the variables. The methodology counted the number of respondents who responded to different options in an indicator using the Likert Scale, e.g. strongly agreed, agreed, neutral, disagree, strongly disagree, and NA. Then, responses were analyzed in terms of the percentage of respondents who agreed or disagreed of the total number of responses on an indicator.

3.8   Data Sensitivity and Confidentiality

Given the sensitivity of the data collected from the surveyed and interviewed companies, all of them have been codified to protect their identity. In addition to serving the academic requirement, it is a key purpose of this research to allow potential and interested stakeholders to read the findings and analysis. Publicizing their identity can put them in trouble. Therefore, it is important to protect the identity of the respondents to mitigate the potential risks against them.

3.9 Conclusion

Given the complexity of the research topic in a complex country, a comprehensive methodology is important. The current methodology captured every potential angle of issues catering to the research purpose. The hypotheses were not only tested quantitively but also qualitatively as complements to allow an in-depth analysis of the issues. Furthermore, a technology-based analysis has been used to process responses to ensure accuracy and minimize potential errors.

The data collected will be a comprehensive picture of entrepreneurship in Afghanistan. They provide a good historical insight on where the country stood, performed, and stands at the moment. As the added value of the data collection method, it covers different models and samples in various entrepreneurial areas. Furthermore, Afghanistan has been compared over time with the rest of the world, as well as to its six neighbors.

Data collection and conducting this empirical research have been extremely challenging. While traveling between Mazar and Kabul, I had the whole questionnaire and my notebook with me. I requested the taxi driver to hide my things. I had to hide them from potentially being discovered by terrorist groups on the highway. Being caught by them with these materials can put one in to huge trouble, possibly life threatening. I was also exposed to the public while collecting data from door to door under extreme weather conditions of almost 50 degrees. In addition, the probability of having anything to happen security-wise was also high given that I had to travel to governors' offices, public buildings, etc., which are under a serious threat from attacks by the Taliban or other terrorist groups. However, based on my extensive experience in Afghanistan, and knowing the context well, I took every step very carefully, calculating everything, giving a high priority to security issues.

In the next chapter, findings of the research have been drawn up, modelled, and analyzed. It provides interested readers with a good insight on what factors make entrepreneurship a success or failure in a complex environment, such as Afghanistan.

4 RESULTS AND DISCUSSION

4.1 Introduction

The previous chapter discussed the methodology of how this research has been conducted. In this chapter, both the qualitative and quantitative findings will be discussed, analyzed, and modelled. There are seven hypotheses with their respective alternative hypotheses. The alternative hypotheses, which are selected entrepreneurial variables, argue that entrepreneurship performance depends on each of the alternative hypothesis availability and accessibility.

Each hypothesis starts with the introduction of the variables, data set, and respective indicators. It will be followed by a description of the variables and indicators via descriptive statistics, including using the respondents' feedback on each indicator through different approaches. The descriptive part is followed by hypothesis testing using linear simple regression. After that, the qualitative part collected from the bilateral interviews with the respondents will be discussed, analyzed, and modelled. Overall, it is a holistic approach using descriptive, prescriptive, predictive, and explanatory analyses to provide comprehensive insight to each issue and contribute to an in-depth understanding of the topics.

4.2 Factors of Success and Failure

22 companies have identified a series of factors that contribute to the success or failure or bad performance of their businesses in Herat and Mazar. The factors are: access to finance; market conditions and business environment; good infrastructure; access to skills; access to innovative assets; good institutional and regulatory framework; poor enabling environment; corruption in customs office; compliance and quality control; taxation and depreciation of assets; USA sanctions; good and flexible business strategy; customer relations; differentiation; market demand; and language as core capabilities. The factors are broken down into analytical themes. For example, there was unequal taxation or companies were threatened to pay an unjustified amount of taxes by municipality officials if they were unwilling to make informal payments. Furthermore, there was taxation even in case of losses (no tax carry forward was allowed), illegal exports without paying customs tariff, double taxations (Taliban and the government of Afghanistan), unfair taxation (imposing high taxes on raw materials, or low tariffs for imported substitutes of goods produced inside the country), lack of norms and standards, security, the safety of finance and banking services, lack of government support on investment or lack of legal assistance abroad, high cost of energy, unjustified approaches of imposing a sales tax. Besides, supply chain (instruments are very expensive, and the payback period is uncertain) given machinery depreciation and maintenance costs. There is no technical person to repair things. Spare parts are expensive, and the lack of technicians add to the existing problems. Some other factors of success and failure are; poor productivity, poor banking system, U.S.A. sanctions (U.S.A. sanctions on Iran increased transportation costs in Afghanistan), mafia (stolen money in Moscow, Kazakhstan), political instability,

poor economic performance, unequal opportunity (those who are linked or not linked with senior politicians), accounts receivable, and high cost of operations.

4.2.1   Hypothesis 1: Entrepreneurship Performance Depends on Access to Finance

Null Hypothesis: Entrepreneurship performance does not depend on access to finance
Alternative hypothesis: Entrepreneurship performance depends on access to finance

As explained in the theoretical part, access to finance is a critical theoretical part of the global entrepreneurship index (GEDI, 2020), the global competitiveness index (World Economic Forum, 2019), the entrepreneurship ecosystem (Malecki, 2018), and determinants of entrepreneurship developed by the OECD (OECD, nd). In this hypothesis, access to finance was used as the independent variable and rate of success as the dependent variable to test the hypothesis. However, before testing the hypothesis, it is important to introduce the variables. The rate of success is the perceived success the 161 surveyed companies have rated themselves based on their performance. The independent variable "access to finance" has been measured using six indicators: 1) loans are available in the market to acquire for business purposes; 2) In general, interest rates (spread) charged for the loans in Afghan market are reasonable; 3) The government has subsidized interest rates to make borrowing affordable; 4) there are alternative sources to finance the businesses; 5) finance sources available in the market are aligned with the local context, in particular, Islamic Banking; and 6) the banking system is functional and secure for business use.
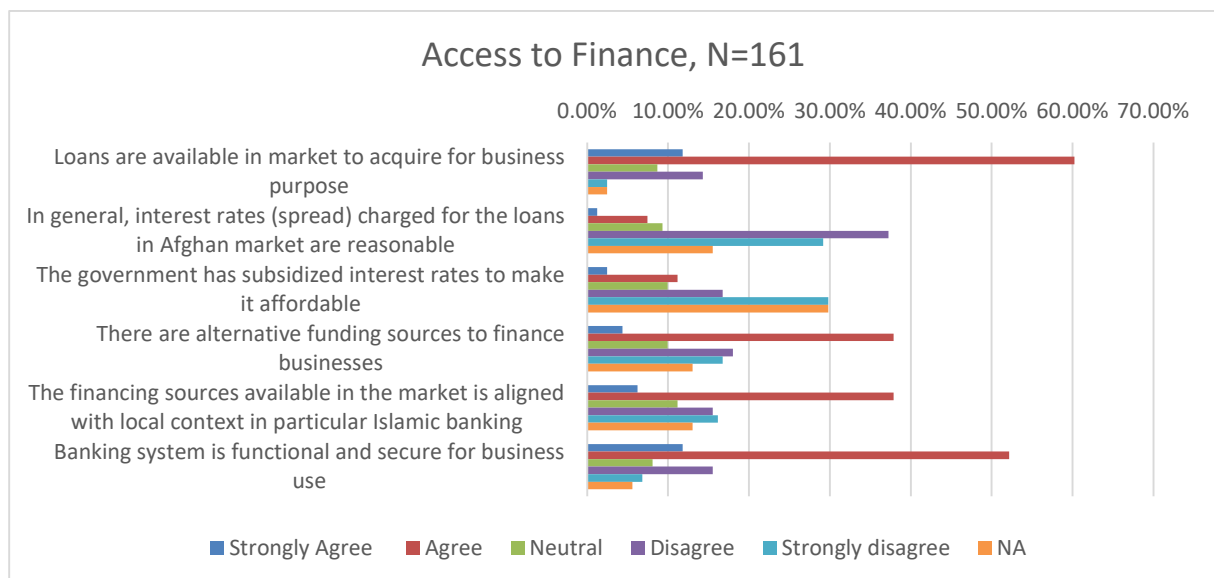
Figure 2.47a: Access to Finance

Source: Respondents' Feedback analysed by the author, 2019

As illustrated in Figure 2.47, 60.25% of the 161 companies surveyed have confirmed that loans are available in the market to acquire for business purpose, 14.29% of the respondents disagreed, 11.80% strongly agreed, 8.70% were neutral, 2.48% strongly disagreed, and 2.48% did not have any opinion. 37.27% of 161 companies disagreed with the statement that "in general, interest rates charged for the

loans in Afghan market are reasonable, 29.19% of respondents strongly disagreed, 15.53% of the respondents didn't know ("NA"), 9.32% were neutral, 7.45% agreed, and 1.24% strongly agreed. As per the records of the World Bank, interest rates were reported as almost 15% in 2017 in Afghanistan. However, it was reported at 2.7% in Canada in 2017, 12.23% in Pakistan, and 23.606% in Uzbekistan. In 2019, they were 4.35% in China, 5.283% in the USA, 19.47% in Uzbekistan, and 27.19% in Tajikistan. However, in Iran, it was recorded at 18% in 2018 (World Bank, 2017b).

In response to the indicator "The government has subsidized interest rates to make it affordable", 29.81% of respondents strongly disagreed, 29.81% did not know, 16.77% disagreed, 11.18% agreed, 9.94% were neutral, and 2.48% strongly agreed. In response to the indicator "there are alternative funding sources to finance businesses", 37.89% of respondents agreed, 18.01% disagreed, 16.77% strongly disagreed, 13.04% had no opinion, 9.94% were neutral, and 4.35% strongly agreed. The alternative sources were described as informal collateral, informal commercial paper, private equity from families, friends, and others. Unfortunately, Afghanistan does not have professional capital and money markets from which companies can benefit. Reportedly, the alternative source of financing through collateral and informal commercial papers are very expensive, even higher than bank loans. However, the process is informal and those bodies who have connections with warlords or employ armed men do this business, as a recovery of the loans will only be easy when the lender has armed men.

In response to the "The financing sources available in the market are aligned with the local context, in particular Islamic banking", 37.89% of the respondents agreed, 16.1% strongly disagreed, 15.53% disagreed, 13.04% did not have any opinion "NA", 11.18% were neutral, and 6.21% strongly agreed. There are some banks that claimed to have Islamic Banking. There was even a bank called "Islamic Bank of Afghanistan", with Islamic Banking. The financial products are Murabaha, Ijarah, Musharaka, Istisna, and Salam (IBAFG, 2019). However, those who needed financing still did not believe that banking was Islamic. For example, one of the respondents said "Ijarah" as an Islamic financial instrument allows a loan taker to get the right to use a plant or machine purchased in the Islamic Banking context. However, the loan taker or user of the asset will have to pay rental to the bank under some contracts. The respondent said, "the rent is normally set high, translated to the high cost of capital".

In response to the indicator "the banking system is functional and secure for business use", 52.17% of respondents from 161 companies agreed, 15.53% disagreed, 11.80% strongly disagreed, 8.07% were neutral, 6.83% strongly disagreed, and 5.59% did not have any opinion "NA". As shown in Figure 2.47e, of the 161 companies surveyed in Mazar and Herat, on average access to finance is 48.69% with a standard deviation of 16.79%. The minimum access is 12.50%, the maximum is 91.67%, median of 45.83%, and mode of 50%.

Mean	Standard Error	Median	Mode	Standard Deviation	Sample Variance	Kurtosis	Skewness	Minimum	Maximum	Confidence Level (95.0%)
48.69	1.32	45.83	50	16.79	282.03	-0.36	0.13	12.50	91.67	2.61

Figure 2.47e: Description of Access to Finance

Source: Respondents' Feedback analysed by the author, 2019

As shown in Figure 2.47b and Figure 2.47f, five companies have access to finance between 12.5% - 20% which consists of 3.11% of the companies in the sample size "161 companies". 19 or 14.91% of 161 companies have access to finance between 21%-30%. 28 or 17.39% of 161 companies have access to finance between 31%-40%. 45 or 27.95% of 161 companies have access to finance between 41%-50%. 26 or 16.15% of 161 companies have access to finance between 51%-60%. 20 or 12.42% of 161 companies have access to finance between 61%-70%. 13 or 8.07% of companies have access to finance between 71%-80%. 4 or 2.48% of companies have access to finance between 81%-90%. And, 0.62% or 1 company has access to finance between 91%-100%. 76.40% or 123 companies have between 12.5% - 60% access to finance.
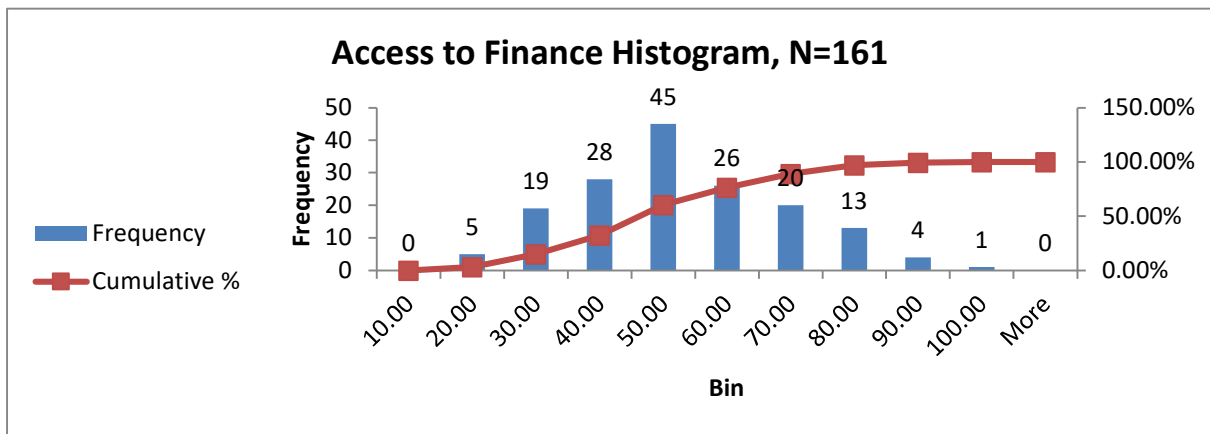

Figure 2.47b: Access to Finance Histogram

Source: Respondents' Feedback analysed by the author, 2019

Bin	Frequency	Cumulative %	% of Companies
10.00	0	0.00%	0.00%
20.00	5	3.11%	3.11%
30.00	19	14.91%	11.80%
40.00	28	32.30%	17.39%
50.00	45	60.25%	27.95%
60.00	26	76.40%	16.15%
70.00	20	88.82%	12.42%
80.00	13	96.89%	8.07%
90.00	4	99.38%	2.48%
100.00	1	100.00%	0.62%
More	0	100.00%	0.00%

Bell Curve of Access to Finance

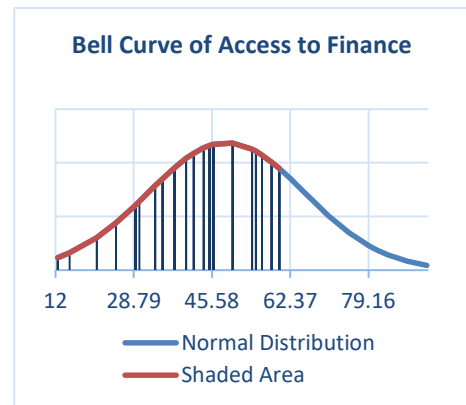Mean: 12.50, SD: 16.79, the access is between 12.50% - 60%

Figure 2.47f: Access to Finance Frequency Distribution   Figure 2.47c: Access of 123 Companies

Source: Respondents' Feedback analysed by the author, 2019

Testing the Hypothesis: A simple linear regression has been used to test the hypothesis. The alpha is set p-value <=0.05. Using the rate of success as the dependent variable and access to finance as the independent variable, there is a correlation of 0.38 between the variables. This is a weak correlation. That means, when access to finance increases, the rate of success will also be increased at the strength

of the correlation. There is an R square of 0.14, a t-stat of -5.15, and a p-value of 0.0000. _Given the rules of thumb, if a t-stat is >+2 <-2, and p value is <=0.05, it is considered statistically significant, otherwise not_. There is a statistically significant dependency between the variables. The coefficient is -0.02. Given the highest rate of success is 1 and the least is 5, the statistics explain that if access to finance moves by 1, the rate of success will move to the direction of the highest rate of success or by 0.02. Based on the regression outputs, we can conclude with rejecting the null hypothesis and accept the alternative hypothesis "entrepreneurship performance depends on access to finance".

Regression Statistics	
Multiple R	0.38
R Square	0.14
Adjusted R Square	0.14
Standard Error	0.68
Observations	161
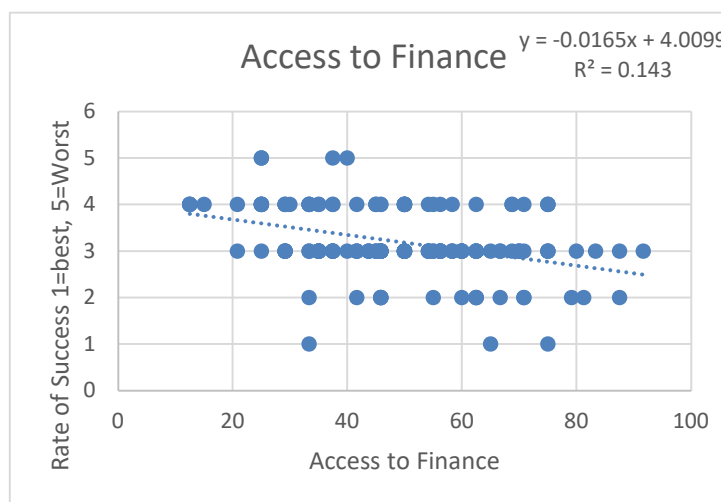
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.01	0.17	24.27	0.0000	3.68	4.34	3.68	4.34
Access to Finance	-0.02	0.00	-5.15	0.0000	-0.02	-0.01	-0.02	-0.01

Figure 2.47d: Rate of Success ~ Access to Finance

Source: Respondents' Feedback analysed by the author, 2019

Qualitative Feedback and Analysis: During bilateral interviews with a couple of companies, they expressed their concerns over access to finance as a key business constraint. The company is not able to withdraw its money. If they need to withdraw money, the banks force them to exchange their dollar notes against Afghani and get paid. Given the spread between market exchange rate and the bank offered exchange rate, the firm was not encouraged to make this exchange. This has delayed the operations (HRTe01, August 2019). The amount of time spent on payments, international transactions, fees, reliability, and accessibility was found to be inefficient. As of 2018, there are 14 banks in Afghanistan. Five of them are controlled by the state and the rest of them are privately controlled. The 14 banks have 370 domestic branches across the country (IMF, 2018b).

The company HRTap02 has identified access to finance as a key issue. Banks' interest rates are high, and banking fees are very high. "How can a business afford to pay 15% as a banking fee to be able to get access to finance?", asked the vice president of HRTap02. Those firms with bank loans are likely to

go bankrupt (HRTap02, September 2019). The World Bank has recorded lending interest rates in Afghanistan at 14.837% in 2017 reduced from 15% in 2016. In 2007, it was recorded at 18.135% (World Bank, 2017b).

The banking system was described as not good enough to make international transfers and trade for export purposes. One executive told the researcher that the firm transferred USD 200,000 to Kazakhstan to a supplier as a deposit against the trading of some commodities. Unfortunately, the commodity was never delivered. The firm followed it for 8-9 months, but there was never proper feedback from the supplier. There was also no assistance from the government side to sue the supplier (MZRhq01, July 2019). The commercial attaché of Afghanistan was contacted to assist, but did not respond. The firm's 200,000 USD was received by a supplier who has not delivered the goods to date. Reportedly, the banking system does not offer a functional, affordable, and effective business purpose letter of credit so that companies can use it to reduce their risks (MZRhq01, July 2019). The firm believed that the banking system was not yet professional in providing quality services to address business requirements. The firm pointed out that "while it has US dollars in one of its accounts, it is not able to withdraw even 2000 USD. The bank only allows it to withdraw funds if the firm exchanges it to Afghan currency". The bank's exchange rates were significantly lower than the marketrates. Therefore, every possible exchange was associated with great potential losses. Given that the Afghan economy is cash based, it needs cash to meet its liabilities (MZRhq01, July 2019). The firm also expressed the opinion that the banking fees for loans were too high. As per the firm's CEO's knowledge, those firms that took loans from banks defaulted.

The probability of defaults are considered high. Based on the experience of those companies which took loans, MZRns02 decided only to finance its operations using equity. Reportedly, the CEO of the firm witnessed his peers default. Therefore, the company's operation has remained small and has not managed to expand further. He said, "better smaller operations than going into default for wishing to expand". The CEO described the banking system as ineffective, not matching business requirements. Complex loan processes, and especially high interest rates, are discouraging (MZRns02, July 2019). "The firm with better fee structures, especially from international banks outside Afghanistan, tend to perform better", the CEO acknowledged. However, the firm emphasized that it was important to have an Islamic banking lending practice. The firm noted that "Since the economy is cash based in Afghanistan, the current banking system does not respond to business requirements". The firm was not able to withdraw even 1000 USD, similar to some other companies, from its account (MZRns02, July 2019).

The firm does not see the current banking system as fit for international trading. The firm has found it difficult to make international transfers. "Bank transfers are very slow and bureaucratic, and done only via a corresponding bank", said the executive officer of the firm. He continued, saying "Should the firm want to finance its investments from banks, the interest rates are above 15%, which is very high" (MZRhl03, July 2019).

Given a cash-based economy, such as the one dominating Afghanistan, the firm said, "the banking system does not address the needs and requirements of businesses in Afghanistan. Independent of how much the firms have in their accounts; they cannot withdraw even 1000 USD in cash. The banks only offer transfers from one account to another. Local bank transfers from one bank to another bank is as expensive as an international transfer. Withdrawal of cash is only possible when the foreign currency is converted into local currency". Since the exchange rate offered at the banks is not at market price, the firm was not inclined to withdraw money to meet their liabilities (MZRia04, July 2019). Reportedly, the bank's exchange rate of 1USD into Afghani currency was 79.80 Afs while the market price was 1 USD = 80 Afs. The firms lost resources if they got into this deal. Furthermore, the banking system was not responsive to the business needs when it comes to international banking or transfers. It was described as slow, and perceived as unsafe. Reportedly, the Maiwand Bank, a private bank, had trouble in their business performance in the last few weeks. It was rumoured that the bank would go bankrupt, as Kabul Bank did a few years ago (MZRia04, July 2019).

International banking service was described to be very poor. The firm has exports to Central Asia and market prices change from minute to minute. The CEO of the firm said, "International transfers take ages to complete, and they are very bureaucratic". Reportedly, the firm had a good trade happening between his firm and another firm in Ukraine, one international transfer with a transaction amount of USD 200,000 took the bank up to three months (MZRtj05, July 2019). After the transfer was made, the firm was asked to provide a guarantee ensuring that the goods would arrive back in Afghanistan within 45 days. The firm pointed out that "it will only start to import its goods from Ukraine to Afghanistan when it makes sense in terms of business 'law of supply and demand' and markets considering when will be the best time to import".The firm said that "it could store its goods in Ukraine cheaper than importing them to arrive in 45 days and store them in Afghanistan". Bureaucratic requirements take a lot of time to address and have a negative effect on business performance. According to the CEO, when the payment was eventually made, the banking authorities (Pashtani Bank, Milli Bank, and Da Afghanistan Bank) asked the firm for informal payments only because the payment was made (MZRtj05, July 2019).

The firm has a serious problem with access to finance. Allegedly, the firm had a loan with an annual interest rate of 15% for which it had to sell its collateral to pay its liabilities. While the firm could not make any profit from the investment which was taken as a loan from a bank to offset the high interest rates, it was associated with losses, as cost of capital or finance from the bank with an interest rate of 15% has been very high (MZRah06, July 2019). MZRsq07 being in the energy industry, the company has found that access to finance is very critical so that it could make the right business decision, since purchasing the product is less expensive in some seasons. Given the company's experience, the price is seasonal, so if the company had had access to finance, it would have performed better. The firm said that "the current banking system does not satisfy the business needs of the company in terms of access to finance, international transfers, and other business purposes" (MZRsq07, July 2019).

MZRpha08, which trades in consumer staples, mainly cooking oil, wheat, and flour, acknowledged that the banking system was not effective. In particular, cost of capital via bank loans is very expensive. Therefore, the firm has identified alternative ways to look to finance its investment projects, through equity and partnership. The firm also expressed its concern about international banking transfers. The firm said, "international transfers are normally delayed, complex, bureaucratic and time consuming" (MZRpha08, July 2019). They reported that domestic banks are not linked with other banks in other countries, so transfers are normally processed through a corresponding bank. This makes the cost of money transfers more expensive and slower.

4.2.2 Hypothesis 2: Entrepreneurship Performance Depends on Market Conditions and Business Environment

Null Hypothesis: Entrepreneurship Performance does not Depend on Market Conditions and Business Environment

Alternative Hypothesis: Entrepreneurship Performance Depends on Market Conditions and Business Environment

As explained in the theoretical part, market conditions and business environment (MCBE) are a critical theoretical part of the global entrepreneurship index (GEDI, 2020), the global competitiveness index (World Economic Forum, 2019), the entrepreneurship ecosystem (Malecki, 2018), and determinants of entrepreneurship developed by the OECD (OECD, nd). In this hypothesis, market conditions and business environment have been used as the independent variable and rate of success as the dependent variable to test the hypothesis. However, before testing the hypothesis, it is important to introduce the variables. The rate of success is the perceived success the 161 surveyed companies have rated themselves based on their performance. The independent variable "market conditions and business environment" were measured using six indicators: 1) The government procures and supplies its demanded products from the domestic market; 2) The domestic market addresses the demanded outputs of households; 3) There are barriers for investment and trading in domestic markets; 4) There are barriers to enter/access global markets for investment and trading; 5) Competence and quality of logistics services are good enough for business performance; and 6) There are many investment and trading opportunities.

Figure 2.49a summarizes market conditions and business environment. In response to the first indicator, 48% of the respondents from 161 companies agreed that the government procures and supplies its demanded products from the domestic market. However, 17% of respondents from 161 companies disagreed with the statement, 12% were neutral, 8% did not have any opinion "NA", 7% strongly disagreed, and 7% strongly agreed. In response to the second indicator, 52% of the respondents from 161 companies agreed that the domestic market addressed the demand outputs of households, 20% disagreed, 14% strongly agreed, 7% were neutral, 4% strongly disagreed, and 2% had no opinion "NA". In response to the third indicator, 55% of the respondents from 161 companies agreed that there are barriers to enter/access global market for investment and trading, 32% strongly agreed, 9% did not have any opinion "NA", 6% disagreed, 2% strongly disagreed, and 2% were neutral. In response to the

fifth indicator, 31% of the respondents from 161 companies agreed that the competence and quality of logistic services are good enough for business performance. However, 30% of respondents disagreed with the statement, 19% were neutral, 10% had no opinion "NA", 6% strongly disagreed, and 4% strongly agreed. In response to the last indicator, 51% of respondents from 161 companies agreed that there are many investment and trading opportunities. 20% of respondents disagreed with the statement, 17% strongly agreed, 6% were neutral, 3% strongly agreed, and 2% had no opinion "NA".
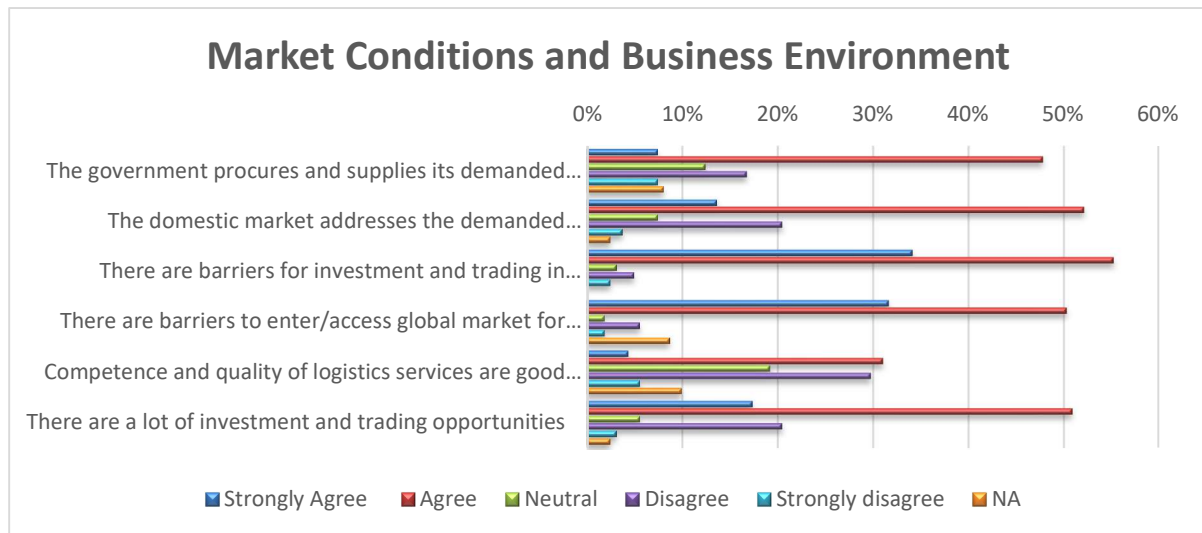

Figure 2.49a: Market Conditions and Business Environment

Source: Respondents' Feedback analysed by the author, 2019

Mean	Standard Error	Median	Mode	Standard Deviation	Sample Variance	Kurto-sis	Skew-ness	Mini-mum	Maxi-mum	Confidence Level (95.0%)
65.77	1.02	66.67	75	12.89	166.03	0.84	-0.32	25.00	100	2.01

Figure 2.49g: Market Conditions and Business Environment Description

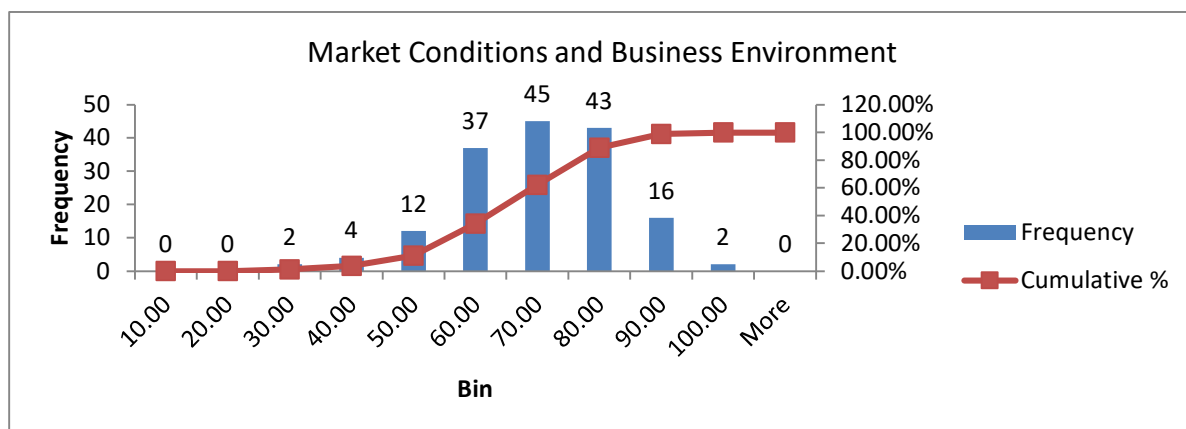Source: Respondents' Feedback analysed by the author, 2019

Figure 2.49b: Market Conditions and Business Environment

Source: Respondents' Feedback analysed by the author, 2019

As shown in Figure 2.49g, access to the market conditions and business environment has an average rate of 65.77, a median of 66.66, a mode of 75, a standard deviation of 12.89, a minimum of 25, and a

maximum rate of 100. As illustrated in Figure 2.49b and 2.49c, 2 or 1.24% of 161 companies have rated their MCBE between 21%-30% from a potential rate of 100%. 4 or 2.48% of companies from 161 have rated their MCBE between 31%-40% from a potential 100%. 12 or 7.45% of companies have rated MCBE between 41%-50% from a potential 100%. 37 or 22.98% of companies have rated their MCBE between 51-60 from a potential 100 points. 45 or 27.95% of companies have rated their MCBE between 61%-70%. 43 or 26.71% of companies have rated their MCBE between 71%-80%. 9 or 9.95% of companies have rated their MCBE between 81-90 from potential 100% points. 2 1.24% of companies have rated their MCBE between 91%-100% from potential 100%.

BIN	FREQUENCY	CUMULATIVE %	% OF COMPANIES
10.00	0	0.00%	*0.00%*
20.00	0	0.00%	0.00%
30.00	2	1.24%	1.24%
40.00	4	3.73%	2.48%
50.00	12	11.18%	7.45%
60.00	37	34.16%	22.98%
70.00	45	62.11%	27.95%
80.00	43	88.82%	26.71%
90.00	16	98.76%	9.94%
100.00	2	100.00%	1.24%
MORE	0	100.00%	0.00%

Figure 2.49c: Market Conditions and Business Environment Frequency Distribution

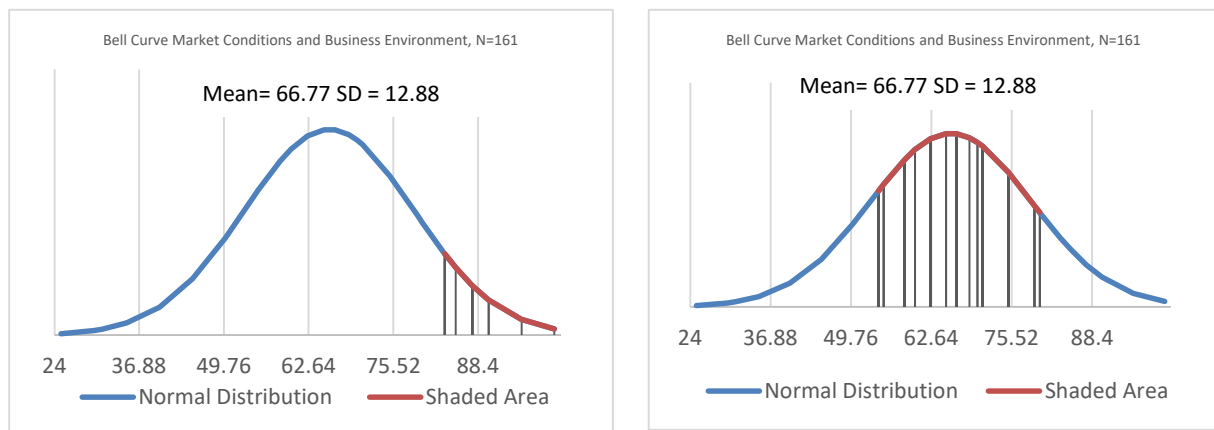Source: Respondents' Feedback analysed by the author, 2019

Figure 2.49d: 16 Companies Rating = 91-100 Points   Figure 2.49e: 125 Companies Rating=51-80 Points

Source: Respondents' Feedback analysed by the author, 2019

As illustrated in Figure 2.49d and 2.49e, 16 companies have rated the market conditions and business environment between 91-100 points from potential 100 points while 125 companies have rated the variable between 51-80 points from potential 100 points.

Hypothesis Testing: Through a simple linear regression, the rate of success was used as the dependent variable and market conditions and business environment as the independent variable with the alpha

set at <=0.05. There is a correlation of 0.32 between the variables. That means, when market condi-tions and business environment are improved, the rate of success also improves at the strength of 0.32 as a correlation. There is an R square of 0.10, a t-stat of -4.19, and a p-value of 0.000. _Given the rule of thumb if t-stat is >+2 and <-2, and p-value is =<0.05, then there is a statistical dependency between the variable_. We can conclude that there is a statistical dependency between the variables. The coefficient is -0.02. That means when market conditions and business environment as the independent variable move by 1, the rate of success moves by 0.02 towards rate of success. _Therefore, we can reject the null hypothesis and accept the alternative hypothesis "Entrepreneurship Performance Depends on Market Conditions and Business Environment"._

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.32
R Square	0.10
Adjusted R Square	0.09
Standard Error	0.70
Observations	161
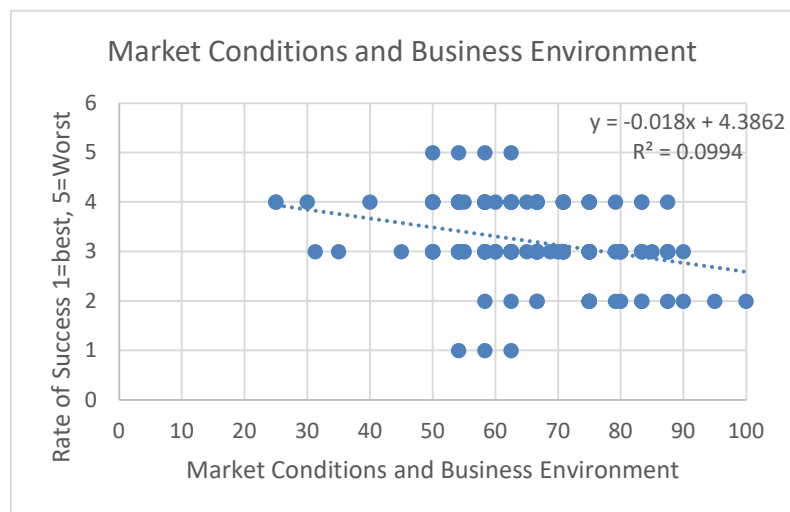
	Coeffi-cients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.39	0.29	15.26	0.000	3.82	4.95	3.82	4.95
Markt Con& Bus.Env	-0.018	0.00	-4.19	0.000	-0.03	-0.01	-0.03	-0.01

Figure 2.49f: Rate of Success ~ Market Cond. and Business Env

Source: Respondents' Feedback analysed by the author, 2019

Qualitative Feedback and Analysis: Access to the international market has been a key issue for HRTap02. The mismatch of Afghanistan's regulations to international standards, has created certain non-tariff trade barriers for the company, which are difficult to overcome, and make competition dif-ficult, even though the company offers quality products (HRTap02, September 2019). For example, the mismatch of norms and standards to meet the international market standards is a key trading barrier. Respondents reported that Afghanistan does not have a good definition of norms and standards for all products. It is beyond the capacity of a company in Afghanistan to take initiative to fight this barrier by itself. This has created problems for exports. Without the proactive engagement of government, the private sector cannot be promoted (HRTap02, September 2019). MZRsq07 described norms and standards in the same terms as HRTap02. "There are serious barriers in accessing international markets because of a mismatch of regulations, lack of government political support, and the difficulty building

partnerships with potential global partners rather than only regional ones", said the CEO of the company. (MZRTsq07, July 2019).

Access to international markets has remained a critical trading barrier for the firm. There are certain market barriers because of which they barely have access to international markets. For example, if the company would like to explore European markets for potential exports and imports, there is no means or system to explore the market in terms of consultation, market assessment, finding a trustworthy counterpart, etc (MZTm09, July 2019). MZRhq01, another company, has identified various trading barriers to access international markets. The barriers were described as accessibility in terms of the extremely difficult visa regime, lack of legal assistance from the government, etc. "Given that Afghanistan does not have any institutional assistance to trading, suppliers always treat Afghan customers as a lower standard," said the CEO of the firm (MZRhq01, July 2019). Access to international markets is limited. Afghan firms have access mainly to Iran, Pakistan, Uzbekistan, and other neighbouring countries, which are considered secondary markets for the goods. (MZRns02, July 2019).

MZRgt09 has also found access to international markets extremely difficult. A key issue is getting a visa which was described to be very complex (MZRgt09, July 2019). "Afghan companies do have serious problems getting foreign visas. While the company has a turnover of almost half a million dollars a year with Kazakhstan, getting a visa from the country costs around 5000-6000 dollars", said the CEO of the company (MZRia04, July 2019). There are international trading barriers in terms of accessing the different markets. MZRah06 expressed its deep concern in terms of access to international markets. This issue was described as a significant number of trade barriers, including lack of cooperation of Afghanistan government officials, etc. The company emphasized that "if the firm goes to government officials to help it make foreign trades, it has to make some informal payments, without which it will not work, or they ask for an informal partnership as compensation for their assistance" (MZRia04, July 2019). Furthermore, getting a visa was described as very complicated. It costs thousands of dollars to get a visa except for neighbouring countries .

HRTmh03 described its market conditions. Given the low purchasing power of households, individuals are not willing to pay a premium price for quality services. The low-income level, economic performance, and purchasing power of the country have been key detrimental factors.They report that the charges for the ultrasound are 150 Afs fees which is less than €3 in Afghanistan. Comparing some countries in the region: in India in the Apollo hospital, an ultrasound fee was over 1200 Indian Rupees, which is around €14 (Apollo Hospital, 2020). In Dubai, DRHC, a radiology and imaging company offers the same services at 800 Dirhams, which equals almost €195 (DRHC, 2016); in Karachi, Pakistan, it was reported between 1200-3000 Pakistani rupees, which is an equivalent of €6-€17 (Taj Consultants Clinics Laboratory 2020). At the end of the day, the firm in Afghanistan which offers health care services is left with a slim margin, which hardly covers its operational costs and depreciation costs of the equipment (HRTmh03). The company highlighted that due to the low purchasing power of households, individuals will not undergo medical treatment unless they are forced to do so. This has contributed to the underperformance of the company (HRTmh03, August 2019). HRTafp04 expressed its concerns

about the increasing poverty rate, unemployment, and insecurity. The increase in the poverty rate and unemployment rate contributed to insecurity in some parts of the country, so the company had to close down some of its stores, which countrywide employed over 1,000 people. The company has reduced its stores to 68, which employed 700 people at the time of the interviews. This indicates a reduction of 30% in the workforce due to economic performance across the country (HRTafp04, September 2019). Company HRT74 has been performing poorly due to the economic performance of the country. Its customers were described to be normally those whose income depends on agricultural harvests. In years when the harvest is bad, the company has had its cash flows reduced significantly (HRT74, 2019).

4.2.3   Hypothesis 3: Entrepreneurship Performance Depends on Good Infrastructure

Null Hypothesis: Entrepreneurship Performance does not depend on Good Infrastructure
Alternative Hypothesis: Entrepreneurship Performance Depends on Good Infrastructure

As explained in the theoretical part, good infrastructure is a critical theoretical part of the global entrepreneurship index (GEDI, 2020), the global competitiveness index (World Economic Forum, 2019), the entrepreneurship ecosystem (Malecki, 2018), and determinants of entrepreneurship developed by the OECD (OECD, nd). In this hypothesis, infrastructure has been used as the independent variable and rate of success as the dependent variable to test the hypothesis. before testing the hypothesis, it is important to introduce the variables. The rate of success is the perceived success the 161 surveyed companies have rated themselves based on their performance. The independent variable "infrastructure" has been measured using four indicators: 1) Border infrastructure and customs administration including electric systems have been strengthened for business efficiency both for imports and exports; 2) Overall, business logistics services, transport related infrastructure, including timeliness of goods shipment to trade destinations, are available, reliable and effective; 3) The business has access to energy, including reliable electricity with the right capacity fit for business purposes; and 4) Internet connection is reliable, accessible, and affordable, with a good speed which can satisfy business needs.

As shown in Figure 2.50d, in response to the first indicator, 32% of respondents from 161 companies disagreed that border infrastructure and customs administration have been strengthened for business efficiency both for imports and exports. However, 30% of respondents agreed with the statement, 17% strongly disagreed, 13% had a neutral opinion, 4% of respondents strongly agreed, and 4% had no opinion "NA". In response to the second indicator, 37% of respondents from 161 companies disagreed that overall, business logistic services, transport related infrastructure including timeliness of goods shipment to trade destinations are available, reliable, and effective. However, 34% of respondents agreed with the statement, 12% had a neutral or average opinion, 11% strongly agreed, 4% had no opinion "NA", and 2% strongly agreed.
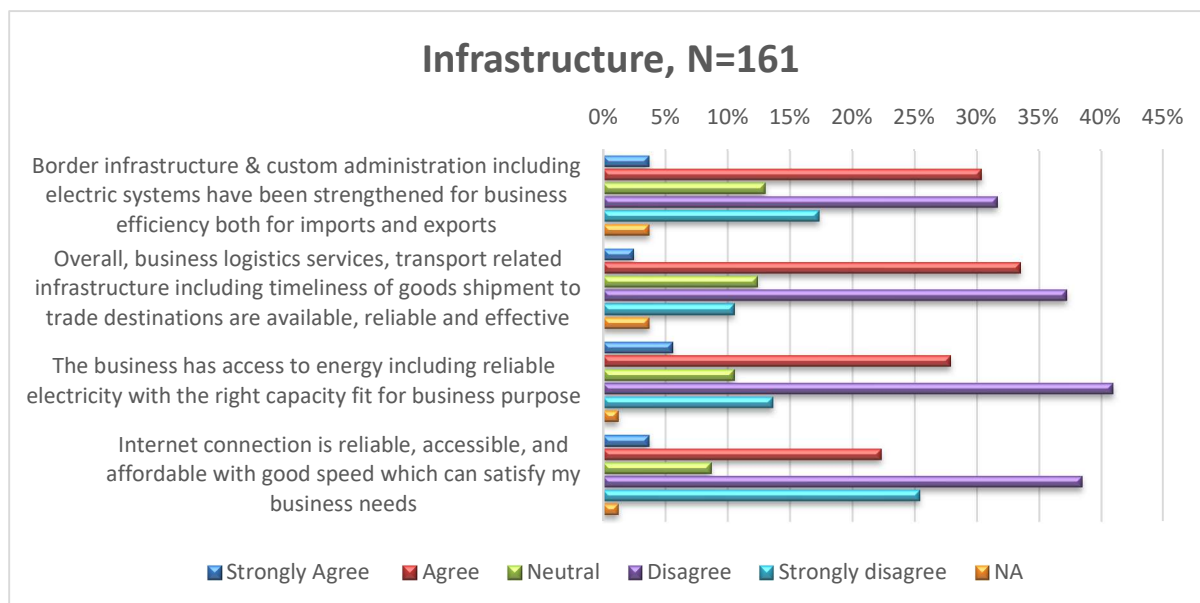
Figure 2.50d: Access to Infrastructure

Source: Respondents' Feedback analysed by the author, 2019

In response to the third indicator, 41% of respondents from 161 companies disagreed that the business has access to energy including reliable electricity with the right capacity fit for business purposes. However, 28% agreed with the statement, 14% strongly disagreed, 11% had a neutral opinion, 6% agreed, and 1% had no opinion "NA". In response to the fourth indicator, 39% of respondents from 161 companies disagreed that internet connection is reliable, accessible, and affordable with a good speed which can satisfy business needs. However, 25% strongly disagreed with the statement, 22% agreed, 9% had a neutral opinion, 4% strongly agreed, and 1% had no opinion "NA".

The companies reported that electricity and its price is a business constraint. The industrial electricity price was considered very high. They paid 12 Afs per KW or almost €0.26 per KW, and they described electricity as unreliable, often with poor voltage. There were frequent power outages, requiring the company to turn on its diesel generator to run the machines. This requires the use of diesel fuel, so using generator electricity increases operational costs (HRTe01, August 2019). High energy costs, in particular industrial electricity prices, were quite high for a company providing health care services. A significant percentage of the operating costs were electricity charges (HRTmh03, August 2019). The cost of electricity was also seen as a business constraint in Mazar. Its reliability was also assessed as poor. The firm reported that there were frequent power cut offs, as well as low voltage, which was not usable without a transformer (MZRns02, July 2019). The average non-household electricity tariff in 27 countries of the European Union was recorded at €0.0836 (Eurostat, 2020).

Mean	Standard Error	Median	Mode	Standard Deviation	Sample Variance	Kurtosis	Skewness	Minimum	Maximum	Confidence Level (95.0%)
41.34	1.51	41.67	37.5	19.15	366.78	-0.59	-0.08	0	75	2.98

Figure 2.50e: Infrastructure Description

Source: Respondents' Feedback analysed by the author, 2019

Given that the highest score is 100%, as indicated above in Figure 2.50e, the average rating of infrastructure was 41.34%. The median is 41.67%, the mode is 37.5%, the standard deviation is 19.15%, with a minimum of 0% and a maximum of 75%. As shown in Figure 2.50f, the distribution of infrastructure seems almost normal. 5.59% or 9 companies have rated its access to infrastructure between 0%-10%. 9.32% or 15 companies have rated their access between 11% -20%. 11.80% or 19 companies have rated their access between 21%-30%. 22.98% or 37 companies have rated their access between 31%-40%. 20.50% or 33 companies have rated their access between 41%-50%. 11.80% of companies have rated their access between 51%-60%. 10.56% or 17 companies have rated their access between 61%-70%. 7.45% or 12 companies have rated their access between 71%-80%. As shown in Figure 2.50g and 2.50h, 70 companies 'access to infrastructure has been between 31%-50% from a potential score of 100%. And, 16 companies access to infrastructure has been between 51-75 from a potential score of 100 which is quite low.
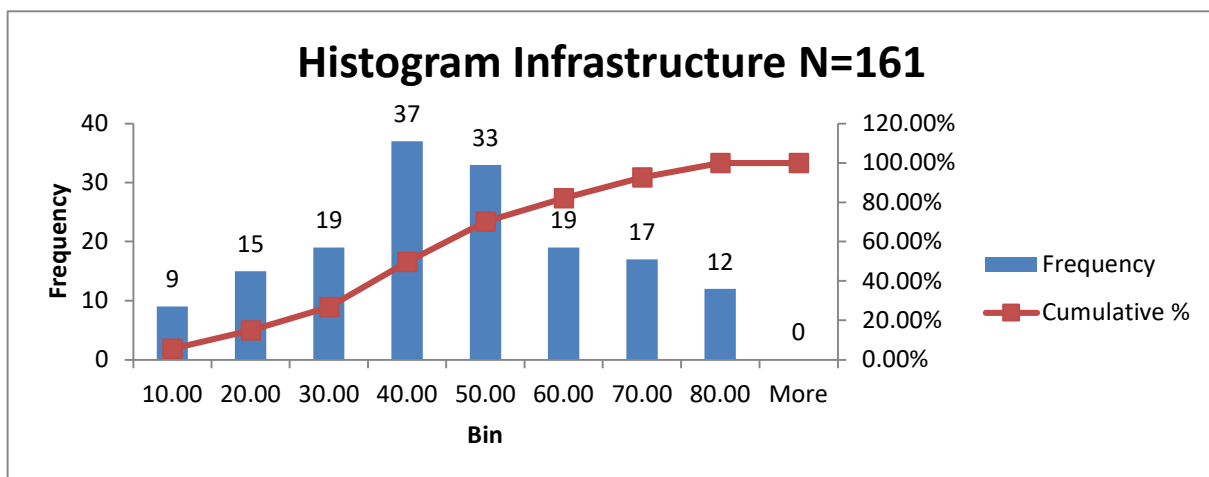

Figure 2.50f: Infrastructure Frequency of Distribution

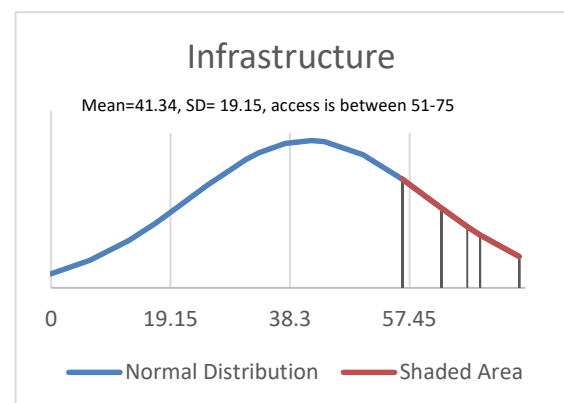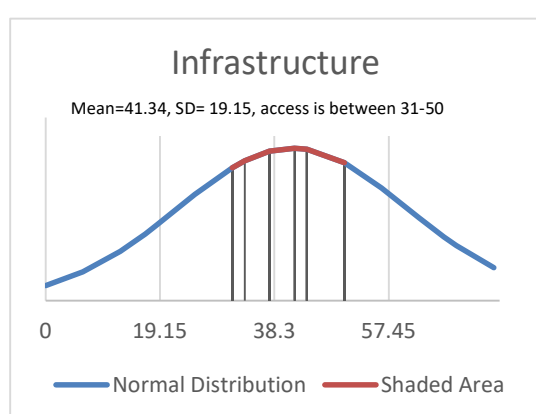Source: Respondents' Feedback analysed by the author, 2019

Figure 2.50g: 70 Companies Access to Infra.   Figure 2.50h: 16 companies Access to Infra.

Source: Respondents' Feedback analysed by the author, 2019

Hypothesis Test: Through a single linear regression, the rate of success was the dependent variable and infrastructure wasthe independent variable. The alpha was set <=0.05. There is a correlation of

0.51 between the variables. That means, when access to infrastructure is increased/improved, the rate of success also improves at the strength of 0.51 which is considered semi strong correlation between the variables. There is an R square of 0.26, a t-stat of -7.48, and a p-value of 0.0000. Given the rules of thumb, when t-stat is >+2 <-2 and p value is =<0.05, it is considered statistically significant. Therefore, there is a dependency between the variables. The coefficient is -0.02. That means, when access to infrastructure improves or moves by 1, the rate of success improves by 0.02. *To conclude, we can reject the null hypothesis and accept the alternative hypothesis "Entrepreneurship Performance depends on good infrastructure".*

Regression Statistics	
Multiple R	0.51
R Square	0.26
Adjusted R Square	0.26
Standard Error	0.63
Observations	161

Infrastructure $y = -0.0196x + 4.0135$ $R^2 = 0.2603$
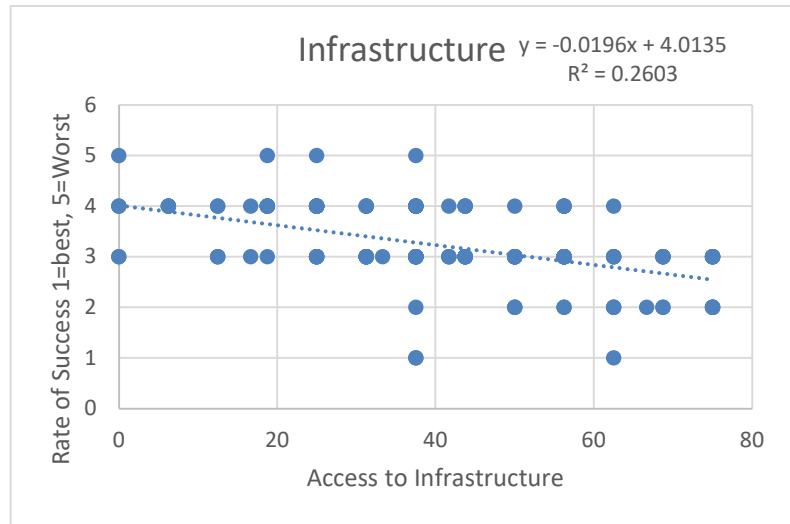
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.01	0.12	33.71	0.0000	3.78	4.25	3.78	4.25
Infrastructure	-0.02	0.00	-7.48	0.0000	-0.02	-0.01	-0.02	-0.01

Figure 2.50i: Rate of Success ~ Infrastructure

Source: Respondents' Feedback analysed by the author, 2019

Qualitative Feedback and Analysis: MZRhq01 claimed that "there are discrepancies in the law enforcement of transportation in different regions of Afghanistan. When companies transport goods from the Torkham border in the east of Afghanistan, the trucks are loaded up to 80 tons. That means economy of scale is applied, more units of goods are loaded in one truck, therefore transportation costs are lower in the east and south than in the north of Afghanistan". He added that "in the north of Afghanistan, before the arrival of goods in Mazar, the load of one truck is divided into three. This increases transportation costs". Apparently, the same goods are transported back to Kabul, using the same route, and the loads from the three trucks are loaded onto one truck. The CEO shared this case as a double standard in transportation regulations. (MZRhq01, July 2019). Domestic transportation does not have any insurance. The company reported cases where the owner of a truck sold the goods to a third party, and it was difficult to get the goods back. Unfortunately, there were cases when the truck driver sold the goods and the firm had to bear the costs or wait for a long time until a possible settlement was reached (MZRhq01, July 2019). The CEO of MZRns02 said, "The firms with connections and

networks with government officials are given preference over the firms without networks and connections in customs offices to use the transportation facilities at the borders." The CEO continued, saying "The goods of companies with political affiliation do not have to be in the queue like those of other firms. They will be processed without any delay. The transportation facilities are also put in the services of those companies with political affiliation, as required". Reportedly, the firms with networks and affiliations with politicians use the conditions in their favour as an unfair competitive advantage against other firms. The firms with an unfair competitive advantage were described as mafia (MZRns02, July 2019). Given the in-depth influence of the mafia in business, there is a huge problem in transportation and border infrastructure. Apparently, the company described as mafia are owned by former Jihadi military commanders. "They have their own people in those institutions and use public properties for their own benefit", said the firm's CEO (MZRns02, July 2019). "The Jihadi commanders can have whatever they want. And companies without affiliations will have to wait until the prioritized business issues (those of firms belonging to the Jihadi commanders) are done first", the CEO added. He described domestic transportation as having serious problems – it is ineffective, inefficient, and unreliable, rarely delivering goods on schedule. Since there is no insurance, the company has experienced goods lost while transporting goods inside Afghanistan (MZRns02, July 2019).

There are trade barriers, partially due to transportation issues. "If a firm would like to export goods to a foreign country, transportation is not yet competent enough to ensure a timely and scheduled delivery of the goods to the destination", said the company's executive officer. Normally, companies will have to use the transit route via Pakistan or Iran, which are associated with many barriers. Transportation was described to be ineffective and not cost effective (MZRhl03, July 2019). The capacity of customs offices in terms of business processed was assessed as quite weak. The 24-hour capacity to offload goods was reported to be only 20 containers. After 24 hours, the firms have to pay penalties for the late offloading. This increases operational costs (MZRhl03, July 2019). Customs services were described as very weak; without informal payment, things would not move. Unfortunately, due to poor functioning of the internet, online systems are not part of the business operations. In general, firms spend a lot of time dealing with things in person (MZRhl03, July 2019). Online sales and online business applications are important themes to help business operate efficiently. MZRia04's CEO claimed, "When there is a backup of goods at the customs office, the processing of one company's goods is preferred over others depending on their relationships, the amount of bribes paid, etc", (MZRia04, July 2019). A competent and professional transportation system and border management are considered key concerns. There are not sufficient services to meet demand. MZRtj05 added that if the Hairatan port has more than 50 trailers wagons in 24 hours, it does not have the capacity to process the goods in terms of transportation issues (MZRtj05, July 2019). MZRah06 described transportation costs as very expensive from the Hairatan port to Mazar. The transportation cost from Mazar – Kabul which is almost 430 km – is cheaper in proportion to 80 KM from Hairatan – Mazar. This higher price was attributed to the fact that there are only a few units of transportation to deliver freight from the port to Mazar (MZRtj05, July 2019).

MZRpha08 also described the shipment of goods as inefficient. "Border management has poor services and each trailer costs 4000 Afs to be processed. Without informal payment, the companies do not have any choice to get things done", said the company's CEO (MZRpha08, July 2019).

The capacity of customs offices in terms of business process were assessed as weak. The 24-hour capacity to offload goods was reported to be only 20 trailers. After 24 hours, the firms have to pay penalties for offloading. This increases operational costs (MZRhl03, July 2019). Customs services were described to be very weak; without informal payment, things would not move. Unfortunately, due to poor infrastructural systems in terms of the internet, online systems are not part of the business operations. Overall, the firms spend a lot of time dealing with things in person (MZRhl03, July 2019). Online sales and online business applications are important themes to make business operationally efficient.

HRTap02 added that it has major problems with infrastructure in Afghanistan, namely, border controls, customs services, and transportation. A few months ago, the firm exported three containers of goods to a country abroad. Rather than having the goods processed in a day or so, it took the customs office a week to process them. The efficiency and productivity of goods processing are a matter of concern. Secondly, the imported goods do not have insurance. Goods are insured until the borders of Afghanistan, but not beyond that (HRTap02, September 2019). At the time of this interview, the company reported that "it has not had energy or electricity to run the day to day businessfor the last ten days". This has undermined the normal operations of the business. In September 2019, the firm claimed that there was ten-day outage of electricity due to some technical problems. The responsible government agency (Brishna) tried to fix the issues for ten days and managed to reconnect the electricity to the Herat industrial park. The industrial park had electricity for just a few hours, after which there was another power pole blown up. The company had to use petrol to run a generator to get its required electricity. However, using petrol to run a generator to produce electricity increases operational costs. Additional costs will have to be reflected in the goods prices offered in the markets. This puts the company in a difficult situation to compete with substitutes in terms of pricing. The second scenario will be if the company does not transfer the costs to the prices of the goods, it will cause the company to underperform. In both situations, it will reduce the company's bottom line. (HRTap02, September 2019).

"The business environment is still not fit for online payment, e-services, e-banking, or managing the value chain and supply chain through the internet, etc", said the company's vice president. For example, if the company had to transfer money to its suppliers, it had to go in-person to a bank and transfer money. Or customers have to pay in cash. Unfortunately, there is still a cash based economy in Afghanistan. In addition to the problems above, there are logistical problems as well, if a firm needs to export items, in terms of tracking, etc (HRTap02, September 2019).

In addition, to the problems of getting electricity, there are major infrastructure issues in terms of other basic services including but not limited to security, water, internet connections, etc. Two respondents said that the poor services are almost marketing fraud, in the sense that customers pay for a quality that does not exist (MZRhq01, MZRia04, July 2019). As illustrated in Figure 2.50, Afghanistan has a percentile ranking of 9.70% in the ICT development index. The latter measures three variables

namely ICT access, ICT usage, and ICT skills based on 11 indicators. Afghanistan has a percentile ranking of 9.70% in comparison to the economies around the world. This score is considered one of the lowest in the world. With a global score of 1.59 from a potential 10, Afghanistan ranked 159th best in the ICT development index, ahead of only 17 countries in the world in 2017 (ITU 2017).
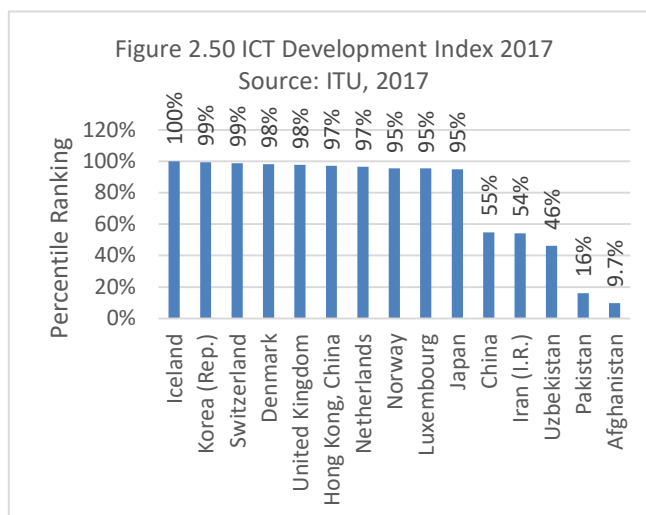
Logistical services and competence were found inefficient (MZRtj05, July 2019). Internet connectivity, costs, and reliability were found ineffective, not fit for business (MZRm09, MZRhl03, MZRpha08, MZRhq01, and MZRtj05, July 2019). Reliable internet would cost a minimum of 500-1000 USD per month, which is hardly affordable for an average business. Furthermore, electricity is supplied at a low voltage, which makes it unusable without a transformer, besides which there is constant service disruption.

Country	Z-Score 2007	Z-Score 2010	Z-Score of 2012	Z-score 2014	Z-Score 2016	Z-Score 2018
Afghanistan	- 2.02	- 0.60	- 0.56	- 0.95	- 1.09	- 1.63
China	0.71	0.93	1.04	0.82	0.97	1.08
Iran	- 0.09	- 0.60	- 0.80	- 4.59	- 0.58	- 0.07
Pakistan	- 0.23	- 0.87	0.35	0.20	- 0.07	- 0.95
Tajikistan	- 1.04	- 1.12	- 0.38	- 0.63	- 1.21	- 1.30
Turkmenistan	- 4.12	- 0.73	- 4.60	- 0.69	- 1.10	- 0.55
Uzbekistan	- 0.99	- 0.63	- 0.70	- 1.55	- 0.60	- 0.99
Average	**2.55**	**2.59**	**2.65**	**2.72**	**2.70**	**2.67**
St. Deviation	**0.62**	**0.62**	**0.58**	**0.59**	**0.64**	**0.58**

Figure 2.50b: Afghanistan Comparative Logistics Performance Index 2007-2018

Source: World Bank, 2018e, analysed by the author

Figure 2.50b and 2.50c detail the logistics services in Afghanistan based on six indicators: 1) customs; 2) infrastructure; 3) international shipments; 4) logistics competence; 5) tracking and tracing; and 6) timeliness. The table compares Afghanistan relative to the rest of the world between 2007-2018. In 2018, from a potential scoreof 5, Afghanistan was at 1.95, ranking the country 160th in the world. With a mean of 2.67 and a standard deviation of 0.58, Afghanistan is 1.63 standard deviation below the

mean in 2018. The country's performance improved in 2018 in comparison to 2008, but it still has a lot to improve.

To break down the logistics performance index as shown in Figure 2.44e, on the *performance of logistics quality and competence* in Afghanistan which is an indicator of the logistics performance index. It evaluates the quality and competence of road, rail, airport, airport transport, warehousing, trade loading, distri-
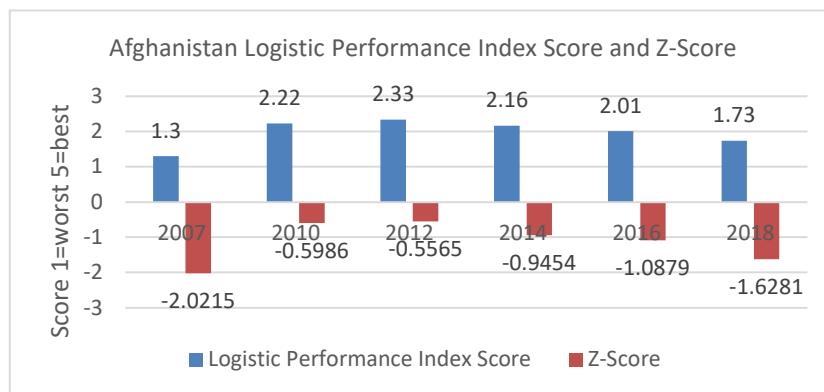

Figure 2.50c: Afghanistan Logistic Performance Index and Z-Score
Source: World Bank, 2018 analysed by the author

bution, customs agencies, quality of inspecting agencies, customs brokers, trade and transport associations, and consignee/shippers. Afghanistan has a global score of 1.92 out of a potential score of 5 in 2018. This means the country ranked 158 in the world. With a global mean score of 2.82, a standard deviation of 0.61, and a Z-score of -1.47, Afghanistan is 1.47 standard deviation below the mean. That means the country is better than 7.08% of economies around the world (World Bank, 2018e). From a potential score of 5, Afghanistan has a score of 1.73 in 2018 in customs performance. As an indicator of the logistics performance index, it encompasses border management and customs clearance efficiency. With a mean of 2.67 and a standard deviation of 0.58, Afghanistan is 1.62 standard deviations below the mean in terms of customs performance in comparison to the rest of the world. That means Afghanistan has a better performance than 5.26% of the world'scountries, as shown in Figure 2.44b.

Out of a potential 5 score, Afghanistan received 1.81 on infrastructure. As an indicator of the logistics performance index, it measures quality of trade- and transport-related infrastructure. Afghanistan is below the average of East Asia and Pacific and South Asia, as shown in Figure 2.44a. With a mean of 2.72 and a standard deviation of 0.67, Afghanistan is 1.36 standard deviation below the mean. That means the country has a better performance than 8.69% of the countries in the world, as shown in Figure 2.44c. From a potential score of 5, Afghanistan scored 2.10 on international shipments. As an indicator of the logistics performance index, it measures the ease of arranging competitively priced international shipments. Again, the country is below East Asia and Pacific and South Asia as shown in Figure 2.44a. With a mean of 2.83 and a standard deviation of 0.52, the country is 1.41 standard deviation below the mean, as shown in Figure 2.44d. On tracking and tracing as an indicator of the logistic performance index, it measures the ability to track and trace consignments. Afghanistan had a score of 1.70 in 2018. With a mean of 2.90 and a standard deviation of 0.61, the country is 1.96 standard deviations below the mean. That means the country has a lower performance than 97.5% of the countries in the world, as shown in Figure 2.44f. And of a potential score of 5, Afghanistan has a global score of 2.38 on timeliness as an indicator of the logistics performance index in 2018. With a mean of 3.24

and a standard deviation of 0.58, the country is 1.48 standard deviations below the mean. That means the country has a lower performance than 93.06% of the countries around the world in 2018.
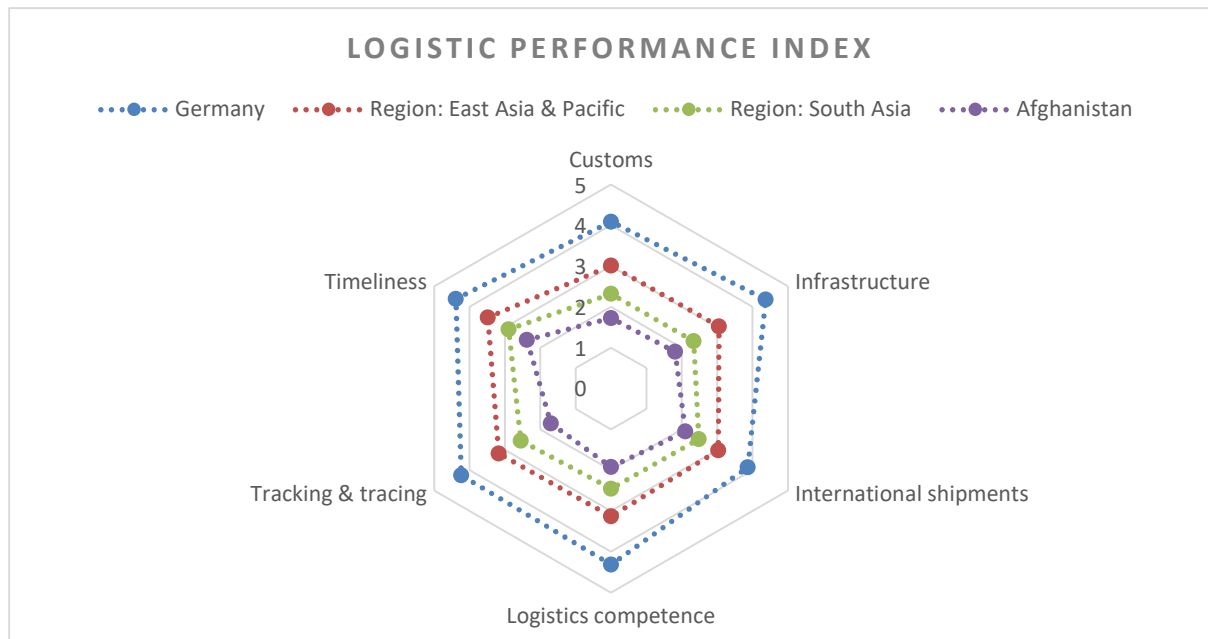
2.44a: Comparative Logistics performance index of Afghanistan 2018

Source: World Bank, 2018 analysed by the author

4.2.4 Hypothesis 4: Entrepreneurship Depends on Access to Skills

Null Hypothesis: Entrepreneurship Performance does not depend on Access to Skills

Alternative Hypothesis: Null Hypothesis: Entrepreneurship Performance depends on Access to Skills

As explained in the theoretical part, "Access to Skills" is a critical theoretical part of the global entrepreneurship index (GEDI, 2020), the global competitiveness index (World Economic Forum, 2019), the entrepreneurship ecosystem (Malecki, 2018), and determinants of entrepreneurship developed by the OECD (OECD, nd). In this hypothesis, access to skills has been used as the independent variable and rate of success as the dependent variable to test the hypothesis. However, before testing the hypothesis, it is important to introduce the variables. The rate of success is the perceived success the 161 surveyed companies have rated themselves based on their performance. The independent variable "access to skills" has been measured using four indicators: 1) The business has access to specialized or skilled labour; 2) The business considers itself to have very good entrepreneurial skills; 3) The business employees get professional training as needed; and 4) The business perceives itself to have a good calculation of risks and return on investments.

As shown in Figure 2.51a, in response to the first indicator, 52% of 161 companies agreed that their businesses have access to skills, however, 20% disagreed with the statement, 10% strongly agreed, 7% had neutral opinions, 6% strongly disagreed, and 4% had no opinion "NA". In response to the second indicator, 53% of 161 companies agreed that their businesses consider themselves to have very good

entrepreneurial skills. However, 17% had neutral opinions with the statement, 15% disagreed, 10% strongly agreed, 4% had no opinion "NA", and 2% strongly disagreed. In response to the third indicator, 43% of 161 companies agreed that their employees get professional training as needed. However, 22% disagreed with the statement, 17% were neutral, 7% strongly agreed, 7% strongly disagreed, and 2% had no opinion. In response to the last indicator, 55% of 161 companies agreed that their businesses perceive themselves to have a good calculation of risks and return on investments. However, 12% strongly agreed with the statement, 12% disagreed, 12% had neutral opinions, and 5% strongly disagreed, and 4% had no opinion "NA".

Figure 2.51a: Access to Skills
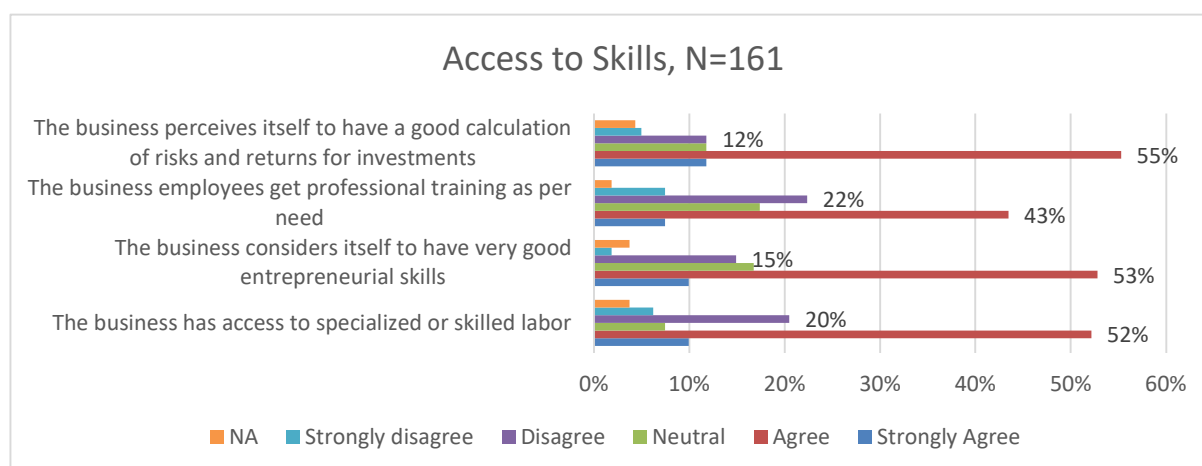
Source: Respondents' Feedback analysed by the author, 2019

Mean	Standard Error	Median	Mode	Standard Deviation	Sample Variance	Kurto- sis	Skew- ness	Mini- mum	Maxi- mum	Confidence Level (95.0%)
61	1.4	62.5	75	18.33	335.83	0	-0.68	12.5	100	2.85

Figure 2.51b: Access to Skills Description

Source: Respondents' Feedback analysed by the author, 2019

As shown in Figure 2.51b, from a potential score of 100%, the average access to skills is 61% from 161 companies with a median of 62.5, a mode of 75, a standard deviation of 18.33, a minimum of 12.5, and a maximum of 100. As illustrated in Figure 2.51c, four companies or 2.48% of 161 companies have access to skills between 11%-20%. 9 or 5.29% of companies have access to skills between 21-30%. 8.70% or 14 companies have the access between 31%-40%. 10.56% or 17 companies have access between 41%-50%. 11% or 18 companies have access between 51%-60%. 27.95% or 45 companies have the access between 61%-70%. 19.88% or 32 companies have access to skills between 71%-80%. 12.42% or 20 companies have access to skills between 81%-90%. 1.24% or 2 companies have access to skills between 91%-100%. As illustrated in Figure 2.51d and 2.51e, relative access to skills is better than access to infrastructure. 77 companies have access to skills between 61%-80%, however, there is still a huge gap of access to skills given that only 22 companies or 13.66% of 161 companies have access to skills between 81%-100%. The rest of the companies have lower access than 50%.
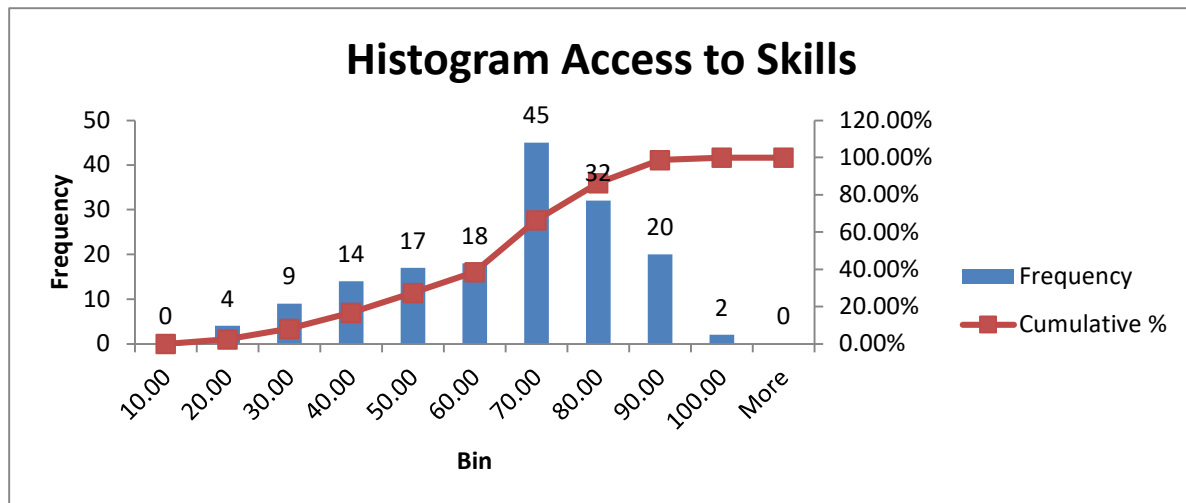
Figure 2.51c: Frequency Distribution to Access to Skills

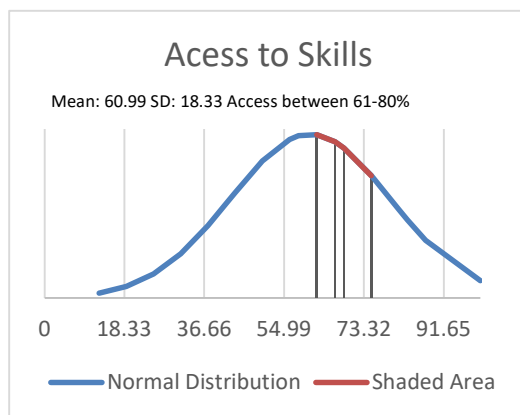Source: Respondents' Feedback analysed by the author, 2019

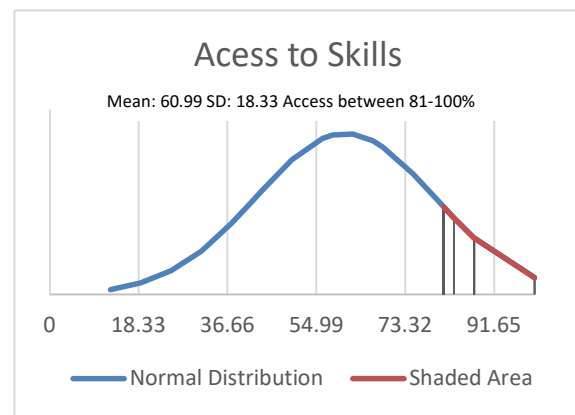Figure 2.51d: 77 companies Access to Skills   Figure 2.51e: 22 companies Access to Skills

Source: Respondents' Feedback analysed by the author, 2019

Hypothesis Test: Through a single linear regression, the rate of success has been used as the dependent variable, and access to skills as the independent variable with setting an alpha of <=0.05. There is a correlation of 0.51 between the variables. That means, when access to skills increases, the rate of success also improves at the strength of the correlation. There is an R square of 0.26, a t-stat of -7.54, and a p-value of 0.0000. Given the rules of thumb for regression when t-stat is >+2 or <-2 and p value is <=0.05, it is considered statistically significant. Based on the regression outputs, we can see that there is a dependency between the variables. Given that the R square is 0.26, that means, the variability of rate of success is explained 26% by the access to skills. The coefficient is -0.02. That means, when access to skills moves by 1, the rate of success moves by 0.02 towards the improvement of success. Therefore, *we can conclude that given the statistical dependency between the variables, we can reject the null hypothesis and accept the alternative hypothesis "Entrepreneurship Performance depends on access to skills".*

Regression Statistics	
Multiple R	0.51
R Square	0.26
Adjusted R Square	0.26
Standard Error	0.63
Observations	161

Access to Skills $y = -0.0206x + 4.4582$
$R^2 = 0.2631$
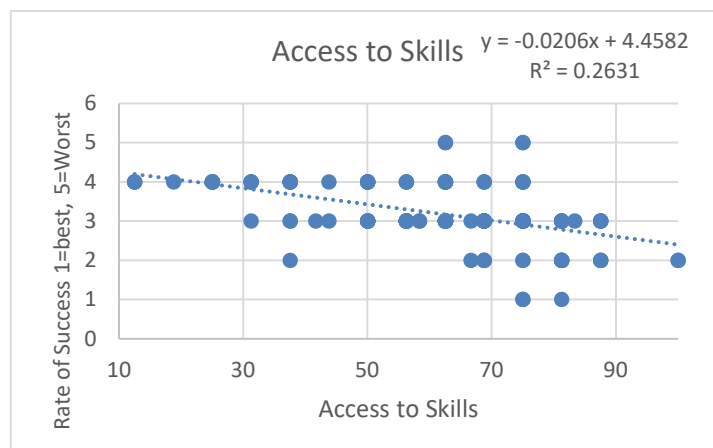
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.46	0.17	25.68	0.00	4.12	4.80	4.12	4.80
Access to Skills	-0.02	0.00	-7.54	0.00	-0.03	-0.02	-0.03	-0.02

Figure 2.51f: Rate of Success ~ Access to Skills

Source: Respondents' Feedback analysed by the author, 2019

Qualitative Feedback and Analysis: The company follows the McKinsey's one of 7s "skills" framework. The company ensures that the right and qualified personnel are in the right position based on the competence to ensure the roles and responsibilities are carried out. The vice president of the company told the researcher that, for example, the person who oversees inventory, has been well trained on inventory management; the same is true for all professions. Qualifications, skills, and competences are key factors that contributed to the success of a 25-year-old company in providing medical goods and services in Afghanistan (HRTafp04, September 2019). MZRns02's CEO pointed out that "It is difficult to find a skilled business employee in the local market. Personnel capable of performing professional business tasks at high standards are rarely available". Given the issue, the CEO himself has to carry out key tasks such as market assessment and pricing issues to develop either new plans or amend existing plans which serve the interests of the firm (MZRns02, July 2019).

The company identified the inability to make a good analysis of risk and return as a key challenge, due to which it has incurred frequent losses. Without proper screening of macroeconomic issues given the return and risk, the company ordered and paid a high price for 1,000 tons of metal bar, for which there was no market demand in Mazar (MZRah06, July 2019). Business skilled labour was not easily found in the domestic markets, and skilled people are unaffordable.

Analysis of risk and return is a core skill of the company based on experience to be sure to make the best sound judgment in choosing products, the time horizon of the investment, and making investment decisions in general. Though the core business line of the business is oil, the product price fluctuates on a daily basis. This means the company has learned how to deal with a volatile commodity. The company uses its soft skills including market assessment, studying the safest route to export goods,

and other business measures including seasonality of the prices (MZRsq07, July 2019). While access to skilled labour is considered critical to marketing management, the company has limited access to skilled labour and innovative assets in the domestic market (MZRpha08, July 2019).

HRTap02 attributed the company's success to skills and innovation. Lack of innovation could have burdened companies with major problems and poor performance, said the vice president. However, the company expressed its concern over the cost of skilled labour which was not easily accessible. "There is a mismatch of required business skills in the market and trained business people available in Afghanistan", said the vice president. He added, "Afghanistan's educational system does not have a good capacity to train skills on industrial issues or for industrial solutions. Therefore, the company has to send its personnel abroad to acquire the required knowledge". Sending personnel abroad for training is associated with high costs and the company has to make a good calculation of the payback period (HRTap02, 2019).

Continuous skills development has been a key criterion to investment in individuals who are motivated and have the capacity to acquire new knowledge. The firm invests in young doctors and sends them abroad to acquire a skill in the needed areas of health care services. Being in a perfect competition environment where all hospitals offer the same products and price does not help to be competitive in the health care industry, the company makes regular market assessments to create value for customers. Through innovative assets meeting international norms and standards, the company invests in high-tech to be competitive and offer quality services to customers (HRTmh03, 2019)

Based on the human development index between 1990-2018, Afghanistan has been trending upwards. However, it has a lower performance than its neighbors. In 2018, the country ranked 170 in the world. In 2019, the country held the same rank without any progress (UNDP, 2018 and 2019).

4.2.5 Hypothesis 5: Entrepreneurship Performance depends on Access to Innovative Assets

Null Hypothesis: Entrepreneurship Performance does not depend on access to innovative assets
Alternative Hypothesis: Entrepreneurship Performance depends on access to innovative assets

As explained in the theoretical part, "access to innovative assets" is a critical theoretical part of the global entrepreneurship index (GEDI, 2020), the global competitiveness index (World Economic Forum, 2019), the entrepreneurship ecosystem (Malecki, 2018), and determinants of entrepreneurship developed by the OECD (OECD, nd). In this hypothesis, access to innovative assets has been used as the independent variable and rate of success as the dependent variable to test the hypothesis. However, before testing the hypothesis, it is important to introduce the variables. The rate of success is the perceived success the 161 surveyed companies have rated themselves based on their performance. The independent variable "access to innovative assets" has been measured using three indicators: 1) The business has access to modern technology including Big Data Analysis for organizing business issues and business to increase productivity and profits (e.g. supply chain management, e-sales, e-payment,

etc.); 2) The business has a collaborative network with research institutions and other firms to introduce innovative business processes for profits and add values; and 3) The business has institutionalized research and development efforts, and partners with other firms for innovative business processes, ideas, and performance.
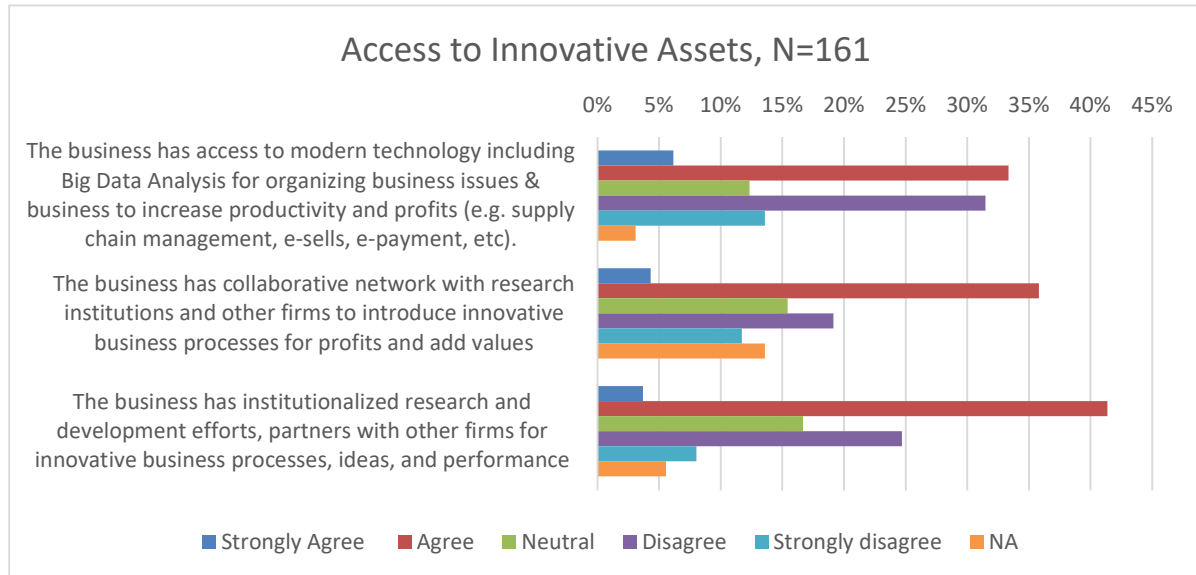

Figure 2.51g: Access to Innovative Assets

Source: Respondents' Feedback analysed by the author, 2019

As illustrated in Figure 2.51f, in response to the first indicator 34% of 161 companies agreed that their businesses have access to modern technology including Big Data Analysis for organizing business issues and businesses to increase productivity and profits (e.g. supply chain management, e-sales, e-payment, etc.). However, 31% disagreed with the statement, 14% strongly disagreed, 12% had neutral opinions, 6% strongly agreed, and 3% had no opinion "NA". In response to the second indicator, 36% of 161 companies agreed that their businesses have a collaborative network with research institutions and other firms to introduce innovative business processes for profits and add values. However, 19% disagreed with the statement, 16% had neutral opinions, 14% had no opinion "NA", 11% strongly disagreed, and 4% strongly agreed. In response to the last indicator, 42% of 161 companies agreed that their businesses have institutionalized research and development efforts, and partner with other firms for innovative business processes, ideas, and performance. However, 25% of the respondents disagreed with the statement, 17% had neutral opinion, 7% strongly disagreed, 6% had no opinion "NA", and 4% strongly agreed. Through a descriptive analysis of access to innovative assets as shown in Figure 2.51h, the overall access of 161 companies to innovative assets has been 49.90 out of a potential score of 100. The following table illustrates the descriptive statistics of access to innovation.

Mean	Standard Error	Median	Mode	Standard Deviation	Sample Variance	Kurto-sis	Skew-ness	Mini-mum	Maxi-mum	Confidence Level (95.0%)
49.90	1.75	50	75	22.20	492.83	-0.95	-0.25	0	91.67	3.46

Figure 2.51h: Access to Innovative Description

Source: Respondents' Feedback analysed by the author, 2019
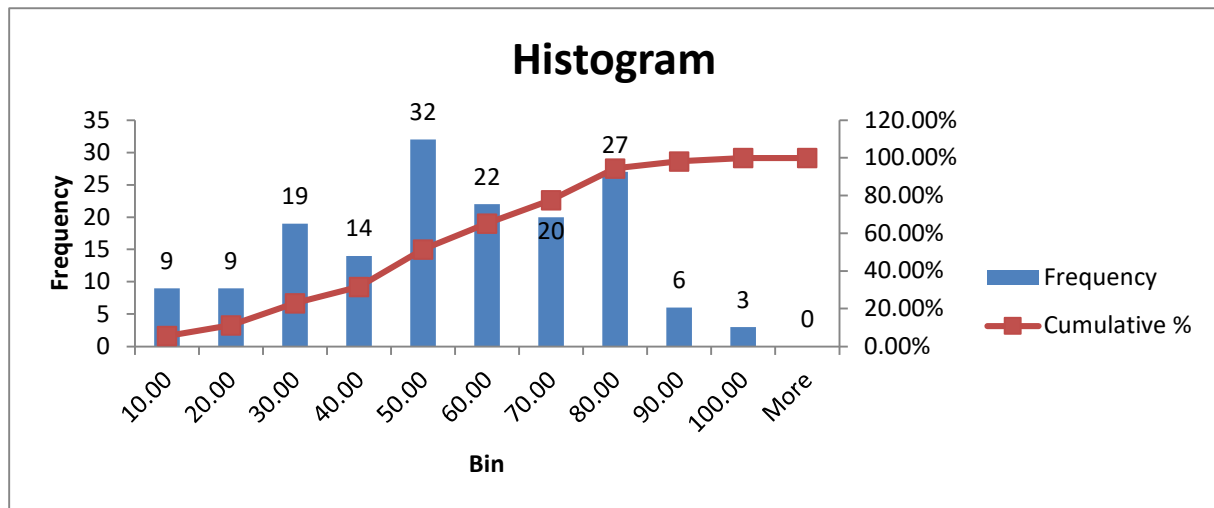
Figure 2.51i: Frequency Distribution of Access to Innovative Assets

Source: Respondents' Feedback analysed by the author, 2019

As shown in Figure 2.51i, out of a potential score of 100%, 9 companies or 5.59% of 161 companies have access to innovative assets between 0%-10%. 9 companies or 5.59% of 161 companies have access between 11%-20%. 19 or 11.80% of companies have access between 21%-30%. 14 or 8.70% of 161 companies have access between 31%-40%. 32 or 19.88% of 161 companies have access between 41%-50%. 22 or 13.66% of 161 companies have access between 51%-60%. 20 or 12.42% of 161 companies have access between 61%-70%. 27 or 16.77% of 161 companies have access between 71%-80%. 6 or 3.73% of 161 companies have access between 81%-90%. 3 or 1.86% of 161 companies have access between 91%-100%. As shown in Figure 2.51j, only 36 companies or 22.36% of 161 companies have access to innovative assets between 71-91.68% from potential score of 100. However, 74 companies or 45.96% of 161 companies have access to innovative assets between 41-70% from a potential score of 100 as shown in Figure 2.51k.
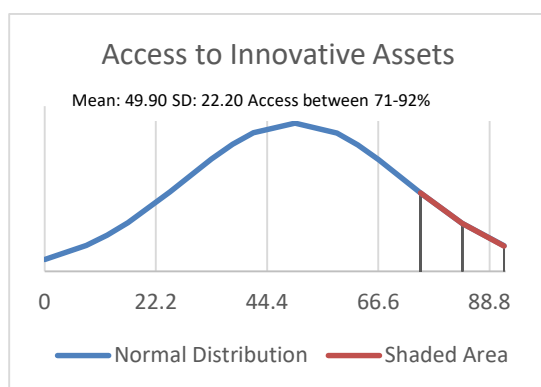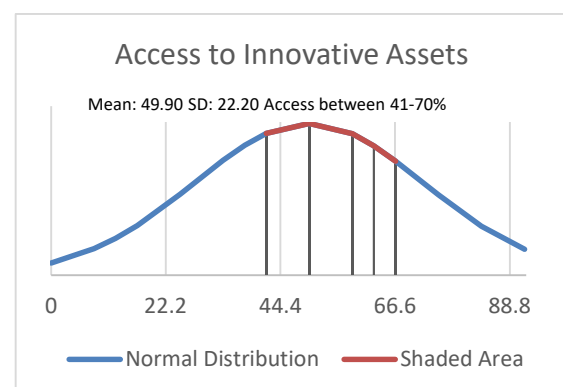

Figure 2.51j: 36 Companies Access

Figure 2.51k: 74 Companies Access

Source: Respondents' Feedback analysed by the author, 2019

Hypothesis Testing: Through a single simple linear regression, the rate of success has been used as the dependent variable and access to innovative assets as the independent variable. The alpha was set

<=0.05. There is a correlation of 0.51. That means, when access to innovative assets increases, the rate of success also improves. There is an R square of 0.26. A variation in the rate of success is explained 26% by the access to innovative assets. The t-stat is -7.48 and the p-value is 0.0000. Given the rules of thumb, when t-stat is >+2 or <-2 and p-value is <=0.05, this statistical test meets the criteria. Therefore, there is a statistical dependency between the variables. Or it is statistically significant. The coefficient is -0.02. when the access to innovative assets moves by 1, the rate of success will move by 0.02. Based on the regression outputs, we can conclude with rejecting the null hypothesis and accept the alternative hypothesis "entrepreneurship performance depends on access to innovative assets".

Regression Statistics	
Multiple R	0.51
R Square	0.26
Adjusted R Square	0.26
Standard Error	0.63
Observations	161
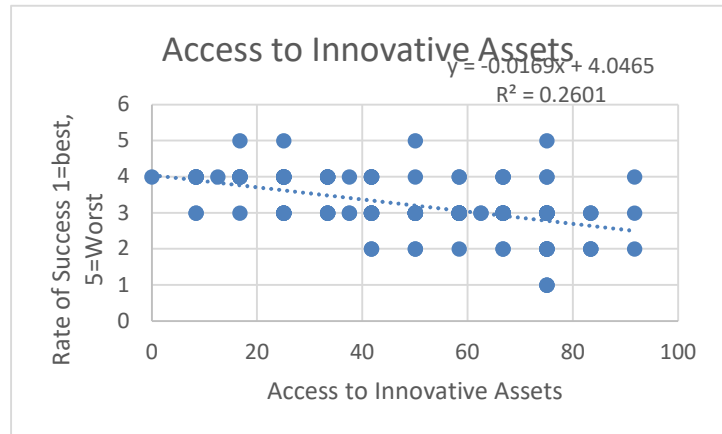
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.05	0.12	32.86	0.00	3.80	4.29	3.80	4.29
Innovative Assets	-0.02	0.00	-7.48	0.00	-0.02	-0.01	-0.02	-0.01

Figure 2.51l: Rate of Success ~ Access to Innovative Assets

Source: Respondents' Feedback analysed by the author, 2019

4.2.6 Hypothesis 6: Entrepreneurship Performance on Institutional and Regulatory Framework

Null Hypothesis: Entrepreneurship Performance does not depend on institutional and regulatory framework

Alternative Hypothesis: Entrepreneurship Performance depends on institutional and regulatory framework

As explained in the theoretical part, "institutional and regulatory framework" is a critical theoretical part of the global entrepreneurship index (GEDI, 2020), the global competitiveness index (World Economic Forum, 2019), the entrepreneurship ecosystem (Malecki, 2018), and determinants of entrepreneurship developed by the OECD (OECD, nd). Institutional and regulatory frameworks play a critical role in impacting productivity and a good enabling environment for business performance (World Economic Forum, 2019). In this hypothesis, "institutional and regulatory frameworks" has been used as

the independent variable and rate of success as the dependent variable to test the hypothesis. However, before testing the hypothesis, it is important to introduce the variables. The rate of success is the perceived success the 161 surveyed companies have rated themselves based on their performance. The independent variable "institutional and regulatory framework" has been measured using five indicators: 1) overall, the complexity of regulatory procedures for entrepreneurship related issues have been simplified; 2) Property registration for business is complicated; 3) Land acquisition from the government for industrial or for business purposes is complicated; 4) Public governance supports businesses institutionally (supports, training, coaching, consultation, problem solutions, marketing, etc); and 5) The government has an effective participatory mechanism to listen to businesses' problems and address them, and protects investment and trading.
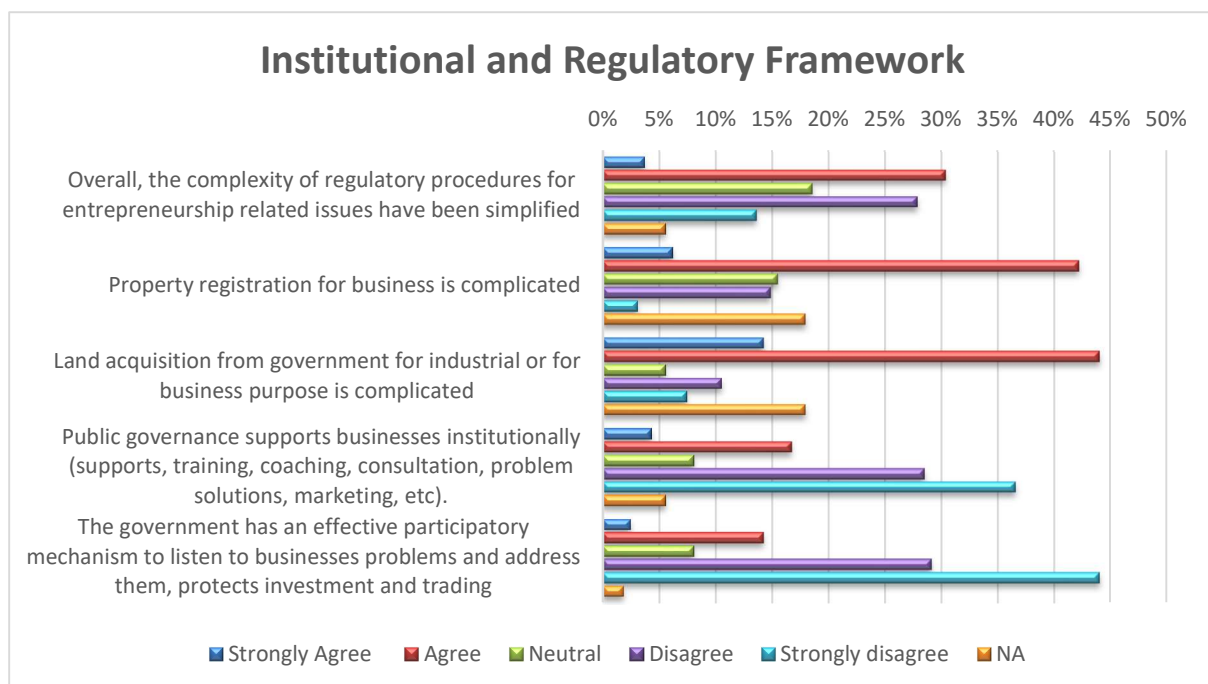

Figure 2.48a: Institutional and Regulatory Framework

Source: Respondents' Feedback analysed by the author, 2019

As shown in Figure 2.48a, in response to the first indicator, 30% of 161 companies agreed that the regulatory framework for entrepreneurship related issues has been simplified. However, 28% of respondents disagreed with the statement, 19% are neutral, 14% strongly disagreed, 6% did not have any opinion, and 4% strongly agreed. The firms have confirmed that overall the complexity of certain entrepreneurship related issues, especially business registration has been simplified.

In response to the second indicator, 42% of 161 companies agreed that property registration is complicated. 18% of the respondents had no opinion about the statement "NA", 16% were neutral, 15% disagreed, 6% strongly agreed, and 3% strongly disagreed. In response to the third indicator, 44% of respondents from 161 companies agreed that land acquisition from the government for industrial or business purposes is complicated. However, 18% of respondents had no opinion to the statement "NA"

since they never dealt with the land acquisition. 11% of respondents disagreed with the statement, 7% strongly disagreed, and 6% were neutral.

In response to the fourth indicator, 37% of 161 companies strongly disagreed that public governance supports businesses institutionally in terms of coaching, training, consultation, problem solution, marketing, etc. However, 29% of respondents disagreed with the statement, 17% of respondents agreed, 8% were neutral, 6% had no opinion "NA", and only 4% of respondents strongly agreed.

And in response to the fifth indicator, 44% of 161 companies strongly disagreed that the government has an effective participatory mechanism to listen to businesses' problems and address them, and protects investing and trading. However, 29% of respondents disagreed with the statement, 14% of respondents agreed, 8% were neutral, and 2% strongly agreed, and 2% had no opinion "NA".
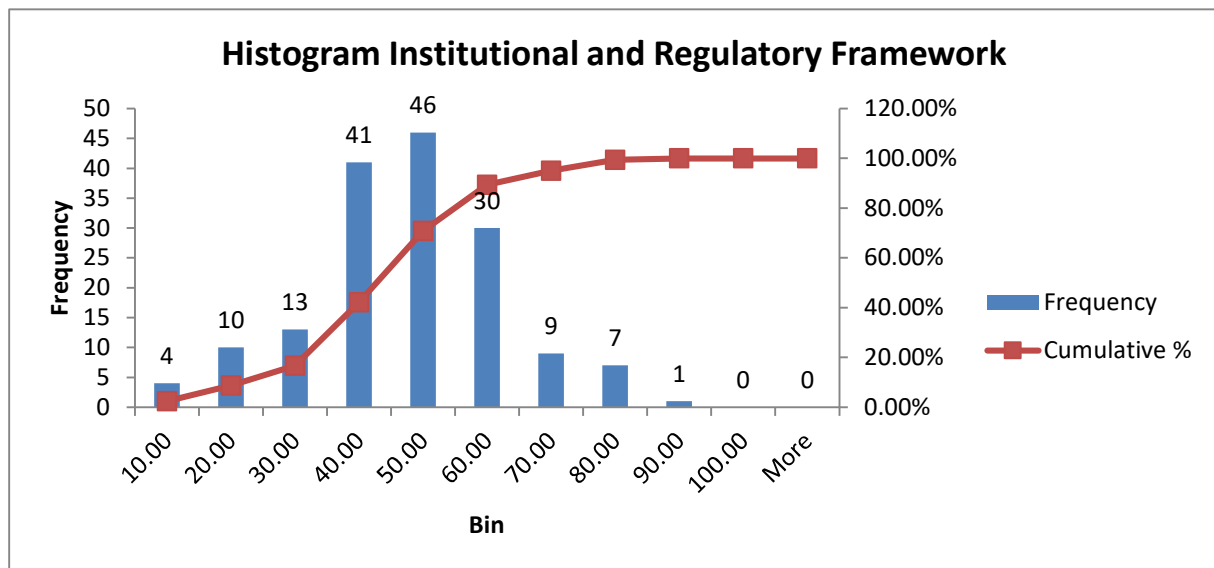
Bin	Frequency	Cumulative %	% of Companies
10.00	4	2.48%	2.48%
20.00	10	8.70%	6.21%
30.00	13	16.77%	8.07%
40.00	41	42.24%	25.47%
50.00	46	70.81%	28.57%
60.00	30	89.44%	18.63%
70.00	9	95.03%	5.59%
80.00	7	99.38%	4.35%
90.00	1	100.00%	0.62%
100.00	0	100.00%	0.00%
More	0	100.00%	0.00%

Figure 2.48b: Histogram and Frequency Distribution on Institutional and Regulatory Framework

Source: Respondents' Feedback analysed by the author, 2019

As shown in Figure 2.48g, based on the quantitative survey from 161 companies using the five above indicators, the institutional and regulatory framework was measured. From a potential score of 100%, the average access to the institutional and regulatory framework (IRF) has been rated 43.75%, median of 45%, mode of 45%, the standard deviation of 16.46%, a minimum of 0% and a maximum of 87.50%. As shown in Figure 2.48b, 4 or 2.48% of 161 companies have access to IRF between 0% - 10%. 6.21% or 10 companies have access to IRF between 11% - 20%. 8.07% or 13 companies have access to IRF between 21%-30%. 25.47% or 41 companies have access to IRF between 31%-40%. 28.54% or 46 companies have access to IRF between 41%-50%. 18.63% or 30 companies have access to IRF between 51%-60%. 5.59% or 9 companies have access to IRF between 61%-70%. 4.35% or 7 companies have access to IRF between 71%-80%. And 0.62% or 1 company have access to IRF between 91%-100%. Overall access to IRF has been reported low. Using a bell curve as shown in Figure 2.48c – 2.48d, 89.44% or 144 companies have access to IRF only between 0%-60%, which is quite low. And 95.03% or 153 companies have access to IRF between 0%-70%. A significant portion of the companies believes the framework is quite poor. However, 70.81% of companies have access to IRF between 0%-50%, as shown in Figure 2.48e.

Mean	Standard Error	Median	Mode	Standard Deviation	Sample Variance	Kurtosis	Skewness	Minimum	Maximum	Confidence Level (95.0%)
43.75	1.30	45.00	45.00	16.46	270.80	0.04	-0.10	0.00	87.50	2.56

Figure 2.48g: Institutional and Regulatory Framework Description

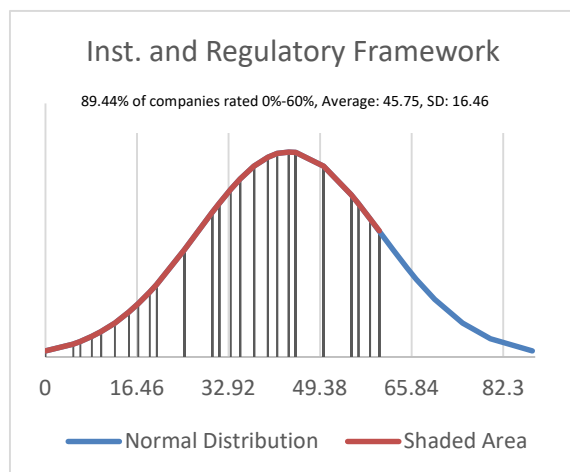Source: Respondents' Feedback analysed by the author, 2019
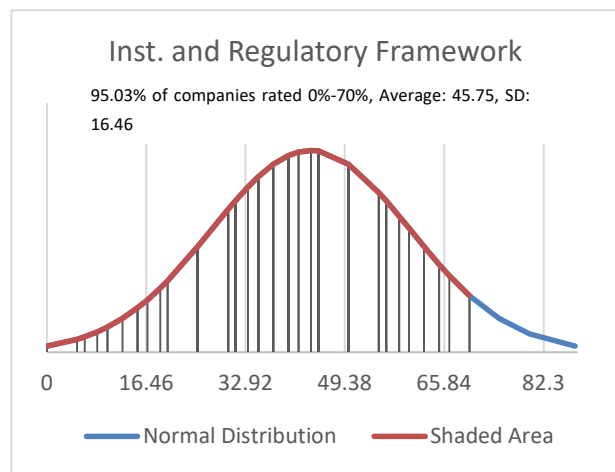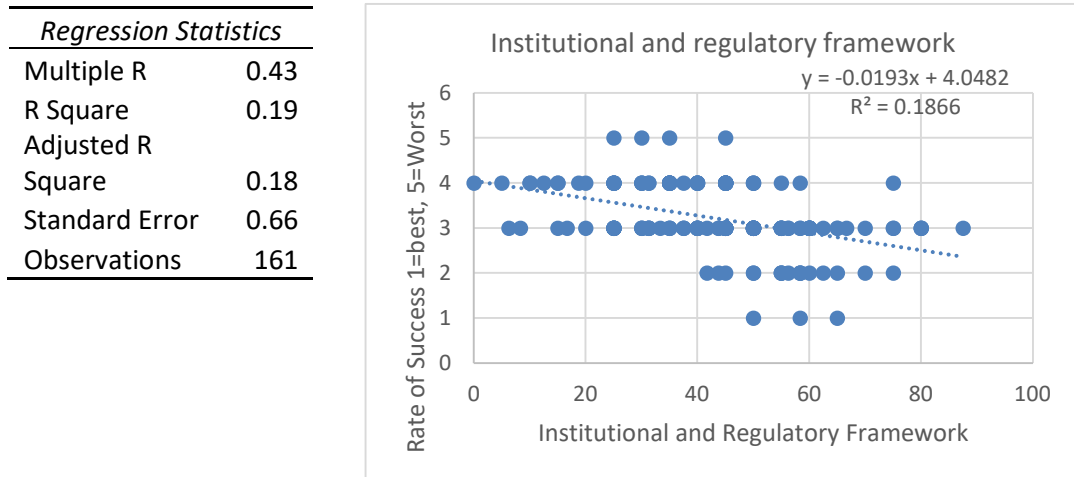

Figure 2.48c: 144 Companies Access

Figure 2.48d: 153 Companies Access

Source: Respondents' Feedback analysed by the author, 2019

Hypothesis Testing: Through using a single simple linear regression, the rate of success of 161 companies has been used as the dependent variable and institutional and regulatory framework as a dependent variable. The alpha has been set <=0.05. There is a correlation of 0.43. That means, when access to institutional and regulatory framework improves, the rate of success also improves. The R square is 0.19. That means a variation in the dependent variable is explained 19% by the institutional and regulatory framework. The t-stat is -6.04 and the p-value is 0.0000. Given the rules of thumb, when the t-

stat is >+2 and <-2, and p-value is <=0.05, there is statistical dependency between the variables. The coefficient is -0.02. That means when institutional and regulatory framework as the independent variable moves by 1, the rate of success moves by 0.02. Based on the regression outputs, we can conclude with rejecting of the null hypothesis and accepting the alternative hypothesis. The regression outputs are available in Figure 2.48e.

Regression Statistics	
Multiple R	0.43
R Square	0.19
Adjusted R Square	0.18
Standard Error	0.66
Observations	161

Institutional and regulatory framework

$y = -0.0193x + 4.0482$
$R^2 = 0.1866$

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.05	0.15	27.15	0.00	3.75	4.34	3.75	4.34
Inst. Reg. Fr.work	-0.02	0.00	-6.04	0.00	-0.03	-0.01	-0.03	-0.01

Figure 2.48f: Rate of Success ~ Institutional and Regulatory Framework

Source: Respondents' Feedback analysed by the author, 2019

4.2.7 Poor Enabling Environment

HRTmh03, which is in the health care industry and a service provider, expressed its concern and said, "companies' voices are not heard. Concerns and issues are collected and transmitted to government officials, but they do not take any action at all". "The current representative of the Herat Industrial Union has not been able to resolve the industrial issues of Herat since the leadership took office ten years ago" (HRTmh03, 2019). According to the hospital manger, there are 83 private hospitals in Herat. The *government does not build trust in the private hospitals. The current president, Ashraf Ghani, has publicly mentioned that the medical system is not effective or efficient* (HRTmh03, 2019). The firm has said that this type of government announcement discourages patients who are able to pay for private hospital services. Instead, they travel to India and Pakistan to get treatment. In India and Pakistan, the patients spend 10-20 times more than they would in local hospitals (HRTmh03, 2019, 2019). Every year around 300 million USD is spent by Afghans in Pakistan and India for medical treatment. "If the government pays appropriate supports to promote the private sector in health services , Afghans will not have to travel to these countries for medical purposes", said the company (HRTmh03, 2019).

Another concern reported was that the provision of health services was not found to comply with the rules and regulations .Based on the regulations, there should not be a health facility within 1 kilometer of another health facility. However, this rule is not followed, and Herat has been experiencing an excess supply of private health facilities. The firm does offer differentiated services. This helps its performance and has been important for its survival. The company reports that the Herat market was to have perfect competition in health services given that all service providers have almost the same types of services and the same prices. Through a differentiation strategy, the company will try to identify special needs of people in cardiology, urology, and orthopedics, and serve patients so that they do not have to travel outside the country. These kinds of initiatives are done without any assistance from the government. In other words, the government has not assisted the company with any research and development. Without differentiated services, the hospital cannot survive. The company believes that differentiated services will create value for potential patients (HRTmh03, 2019).

Represented by its vice president, HRTap02, which is in the health care industry and is a manufacturer of medical supplies, equipment, and services, has identified a lack of government support in private sector development as a key issue. The firm said, "The government has neither any particular policy nor a program to support private sector development professionally". Had there been institutional support from the government, the company would have been in a much better position to compete both in domestic markets and regional markets" (HRTap02, 2019). The company described one of its projects on medical cotton. The initiatives were done at the company level without the proactive engagement of the government of Afghanistan. "Had there been government proactive engagement and support in this project, the company would have already launched the cotton project", said the firm. Given that domestic markets are too small to consume all of the production of this project, the company has targeted regional and international markets for which the firm has to qualify to export by meeting certain standards and receiving certifications. "This requires a lot of resources and would have been expedited if there have been some support from the government", said the vice president (HRTap02, 2019). The company vice president defined his company "HRTap02" as a company that produces a range of high end products. "Unfortunately, the government of Afghanistan does not supply its procurement needs from locally produced products. It is only a government slogan that is not followed by practical actions", said the vice president.When the company participated in government bidding to offer medical related devices, the government did not consider quality as a deciding factor, but only the lowest price. Imported products are substitutes for the products HRTap02 produces. The substitutes were cheaper because their quality is lower than HRTap02 produced products (HRTap02, 2019). *At the time of the interview, the vice president of the firm mentioned that 30% of the firm's capacity was used, and 70% has not been used, which drives the underperformance of the firm.*

HRTap02 has been seeking collaboration with international companies in the areas of the supply chain as the company allegedly has the capacity to manufacture a variety of medical furniture. Allegedly, this is not possible without the enabling participation of the Afghanistan's government. Tracking of exported items was reported to be easier than imported items. The firm still has to physically contact the

logistics firms to follow up on the expected arrival date. Property registration, property transfer, government to resolve business issues, investment protections, are not forthcoming. The company has been in the queue to receive a piece of land for a factory building for 8-9 years. "Property registration or transfer is never possible without bribes", said the vice president. Security and protection of investment are a matter of concern (HRTap02, 2019).

The company has never been assisted to expand on long term investments domestically. Though there has been some land allocation for companies, the conditions have not improved in terms of infrastructure so that the company can plan their future investments (MZRm09, 2019). However, the company has confirmed that the government has recently introduced a simpler system to pay customs duty through any bank. In the past, it was only possible in one bank based in Hairatan, which involved significant risks. However, the company expressed serious concern over land acquisition, and licenses, saying that they are associated with corruption. The company reported an experience where the National Environment Protection Agency (NEPA) of Mazar requested that the company pay USD 2500 as an informal payment for an environmental license. The company emphasized the importance of an enabling environment in terms of improvement of storage in the customs office, infrastructure, and internet (MZRm09, 2019).

Land acquisition is very difficult. The company expressed concerns about the enabling role of government to promote business. Reportedly, there are many government supports, but they are limited to those who have networks with government officials and senior politicians. Whenever there are international fairs, the participation of companies with good networks is ensured. The company pointed out the institutionalized enabling approach of the government to provide better business environment as a key driver of business performance. Government interventions were described as ad hoc, and were not followed up (MZRhq01, 2019). The company has also found the government very unresponsive and unaccountable. "Whenever the company has to refer to the government for assistance, unfortunately, the government does not provide any responsive assistance", said the CEO of the company. He said that professional assistance from the government would enable the company to perform better and grow (MZRhq01, 2019).

The only good assistance which was acknowledged from the government was forgiveness of firms' taxes, which were due to be paid in 2018. 95% of the taxes due were forgiven. Furthermore, when there were issues at the Torkham border between Pakistan and Afghanistan, the government of Afghanistan tried its best to resolve the issues. Because of border closures, firms in both Pakistan and Afghanistan suffered economic losses (MZRns02, 2019). MZRhl03 pointed out that property registration, land acquisition, and investment protections were key issues for the company. It believed that rather than providing an enabling and support ecosystem to promote entrepreneurship, the government sometimes caused initiatives to die. "Probably, the legal framework might be supportive of entrepreneurship, but the application and law enforcement of the legal framework is a matter of concern", said the executive of the firm (MZRhl03, July 2019).

Customs services were found absolutely inefficient. Food items must be tested in labs in Kabul before they can be sold in the markets. It takes several days to reach the Kabul lab and get the products lab tested. Meanwhile, 24 hours after the arrival of the goods in the customs office, they are subject to penalty charges, if not offloaded. "The system makes us pay a bribe (3000 Afs per container), pretending that the flour subject to lab tests is good quality without actually being tested", the CEO said (MZRia04, 2019). MZRtj05 shared its investment plan, which failed only because of officials of the government of Afghanistan. The company planned to build a factory producing serum. The ministry of health asked for 20% of investment capital and Balkh officials 10%, as informal payments, a total of 30%, which led to the decision to cancel the project (MZRtj05, 2019).

Businesses that expand in Afghanistan are more likely to have networks with warlords or people in power. "A firm with a trade volume of five truckloads is doable. Beyond that, the accounts receivable will be challenged. Either the firm needs to have a partner who is a warlord or senior politicians engaged as insurance for accounts receivable", said the CEO. That means ideally, should a firm without connection with warlords or senior politicians have a trading volume of more than 5 truckloads, the firm will have a credit risk since its customers will be unwilling to pay for the shipment, and collecting the accounts receivable without a political and economic affiliation with politicians or warlords will not be possible (MZRtj05, 2019).

"Given the poor economic performance due to political instability, the government does not support *Buy National Regulations*, to assist manufacturers", said the CEO of the company. Due to a decline in construction projects, the company has been performing poorly for the last couple of months. People say that bidding on available government construction projects is not transparent. "The companies do not have transparent participation in the bidding process. A bidder must be able to pay, or have a strong connection, to participate and win contracts", said the CEO. While the company needs its own land to build a plant, acquiring land was described as extremely difficult and associated with a great deal of bureaucracy and not transparent. Since the company paid high rents at the current premises, its operational costs and fixed costs were high while sales were down. These circumstances had put the company in a difficult situation (MZRhps10 and MZRrp11 2019).

4.2.8 Corruption in Customs

Almost every company interviewed has identified corruption as a detrimental factor causing businesses' performance to suffer. A firm codified as **HRTab05** shared a case study from Herat that certain firms have illegal connections with customs officials, and pay 1/6 of the standard customs tariffs. Those firms with connections import metal bars. HRTab05, as a competitor of the firms with connections, could not compete with them, since HRTab05 had to comply with the tariffs' regulations with paying its full obligations. The cost of imports has been relatively higher than the competitors' with the unfair competitive advantage given the latter paid only 1/6 of official tariffs. Therefore, the firm with the tariff favoritism was able to offer his product more cheaply in the market than the rest of the competitors (HRTab05, 2019). He also mentioned that Nut and Bolt is another firm that imports metal bars

with no customs tariffs. He mentioned that one of his business lines was metal bars. The company had to abandon the import of metal bars, as he could not compete with a firm whose imported goods were not tariffed legally due to pricing advantages (HRTab05, 2019). In a similar development, another firm, codified as HRTbmo06, imported tar. At the time of the interview, the firm had an inventory valued at over one million dollars, which it was not able to sell in the market because of Nut and Bolt, which allegedly did not pay customs tariffs. The company reported that, though both firms were purchasing product from the same source, Nut and Bolt had a pricing advantage. (HRTbmo06, 2019).

In another incident involving the Herat customs office, a firm called Safi imported cooking oil. The Ministry of Health at the time, in 2012, initially identified the imported products as unqualified for human consumption. The firm brought orders from the Minister of Health, Suraya Dalil, ordering that the firm "Safi" could import the products. This case was brought up as a bad experience from the domestic market in Herat back in 2012 (HRTab05, 2019). Given the double standard in the Herat customs office, the CEO of the firm has confirmed that they have reduced their operations, both importing and exporting. It was difficult to compete in the domestic and regional markets. The CEO of the firm claimed that "the current chairperson of the Herat Provincial Council imports oil without customs duties". "How can his competitors compete against the chairperson's firm in the domestic market on oil fairly?", he added. Reportedly, oil was also one of his business lines that the firm had to abandon. In another case from Rahmani Group, co-managed by Haji Ajmal Rahman. Because he had contracts with American Forces to supply fuel, he was exempted from paying customs duties for oil imported into Afghanistan. However, the Rahman Group misused this tariff concession and sold the oil on the open market. He also misused the situation. He offered oil in the market at a lower price since the oil was imported without a tariff. No company can compete in situations like this. Corruption in customs has been a factor in HRTab05's poor performance. *(Note: Haji Ajmal Rahmani is a parliamentarian whose father is the chairperson of the Afghan Parliament, Mr. Mir Rahman Rahmani)*. Customs tariff concessions, especially for oil, have been a huge source of corruption and a factor for many companies' insolvencies and bankruptcies. Fortunately, it was stopped after 2014 (HRTab05, 2019).

In another case, stated by a firm codified as "HRTe01," certain raw materials had tariff concessions by the government. The firm was in a situation in which it was importing the raw materials and the customs office refused to treat the imported materials as those with tariff concessions. The firm had to look for that particular official order from the government which ordered that certain particular raw materials had tariff concessions. The firm paid USD 300 informally to the respective government ministry to receive the scanned copy of the government order. This kind of treatment has been noted to be a normal practice in customs office. "Until an informal payment is paid to the customs' officials, the work is not done", said the CEO of the firm. In this case, the raw materials tariff concession was accepted only when informal payment was secured by the customs officials (HRTe01, 2019). The firm, which has various business lines including hygiene products and agricultural outputs, and both exports and imports goods, pointed out that the group has been underperforming partially because of customs corruption. The executive shared a case where the police stopped one of his trucks carrying imported

raw materials. The customs patrol police thought that this particular truck did not pay the informal payment against no tariffs and left the customs office. After a verification process, the truck was released again. The firm claimed that the customs patrol police did not verify if the truck's owner paid the customs tariff or not but wanted to make sure that they were part of a deal in which informal payment was made so that no customs tariff was collected (HRTe01, 2019). "There is a system to charge customs tariff on imported goods, but not implemented", said the CEO. He had heard that there are certain senior government officials, especially from the president's office, who are informally allowed to import between 20-40 trucks of goods without tariff payments on a daily basis, the CEO added. Another trick of the customs office was described. The practice is that loads of two trucks are loaded into one truck for reduced tariffs as they are not well verified, claimed the CEO. The firm highlighted that a double crime is committed; first, no custom tariff payment is paid, secondly, the highways are driven with heavier trucks than the allowed norms. The firm also highlighted the long-term side effects of goods imported without tariffs on pricing in the domestic markets against potential competitors that import legally. The firm stated, "the type of corruption in the customs' office is _very complex and networked_". "If someone has a connection, his goods are processed faster than normal without waiting in queue", the CEO added. Normally, firms with connections against payment have favorable conditions in having their goods processed. TOLO News shared similar cases which will be described below.

"_Motafarqa/miscellaneous or tariff concession regime_ is imposed on imported goods when customs officials are unwilling to inspect the materials against informal payment", said the CEO. Given the high level of corruption in customs offices, certain firms use this option to import goods which eventually helps them pay lower tariffs than originally could have been charged. With this option, firms get goods imported without paying the official tariffs, causing those that import legally to underperform (HRTe01, 2019).

Goods without customs tariffs or smuggled goods are key challenges for companies that follow the rules and regulations. HRTap02 pays tariffs following rules while smuggled goods enter the market serving as substitutes compete against products that are produced domestically or enter the market legally. "Smuggled products which enter the market without tariffs challenge products that follow the rules and regulations and pay the tariffs", said the vice president of the firm. Smuggling causes issues with pricing, maintaining quality brands, and the overall economy (HRTap02, 2019).

The firm expressed concern over organized corruption system in the customs office. "When flour is exported to Afghanistan, each container is charged 40 USD (Note: Each container has 68 tons of flour)", claimed the executive officer of the firm. "The firm has to pay 3 dollars as informal payment", added the executive officer. Informal payment has been the customs office's culture without which no container goods will be processed. "Each customs office process has to pass through eight offices. Each office's informal charge is 200 Afs", said the officer. He added, "the last two offices, which are senior to the normal offices, receive informal charges of 500 Afs each waybill", (MZRm09, 2019).

Although customs tariffs were an issue raised by firms in Herat and Mazar, one firm claimed that the laws are less enforced at customs in the east and south of Afghanistan than in the north. Allegedly, a truck with 80 tons of goods pays duty on only 20-25% of the goods, while the rest of the goods are not charged, but the officials are paid bribes. Informal payment in customs offices is the organizational culture without which a business solution is hard to be reached. Companies have to abide by the organizational culture to get things done (MZRhq01, 2019).

MZRns02 also confirmed that "to get things done in customs offices is impossible without informal payments ranging from 200 Afs and up, depending on the business issues' importance".In general, the customs offices' informal payment fees for normal operations range from 200 Afs up to 500 Afs from one office to the other (MZRns02, 2019). MZRhl03 has found the customs office services quite low quality, ineffective, and unproductive, since firms have to pay fees in person without electronic systems in place. It takes ages to pay tariffs. Corruption was described as a major issue in the export and import activities of the firm (MZRhl03, 2019).

A firm codified as MZRtj05 highlighted that "Each container it imports into Afghanistan costs 3000 USD as informal payment to the customs office in Mazar. "If the company refuses to pay, customs officials will make excuses such as 'my system is not working' or 'it is a lunch break')", he added. "If the imported goods are not processed in a timely manner, the firm will have to pay a penalty." He continued, saying, "however, as soon as the firm is willing to make an informal payment or "bribe", suddenly, all excuses are gone, and things are done without delay" (MZRtj05, 2019). The firm has shown a list of informal payments it had to pay including 200 Afs to the dispatching department, 100 Afs to the translator, port department 200 Afs, secretary 100 Afs, revenue department 200 Afs, tariff department 100 Afs, controlling department 100 Afs, treasury department 100 Afs, transport department 100 Afs, stock department 500 Afs, stock manager 500 Afs, etc. However, he was unwilling to share a copy of the list, because of a risk to his safety and security. The CEO added that if the informal payment was not made, it would lead to immediate insolvency, given the amounts of excuses generated by the customs' office to delay as a kind of pressure to the firm to make informal payment. Reportedly, it takes a long time to process the imports and exports of goods in customs offices without informal payment. To avoid delays, the firms are forced to pay. Firms that export to and import from Central Asia did not complain about any customs offices of the transiting countries except Afghanistan (MZRtj05, 2019).

Customs efficiency is not satisfactory. Goods processing depends on mainly two factors; bribery or strong political connections. Professionalism, efficiency, and effectiveness are hardly experienced in the offices. The executive officer said, "Nothing works without informal payment", (MZRpha08, 2019).

As shown in Figure 2.44b, Afghanistan has a lower performance than 94.74% of customs in the world based on the logistics performance index in 2018. TOLO News reported a huge corruption case in the Nangarhar customs office in 2017. Four people, including the secretary of the customs director and chief of the commissioners, were arrested by the Intelligence Department of Afghanistan. They found

a list of informal payments in the pocket of the chief of commissioners. The list had key names including the provincial governor, Gulab Mangal, and the current chairperson of the senate, Mr. Muslimyar, for whom certain monthly payments had been made for a long time (TOLOnews, 2017: between 1-10 minutes). The documentary interviewed key officials, including a provincial council member who expressed his deep concern about massive corruption in the Nangahar customs' office. According to the report, the chief of intelligence, Mr. Saboor, who arrested the culprits, was transferred two weeks after he initiated the arrest, from Nangahar customs office to a different location. In another report by TOLOnews in 2016 about the Herat Customs Office, the loads of three trucks were offloaded onto two trucks. Rather than paying customs tariffs for three trucks of goods, two trucks were paid (TOLOnews, 2016: between 0:00-1 minute). Reportedly, those who work in the customs office can afford to buy a house a few months after employment in customs. In a parliament meeting reported by TOLOnews, the parliamentarians discussed the massive corruption in customs offices across Afghanistan. The parliament decided to investigate the issues through its relevant committees (TOLOnews, 2019: between 0:00-2:20). In another development, some parliamentarians who are members of the Afghan parliament's budget and finance committee disclosed some documents with media broadcast by TOLO news. The report suggested that "up to 100 trucks leave the Herat customs office without paying customs tariffs". The report critically accuses Hamdullah Hamdard, the customs director who was appointed three months ago. The parliamentarians claimed that they had proof that during the night, trucks left the customs office illegally without paying tariffs (TOLOnews, 2020: between 20:00-23:38 minutes). The report also aired the opinion of Integrity Watch Afghanistan, suggesting that since the appointment of customs officials has never been transparent, customs corruption is organized corruption. The report also suggested that the parliamentarian asked that the deputy minister for revenues of the Finance Ministry and other officials, including the chief of Farah customs and the chief of Herat customs be referred to the chief prosecution office for investigation and trials.

Based on the corruption perception index, Afghanistan received a score of 16 out of a potential score of 100. It was ranked 174. In 2018, the country had a score of 16 but ranked 172. In 2017, it received a 15 and ranked 177. Given the scores, Afghanistan is considered a highly corrupt country (Transparency International, 2019).

4.2.9   Compliance and Quality Control

Another factor that contributes to the failure of firms was non-compliance with norms and standards. A firm codified as HRTab05 shared some cases that "Some firms make orders in manufacturing companies, especially in China, and downgrades the products' quality from the defined norms and standards based on Afghanistan's regulations". He added, "Given that ordering firms in Afghanistan have illegal connections with the respective ministries in Afghanistan, and the National Standards Authority, the low-quality imported products are labeled as good quality, meeting norms and standards, and allowed to enter Afghanistan." Since those firms respecting norms and standards tend to have higher costs than those with low norms and standards, the latter competes with the the former, who can charge lower prices while consumers do not recognize that the product is of low quality. Conversely,

the Norms and Standards Authority, the vice president added, "No matter how good the quality or a firm's imported products are in Afghanistan, without paying bribes to the authorities, will not allow the importation of the goods". He continued that "Without informal payments, importing products is not possible". Therefore, this has caused the firm to underperform, and a few months ago, those particular business lines were discontinued (HRTab05, 2019).

In addition, the government normally does not properly do quality control, but simply checks the expiration date of the medicines. The executive officer added that "the current compliance and quality control system in Afghanistan does not allow privatization of laboratories to test the quality of goods imported into Afghanistan, while the Norms and Standards Authority's capacity is a matter of concern as a barrier to business performance and growth". The officer continued, saying that "imported medicines in Afghanistan never have the right quality even though we have a Norms and Standards Authority mandated to do quality control". He shared a story of a child as a patient undergoing an operation. While the anesthesiologist injected anesthesia into the patient, the injection never worked, even though the doctor gave him a higher dose. Soon, the doctors who were operating found out that it was because of the quality of the injection. After they tried a brand used in European countries, it immediately worked (HRTmh03, 2019). "Having poor quality medicines reduces the customers' trust of medical services in the country, and those who can afford, travel abroad for medications", said the company.

The company claimed that "the government only pays attention to the expiry date of the medicines rather than actual quality". If a health care provider is to be trustworthy, the company should import its own trusted brands from a reliable source, otherwise, it will reduce customer trust, given that poor-quality medicines give no response in terms of treatment. "The so-called government compliance and quality control also do not allow private hospitals to have their own blood bank", said the officer. If a patient hospitalized in a private hospital requires blood, the blood has to be requested from the government administered blood bank. This restriction has caused the company to lose momentum and revenues, and to underperform (HRTmh03, 2019).

4.2.10 Taxation and Depreciation of Assets

Unfair taxation is another detrimental factor. The firm codified as HRTmh03 has explained that due to lack of a competent taxation system in the Mustofyat (Government Finance Department), the firm has been charged irrationally on sales taxes. At the time of this interview, the executive officer said that they were sent two letters from the Mustofyat, claiming that they should have paid more taxes than they actually paid in the first quarter. Therefore, they were fined almost half a million Afghani, the equivalent of €5800. Given the lack of a functional system ensuring transparency of processes, his firm was in serious trouble. The firm has mentioned that the rationale for sales tax was that one random day, a representative came to the hospital and saw the number of patients. And then they made assumptions that this particular hospital made a lot of sales, and therefore they had to be charged a certain amount of money (HRTmh03, 2019). A micro-enterprise with two staff offering health care

services allegedly had to close down the business only because of the Mustofyat. As the chief of the company's decision suggested, it was because of the irrational judgment of the finance department on who had to pay how much depending on if informal payment was secured. Reportedly, he was not allowed to include his costs such as electricity tariff, ignoring that this particular mall had one single electricity tariff for the whole mall, not individual tenants. The mall itself had individual electric meters based on each small company, the administration of the mall charged them (HRTari07, 2019).

HRTap02 has highlighted a key issue regarding tax payment. "Even if a company tries to follow the procedures and regulations, still the company is forced to pay bribes without which things do not move forward at all", said the vice president (HRTap02, 2019). MZRhq01 has expressed its deep concern over the tax system. Reportedly, the company was made to pay taxes independent of net profits. The firm shared a case study in which it made 50,000 USD loss from exported goods, but still, the firm was made to pay income taxes. The rationale behind tax investigators from the tax office of the Finance Department was that the current market price of flour in the market was high, and how the net profit was judged without taking into account the direct and indirect costs, fluctuation of commodity prices, date of import, available inventory, price of particular brands, etc (MZRhq01, 2019).

MZRtj05 also recognized the taxation system as a business barrier. "While firms are subject to 25% income tax, If the firm loses money, there is no means to carry tax forward", said the CEO. He told his story, that his company was never allowed tax loss carry forward; it was only allowed for those with networks or connections or those willing to pay informal payments for which tax authorities then would find a way to do it. Customs tariff concessions were not found transparent and only offered to those firms with certain connections. The firm described a scenario, "When the country is in need of 10,000 tons of food items urgently, then the government only grants this opportunity to one firm to export the food items without custom tariffs" (MZRtj05, 2019). "This also applies also to oil and gas", he added. Due to trade barriers, the firm has downsized its operations.

Another firm codified as MZRah06 has expressed its concern over the non-transparent taxation system. The firm shared its particular situation, where the firm was charged taxes independent of profits. The CEO said, "Every three months, the firm is required to write operations reports to the Mustofyat / Provincial Finance Department. If the firm reports losses rather than profits, the Mustofyat does not accept it". Reportedly, in one of the quarterly reports, the firm reported losses. Therefore, the Mustofyat claimed that the firm was lying, and a charge was filed. Given a poor judiciary and dispute resolution process, the firm was forced to pay a USD 3000 bribe to be discharged from tax authorities. The CEO added, "The way we do business, selling products, the tax authorities' method is to force companies to make informal payments". The firm has identified the Mustofyat and taxation system as serious barriers to domestic investment (MZRah06, 2019) Tax loss carry forward and domestic investment protection are key issues, due to which the firm has had a drop in its performance.The firm reported that its operation was challenged seriously from the tax office despite a loss. The CEO of the firm described the taxation system as non-transparent. He stated his concern that "Companies are charged taxes, not as a proportion of their net profits but based on the tax office's best judgment,

which is based on current market prices, the number of customers on a random day, and of the tax authorities visiting some of the affected companies". Apparently, companies in Afghanistan do not have a transparent accounting system either. It is normally a paper-based accounting system based on which potentially not all transactions are recorded. Potentially, there are some firms that benefit from this mess and firms which suffer from it (MZRah06, 2019). MZRnaa12 suffered double taxation. While the company makes tax payments to the Government of Afghanistan, it also pays taxes to the Taliban, in particular in Andkhoi district, located in Faryab province. Reportedly, the government of Afghanistan does know the problem, but is unable to take action. The company claimed to have a higher operational cost due to double taxation. The firm stated that they have two choices: either pass the costs on to customers, whose purchasing power is declining, or get margins further squeezed (MZRnaa12, 2019).

Data management in taxation was described to be the cause of constraints that the companies face. There have always been pressures from the Mustofyat for attempts to charge higher income taxes and pushback from companies to pay less. "The fact that there is no proper data management to keep records of exports, sales, and profits are sources of dispute", explained the CEO. Therefore, it leads to putting the firms in difficult situations, depending on the individual tax officer's judgment (MZRpha08, 2019).

Business signboards are subject to municipal charges. Allegedly, the firm was asked to pay 7000 Afs during the payment of taxes for signboards which the company refused to pay. While the firm paid 20,000 Afs in 2018 as an annual signboards charge, they were charged 45,000 Afs for 2019. Higher charges were explained due to the company's refusal to informal payments to the Herat municipality officials. The firm asked the reason for more than 100% higher tariffs this year. The municipality officials apologized, saying that they made a mistake last year. Unfair charges of taxes by various government officials have caused the business to underperform, given costs are increasing while revenues are not increasing proportionally to cover the extra costs. Reportedly, there is a guideline by which tariffs are issued. Since this guideline is not publicly known and understood, varying interpretations of the guidelines are done and misused because of requests for informal payments.The company said that it was charged for multiple licenses. For example, licenses were issued from multiple sources, namely the municipality, Afghanistan Investment Support Agency (AISA), and the Ministry of Health. This has increased the administrative burden and costs to manage multisource licenses (HRTmh03, 2019).

Depreciation of assets is not allowed and practiced in the accounting system in Afghanistan. "The hospital has not managed to apply depreciation costs to date", said the executive officer. He explained the case of the ultrasound machine, which costs around 30,000 USD second hand. The fee per patient was around 150 Afs for the ultrasound test. The 50 AFs are the doctor charges and 100 Afs the hospital share. In practice, the government system does not recognize depreciation costs as part of the expenses. When the machine needs repairs, the firm has to pay the costs from its net income (HRTmh03, 2019). HRTe01 has several production lines: diapers, hygienic towels, etc. The company has not been

able to charge the depreciation costs of the fixed assets since its establishment more than a decade ago. Given a systematic constraint in the supply chain in terms of skills, access to the raw materials, equipment, etc., firms have to bear the extra costs to cover depreciation costs from its net income (HRTe01, 2019).

Lack of a functional taxation system, combined with an inefficient bureaucracy, are constraints the firm faces; therefore, firms' resources are occupied significantly with the taxation bureaucracy. Afghanistan got a score of 42.2 out of a potential score of 100 in 2020 doing business index. With a mean of 69.1, a standard deviation of 16.9, Afghanistan is 1.59 standard deviation below the mean as shown in Figure 2.52. It shows the performance of Afghanistan on paying taxes. Its performance has been declining since 2006. The Z-score shows that since 2016, the country has between 0.6-1.59 standard deviation below the global average/mean. The 2020 Z-score describes the country to have lower performance than 94.41% of the world's countries, as shown in the
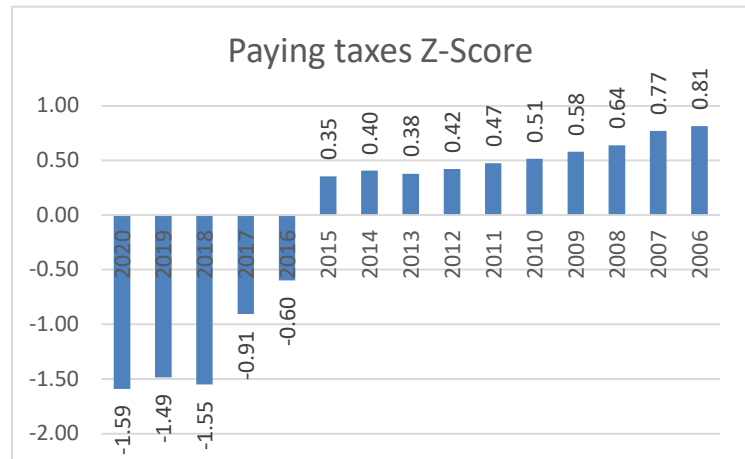
Figure 2.52: Paying Taxes Z-Score Afghanistan
Source: World Bank, 2020i analyzed by the author

bell curve Figure 2.43g. It has a percentile ranking of 6.60% in the 2020 World Bank Doing Business Report. The country had a better performance in 2006 in comparison to the 2020 reporting when it comes to the comparison of the economies around the world on paying taxes. On average, companies spend 270 hours on paying taxes. The companies spend 111 hours to comply with a corporate income tax correction. It takes up to 33.14 weeks to complete a corporate income tax correction (World Bank, 2020i).

4.2.11 Political Instability

Many firms do not post their names on their offices for security reasons. HRTe01 has not been able to do marketing properly due to insecurity issues. Due to political instability, the firm does not feel secure putting its billboards even outside its factory. "The business community is exposed and under serious threat of kidnapping", said the CEO. "Roads are not safe for transportation of goods domestically either", added the CEO. The management needed constant supervision and evaluation of the situation to find the safest options to transport. In a related matter, the currency normally depreciates against foreign exchange. While the company has to buy the raw materials in foreign currencies, sales are in the local currency. The price per unit has not been increased in proportion to the high cost of materials (HRTe01, 2019).

The deterioration of security in northern Afghanistan has negatively affected the firm's performance. The firm planned to grow its sales from 13,600 tons a quarter to around 20,000 tons. This has not been possible due to the loss of confidence in the market. The deterioration of security has badly affected the performance of the firm in the last two years, increased costs, made sales volatile, and squeezed margins (MZRm09, 2019). A firm codified as MZRhq01 identified political stability and security as pre-requisites for business performance. The firm pointed out that in Afghanistan's calendar year 1395-1396 or 2016-2017, its performance was good, aided by good political stability and security. The firm expressed concern about the safety and security of its exported goods from abroad and internally in the domestic markets. In anticipation of upcoming presidential elections, the firm was planning to stop operations due to associated uncertainty around it. Based on previous experience, during elections, the security situation would further deteriorate, and the business environment would become more volatile and unreliable (MZRhq01, 2019).

Established in 2007, MZRns02 also identified security as a prerequisite for good business performance. It will increase consumer confidence, encourage investment, and benefit economic growth. Unfortu-nately, political stability has been volatile, and this has negatively affected business performance. Po-litical events, in particular elections, tend to be the main cause of business underperformance. Con-sumer confidence are being reduced (MZRns02, 2019). MZRhl03 has identified political instability and insecurity as reasons why it could not keep high inventories due to high risks. Insecurity also has neg-ative impacts on economic growth. Therefore, the firm believed that security was a prerequisite for investments and business performance; political instability has even affected the means of communi-cation. Mazar did not have an internet connection for over 20 days due to the Taliban threat in July 2019. Business community has even had trouble communicating with their counterparts ((MZRhl03, 2019).

A firm codified as MZRia04 mentioned that security has caused the firm's business to underperform. Between 2005-2010 when the economy was performing better in parallel to good security, the firm performed well (MZRia04, 2019). The CEO of MZRtj05 said, "Domestic investors are not protected, and investments overall are vulnerable", He added that, "Firms' officials are likely to be kidnapped, and are threatened when they talk about growth and expansions in the long term", (MZRtj05, 2019). MZRah06 mentioned the deterioration of the security situation as a contributing factor in discouraging house-holds from construction activities. This has negatively affected the sales of construction materials, namely cement, metal bars, and tar. The firm has identified security as a key driver behind a good business performance (MZRah06, 2019).

Though the firm has survived for almost 21 years, due to security deterioration, its economic perfor-mance has declined. Overall, the market was described to be declining or in a recession. A week before this interview took place, the firm laid off five of its employees. The firm expressed concern that, given the upcoming presidential election, the economy would suffer further based on history. The firm's president saw political stability and security as key drivers of economic growth and market perfor-mance, which would drive business performance. The firm emphasized that due to security issues and

political instability, it had to spend more on security measures. For example, the president held six bodyguards for his private protection. The government did not provide any support for entrepreneurs in terms of their own safety and security or the firm's. The president shared that some of his peers are closing down due to the deterioration of security, and direct threats they experienced (MZRnaa12, 2019).

The theory of risk and return does not apply in Afghanistan. Given a volatile and high-risk area such as Afghanistan, the vice president mentioned that the company could not make a good net profit beyond 10-15%. However, there are also some associated risks that can wash away all or part of the capital, such as security incidents, destruction of plants, machines, kidnapping, etc (HRTap02, 2019).

As shown in Figure 2.46b, the performance of Afghanistan on political stability and the absence of terrorism has been noted to be very volatile. It has a percentile ranking of 0.5% in comparison to the rest of the world in 2018. That means the country has a lower performance than 99.5% of countries in the world. As shown in Figure 2.46e, the rule of law in the same year has a percentile ranking of 4.33%. That means the country has a lower performance than 95.67% of the world (World Bank, 2018f). Afghanistan was ranked last or 163 on the global peace index in 2019 (Vision of Humanity, 2019). Afghanistan suffered from terrorism second most after Iraq in the world in 2018, based on the global terrorism index among 138 countries. The country had 1168 terrorism incidents, 4653 fatalities, 5015 injuries, and 254 cases of property damage (Vision of Humanity, 2018). However, the country has replaced Iraq in 2019 with a 59% increase in deaths in comparison to 2018 (Vision of Humanity, 2019).

Based on the Uppsala Conflict Data Program (UCDP) Georeferenced Event Database (GED) Global Version 19.1, there were 152,616 structured events of armed conflict, non-state conflict, and one sided violence around the world between 1989 – 2018 (note: UCDP defines an event as *an incident where armed force was used by an organised actor against another organized actor, or civilians, resulting in at least 1 direct death at a specific location and a specific date"*). 18.96% of these events took place in Afghanistan. As a result of these events, global casualties were reported as 3,067,090 of which 9.75% of them occurred in Afghanistan. Distributed by continent, 19.89% of the casualties took place in Asia, 4.18% in Europe, 3.57% in America, 7.92% in the Middle East excluding Syria, and 64.43% in Africa. Since Afghanistan is situated in Asia, 48.99% of the 19.89% casualties (298900/610180) in Asia were in Afghanistan,as shown in Figure 2.53c. That means Afghanistan had half (298900) of the total casualties in Asia (610180). Causalities that are caused by other reasons, such as suicide bombing, roadside bombs, etc. are not analysed here (UCDP, 2018).

As illustrated in Figure 2.53a-2.53b, Afghanistan has the majority of the structured events from 1989 till 2018. Figure 2.53b provides a detailed historical analysis based on the share of Afghanistan of casualties globally and from Asia. In 1989, Afghanistan had 145 structured events, which consisted of 6.09% world's structured event and 20% of those in Asia. However, this has increased to 41.35% of the world's events that took place in Afghanistan and 82.60% of Asia in 2018. Given a volatile situation as such, it makes it extremely difficult for entrepreneurship to function, be promoted, and perform well.

The fragile states index which is based on thirteen indicators (Security Apparatus, Factionalized Elites, Group Grievance, Economy, Economic Inequality, Human Flight and Brain Drain, State Legitimacy, Public Services, Human Rights, Demographic Pressures, Refugees and IDPs, and External Intervention) has rated Afghanistan a score of 102.9 out of the highest score of 120 which is the worst score in terms of fragility. A score between 90-120 means alert, 60-89.9 means warning, 30-59.9 means stable, and 0-29.9 means sustainable. States that are more fragile than Afghanistan are Yemen, Somalia, South Sudan, Syria, the Democratic Republic of Congo, Central African Republic, Chad, and Sudan (Fund for Peace, 2020).
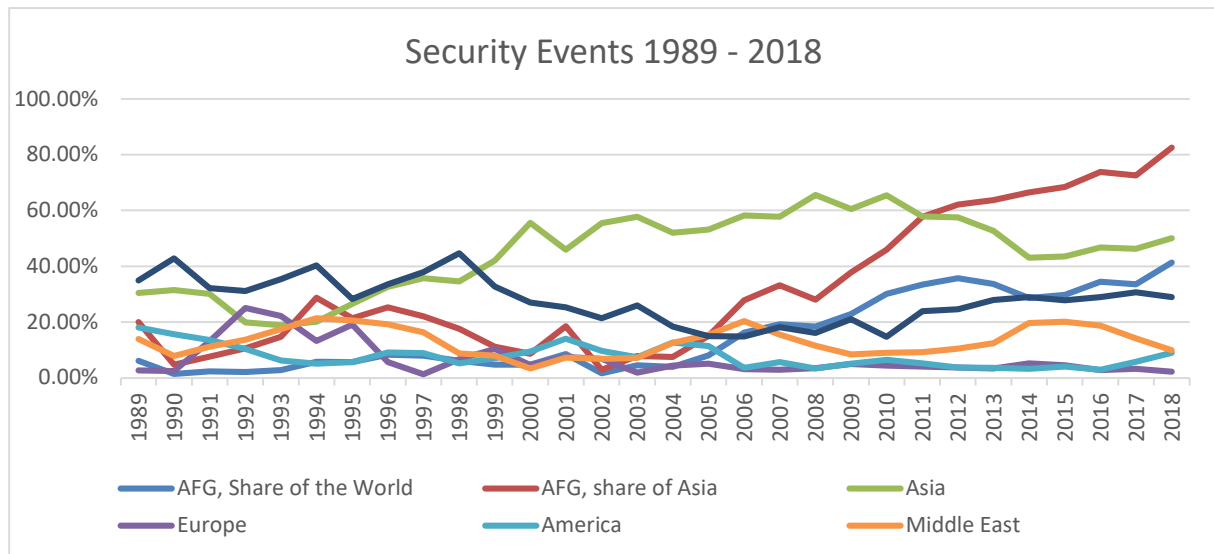
Figure 2.53a: Structured Events or Organized Violence in Afghanistan

Source: UCDP, 2018, analysed by the author

4.2.12 Unfair Competition

A firm codified as HRTe01 laid off about 15 people recently. They stated that unfair competition has been a factor that contributed to the underperformance of the firm. "Some rivals occasionally import raw materials to Afghanistan, which are regularly needed by the company [HRTe01] to produce certain goods. The rival, upon customs processing, declares a high purchase price of the raw materials , aimed to deliberately pay high tariffs", said the CEO. He added, "The purpose of the rival is that when the next time [HRTe01] imports the raw materials as inputs for production, it will make the company pay high tariffs as customs will look at the previous import records done deliberately by a rival". Given that the customs office uses the previous tariff amount as the foundation to charge tariffs, it increases the company's costs of inputs, squeezes margins, and undermines the business performance eventually. "The rivals do not need the raw materials for business use, but only to undermine the performance of his firms unfairly", said the CEO. The customs officials were described as incompetent to realize the issues, as they charge high tariffs without being willing to listen to the company (HRTe01, 2019).The customs office does not accept the invoices as the purchase price of the raw materials as a base for the tariff. The key purpose of the rivals was to make the company go bankrupt. For instance, cotton is

a regular input the company needs to produce various hygienic products. The rivals, as competitors, deliberately import the material in a way that the customs fee for the cotton as a raw material is charged higher. As indicated above, higher customs tariffs increase the cost of manufacturing the products, and the firm had to charge higher prices to the domestic markets, taking into account the additional costs. Therefore, competing against imported substitute products becomes difficult. His firm's sales have dropped and the firm had to lay off 25 of their 50 employees in the last year. And its market share has been reduced from 20% to 5% (HRTe01, 2019).

After the opening of the Herat industrial park, in which 380 factories started to work more than 15 years ago, several Iranian factories went bankrupt. Those products that had been imported from Iran started to be produced in Afghanistan. According to one respondent, Iranian companies have attempted to manipulate the market to increase raw materials tariffs to disrupt production in Afghanistan as revenge (HRTe01, 2019). The Afghan government was described as uncooperative to realize the issues and take a systematic approach in supporting entrepreneurship in particular manufacturing industries in Afghanistan.

A firm codified as MZRns02 mentioned that unfair competition from huge companies has put his firm, which is considered a micro firm, in a difficult situation. Given the large companies' connections with senior government officials, in particular customs officials, their goods are processed as a higher priority in the customs office than a normal business process. The large companies also screw the markets with low prices, since they pay either less or no customs tariffs as their additional unfair competitive advantage. Certain firms illegally act as a monopoly on certain goods, cooking oil, construction timber, chemical fertilizer, oil, gas. The so called "monopolistic firms" have unfair competition in the domestic market. Some respondents referred to these firms as mafia. The firm has mentioned that since there are no border controls, some firms smuggle flour or substitutes to Afghanistan without tariffs and offer the goods at lower prices.These actions have also been associated with the mafia. This is considered an important issue (MZRns02, 2019).

Another respondent reported money laundering. Some drug smugglers, after smuggling their drugs into Iran and receiving large amounts of cash, purchase goods on the Iranian market and import them to Afghanistan, selling the goods below market price as a way to quickly convert goods to cash. This situation undermines the performance of those companies that pay tariffs and do business legally in Afghan markets. Some firms offering products such as construction materials, building materials, household items, and food expressed their concern over this (HRTab05, 2019).

4.2.13 Supplier Fraud in Central Asia

One firm told of a bad experience or secret, of a sort that people rarely talk about it. In 2005, a Moscow supplier received 200,000 USD to deliver flour and wheat. They never delivered the order. The firm stated that they could not get any support from the Afghan government, or from the Russian consulate

in Mazar. In case a company is a victim of fraud outside Afghanistan, the company cannot rely on the government, said the executive officer (MZRm09, 2019).

The firm codified as MZRia04 told the researcher that some suppliers in Kazakhstan and Uzbekistan cheated the Afghan companies. The contract required high quality at a defined standard. However, most of the time, the suppliers delivered a lower quality than contracted. The company had no choice to take action against the suppliers, as they had paid in advance. "The firm doesn't have many options in dealing with suppliers in Kazakhstan", said the vice president. The firm added that "several firms in Mazar always have to wait between 2-3 months to get their products delivered later than originally contracted". "Sometimes, suppliers charge a higher price than agreed in the contract", moaned the vice president. The government of Afghanistan has not offered any assistance. "At the moment, the firm has been waiting for two months to get the products delivered." The vice president said that his company is not the only one that has to deal with issues like this. "There are so many other firms in the same situation", whimpered the vice president. The firm found the government ineffective in protecting investors in a systematic and formal manner. Afghan companies are often abused by suppliers in Kazakhstan and Uzbekistan (MZRia04, 2019).

Another company that the researcher interviewed, codified as MZRgl13, experienced supplier fraud in Kazakhstan. The company paid the supplier in advance for consumer staples, in particular wheat and flour, but the products were never delivered. "Suppliers always get paid 100% in advance", said the CEO. There are neither legal nor political supports from Afghanistan's embassy in Kazakhstan to follow up such cases. The embassy has been contacted, but has not responded. The government of Kazakhstan does not take action to assist Afghan firms cheated by a resident firm in Kazakhstan (MZRgl13, 2019).

4.2.14 Sanctions by the United States

Sanctions imposed on Iran have increased the cost of transportation to Afghan consumers. Afghanistan has relied significantly on Iran to import goods, especially through the port of Bandar Abbas. "Given the tighter American sanctions, Afghanistan's businessmen are not able to import goods via Bandar Abbas", said the CEO. "Chabahar has been an alternative to Bandar Abbas, but it does not respond to the current import demands of Afghanistan."The CEO expressed his concern that "Chabahar does not have as good an infrastructure to import goods as Bandar Abbas". There are some recently established routes, in particular, the Lajward (Lapis Lazuli) corridor and air cargo, but they are not cost effective or sustainable (HRTe01, 2019).

Bank transfers have been challenged since the United States sanctions on Iran have been tightened. Importing goods via Iran was easier; alternative routes have been expensive and problematic. The executive manager of the company has identified American sanctions as one of the key reasons contributing to the underperformance of his firm. The sanctions have affected negatively the supply chain

which was formerly regulated through Bandar Abbas. Alternative routes have been described as ineffective, expensive, and less reliable. Therefore, the company had to close down some of their representative offices from 68 locations in Afghanistan, which employed more than 1000 to around 700 people. American sanctions on Iran have also increased dollar exchange rates, since the currency is smuggled to Iran (HRTafp04, 2019).

4.2.15 Good and Flexible Business Strategy

A company that is codified as HRTap02 told us that the first thing they do is a market assessment, based on which they develop their products. The firm listed a few criteria of their strategic planning process: market assessment; product development; customer demands and needs; and pricing. The market assessment includes the study of the value chain, supply chain, customs, needs, pricing, market demands, supply, etc. Given data limitations in Afghanistan, the firm claimed that it deploys its own resources to do the market assessment. The firm would not launch any business line without proper market assessment. The firm provided us with a project that became a success – the launch of a countrywide laboratory called "lab chain" in 2016 (HRTap02, 2019). The first thing they did was a market assessment of the immediate needs or gap that required business solutions. The company learned that what was missing was "a medical diagnostic lab". The firm decided to scale up its lab business line which started in 2011, across Afghanistan. The project, named Asia Lab, managed to scale up across Afghanistan , and has been successful (HRTap02, 2019).

The Asia lab project was well planned. And a key success criterion was quality. Building the branding of the project has been very important– the core focus of the project. The labs were equipped with high technology. Furthermore, the project has collaborated with other regional labs, especially the Lal Path Labs in India, to ensure high quality standards. The collaboration has been defined in terms of quality control and training of personnel. Having qualified personnel has been instrumental as a core part of HRTap02's success. Through this, they ensured that they have good plans and execute them well. The company's vice president, who is also a shareholder, believes that having qualified personnel has been a key prerequisite for a successful business in an environment like Afghanistan. A blue ocean strategy has helped the company to be one of the market leaders in the domestic market. When the company was established, it identified itself as the only player in the blue ocean. This helped the company to position itself in a competitive position which is considered an advantage. The company has assessed the overall domestic markets for medical needs and evaluated its unique capabilities to deliver goods and services that customers need (HRTap02, 2019).

A firm codified as HRTafp04 said that a good strategy encompasses market assessment, customer needs, supply chain, value chain, and potentials sales. The good strategy has been a key initial factor in the success and exponential growth of the company from limited stores in Herat in 1995 to 68 stores in 2019. The strategy was developed by qualified personnel, subjected to periodic review, and updated to reflect market needs. Had the company had a stable political situation 25 years ago, it would have

established and invested in production plants inside Afghanistan, licensing internationally recognized brands of medical supplies (HRTafp04, 2019).

Another company made a strategic shift in its business lines. It had been exporting tars and metal bars for 20 years. After a critical review of the market, the firm decided to change its business lines to consumer staples, focusing on flour, six years ago, or 2013. The firm looked at a few indicators, such as the increase of population, agricultural production, and capacity of domestic markets, and decided to make critical decisions. The firm has made higher sales and profit than originally forecast in the initial years after the shift (MZRm09, 2019).

A company codified as MZRns02 regrets that it did not start its business earlier than 2007, when economic growth was booming . After its establishment in 2007, it managed to benefit for the first seven months. However, after the presidential election, the construction industry started to shrink. Therefore, sales were reduced. The executive has learned to make market assessments earlier. The company had to shut down its branch in Kabul (MZRns02, 2019).

Firm MZRhl03 should have established plants in Afghanistan to produce food items. The firm believes that it has lost its momentum and establishment of plants should have been part of their strategic plan. The firm indicated that pricing is the only tool to compete with the competitors (MZRhl03, 2019).

The company codified as MZRah06 made a strategic mistake in a contract. The CEO said, "I purchased 1000 tons of metal bar from a foreign supplier though there is no demand for it in domestic markets" The terms and conditions of the contract were poorly negotiated (MZRah06, 2019). This strategic mistake has caused losses to the firm. However, the firm was optimistic that the losses would be offset by another business line, animal skins, to be exported to Finland soon.

MZRhps10 made a strategic financial mistake in accounting. Accounts receivable were delayed, putting the company in a tough situation to finance its operations. Poor creditworthiness of customers and poorly negotiated credit terms and conditions have exposed the company to a high liquidity risk. At the time of the interview, the company had USD 40,000 accounts receivable. That is a high number for a small company. The cost of finances from alternative sources is high. Financing investment opportunities through private equity would also not be a good option, as the company was performing poorly, and local investors would not be attracted to it (MZRhps10, 2019).

4.2.16 Customer Relations

"HRTap02 considers customer relations to be a fundamental principle", said the vice president. The vice president added that the firm would see the relationship as a valuable, long-term asset. The firm has built trust with customers by providing quality services and products. Given its 16 years of experience in the domestic market, the firm believes that customer relations was a key success criterion, said the vice president (HRTap02, 2019).

A firm codified as HRTafp04 with 68 company's representatives across Afghanistan pointed out that customer relations has been a key factor in building trusts among its customers. The company has supported a range of medical personnel for academic training and conferences. That means the company has built a relationship with medical communities, addressing their capacity needs to cater effectively to the medical needs of the Afghan communities. Through high quality products, customers were convinced to use the company's medicines in offering medical solutions in Afghanistan (HRTafp04, 2019). The company told us that they use the PESTEL (Political, Environment, Social, Technological, and Legal) model to assess the macroenvironment and a market assessment to learn about the microenvironment which involves customer feedback, interviews, product testing, packaging testing, and market needs. This approach has been institutionalized in the company business operating procedures before launching a product. The executive manager emphasized that this approach has allowed them to study market demands and customer needs, while planning things in an appropriate, efficient, and effective manner. For example, if a firm would like to make a new product to enter the market, they have a check list to be followed. The firm studies all substitutes, market consumptions, and current packaging, and incorporates feedback from current users, and then decides whether to enter the market with that product. This also includes proper calculation of pricing factors, considering the law of demand and supply, elasticity of demand and supply, and determinants of demand and supply. Given current constraints, the company has around 70% market share of government contracts supplying the Ministry of Health and Ministry of Defense, since customers have found the products useful. The executive manager said that the company has a market share of around 23% of domestic markets (HRTafp04, 2019). The company has business in other countries, including Germany, South Korea, and the U. S. A. HRTafp04 started with a few stores across Afghanistan and grew to 68 stores, though recently it has downsized its operations due to insecurity, economic underperformance, political instability, etc. Current business lines include dried fruits, diapers, medicines, medical equipment.

Building a strong relationship with a wide range of stakeholders has been a great success factor for the company. Through good collaboration with stakeholders, especially other companies domestically and internationally, the company has recognized the market opportunities and made the right investment decisions. Based on the firm's experience, there are seasonal opportunities and a good and professional firm should recognize it to be able to perform well (MZRpha08, 2019).

4.2.17 Differentiations

HRTafp04 has contracts with famous companies, including Julphar, based in the UAE. It offers quality products in Afghan markets. "The focus of the company has been quality, not quantity", said the executive manager. Since their products are high quality, their prices are also relatively high. Since the products are produced at international quality standards, the company makes sure to provide high quality products at a reasonable price serving customer needs, building trust among medical communities (HRTafp04, 2019).

The firm that import flour has identified itself as a differentiated firm that pays critical attention to quality and brand building. Over its 28 years of market experience in Afghanistan, it has been sure to bring in quality products with certain brands. Therefore, the firm has been recognized for its quality products, and its customers have been satisfied and willing to have long term relationships with them. Having good quality flour as one of its recent business lines has also increased the market demand from certain consumers (MZRm09, 2019). The firm has confirmed that as soon as their products reach the border, they are sold out. The firm has defined certain standards. The standards have been consistently verified with suppliers. Seriously following the standards has created trust among its customers. Therefore, the firm has good performance, though recently it has been undermined by deterioration of security (MZRm09, 2019).

Quality has been a critical criterion of success in dealing with customers in Central Asia. The firm is careful to deliver products in the respective markets based on the given samples. This approach has assisted in building good relationships and trust among the customers in different Central Asian markets (MZRtj05, 2019). MZRnaa12, has been in business for almost 21 years. It attributes its longevity to building good brands through offering good quality products. It was ensured through good quality control. The firm has insisted that a defined quality has been offered to the customers and the quality has been maintained without variation (MZRnaa12, 2019).

4.2.18 Market Demand

The executive officer of the company codified as MZRm09, established 28 years ago, identified learning about market demands as the factor on which the company constantly bases its actions. The officer emphasized that "market demand is assessed on a daily basis in the consumer staples markets where market participants include export firms, wholesalers of food, and retailers". Having participated in this market for years, the firm collects data and communicates it to the planning team, and verify them with their inventory to forecast the demand for the future. The leadership gets the forecast and reacts to the market demand in an efficient manner.The firm import food items such as flour, wheat, and cooking oil from Uzbekistan and Kazakhstan to Afghanistan. The respondent said that market demand is closely correlated with pricing. For example, if a particular flour brand is more expensive than others, then this firm reacts based on the law of supply which suggests the relationship of the price and goods supplied, the higher the price of certain goods, and higher the goods supplied. Having its main office in Mazar provides a good opportunity to have access across the region, namely the provinces of Jawzjan, Faryab, Sari Pul, Samangan, Kunduz, Takhar, Badakhshan, and Baghlan. Mazar serves as the economic hub for the north and northeast parts of Afghanistan, which encompasses those 9 provinces. Furthermore, it covers the market demand for Kabul and Kandahar, which is in the south of Afghanistan. For the last three years, due to the deterioration of the security, the market has been down (MZRm09, 2019).

One company told the researcher that a key factor maintaining its growth at a satisfactory rate is addressing market demands based on the core capabilities of the firm. It has managed to remain focused

(MZRns02, 2019). The firm uses its capabilities to supply a number of commodities based on market demands. A firm codified as MZRhl03, based in Mazar, has identified addressing market demands through a market assessment as a good factor for their business performance. The firm looks at a few variables, namely industry analysis, market analysis, competitive analysis, and customs analysis, to decide which products to offer to customers (MZRhl03, 2019). Keeping other variables constant, from 2005-2010, the market demand has been more on construction. Therefore, the firm had focused on construction materials as a key part of their business lines. Given that market data is not easily accessible, the firm assesses each individual market for different products. Each product has its own separate market in Mazar. For example, metal bars have their own market, similar to other products. Therefore, with a close assessment of each market, the firm collects market data from each market and makes a decision (MZRhl03, 2019).

A firm codified as MZRtj05 exports dried fruits to Central Asia. The business approach to decide on exports to the respective markets begins with a market assessment. Through the market assessment, it collects market data from Central Asia and makes an analysis of the expected costs in Afghanistan. This approach has helped the firm to maintain its position for the last 14 years, since 2005 (MZRtj05,2019). MZRah06 stated that without consideration of market demand taking into account the PESTEL, the firm purchased 1000 tons of metal bar from a foreign supplier. Low market demand, affected by the deterioration of security, cost the firm thousands of dollars. One of its loans went into default, and it had to sell its collateral (MZRah06, 2019). MZRnaa12 started their business with an office desk made of cardboard 21 years ago, in 1999, in Mazar. The firm's first import was one container of goods from Iran which consisted of consumer discretionary items such as perfumes, creams, and hygiene related items. The business slowly moved to increase its business lines, adding products such as cooking oil, wheat, flour, and wood, and expanded its international footprint from Iran to Russia and Kazakhstan. The firm periodically collects market data and addresses the market demand, taking into account the macro-environment, especially political stability and securities issues. The firm has expanded its footprint exponentially over the last 21 years. Aligning their products to market demands was a strategic contributor to the success of the firm (MZRnaa12, 2019).

Though the company has been affected due to a supplier's fraud in Kazakhstan, the company's success was explained by a careful market assessment. It closely worked with market participants, including following up market demands, so that it could better plan its purchases, (MZRgt09, 2019)

4.2.19 Language as a Core Capability

Since the firm's leadership and employees speak the same language as its suppliers in Uzbekistan and Kazakhstan, this has helped to build a good relationship with suppliers in Uzbekistan and Kazakhstan. The firm's sales are among the highest among 80 firms that import flour and wheat. They import 200 containers quarterly, equaling 13,600 tons (200 containers * 68 ton = 13600 tons). The firm has identified that speaking Uzbek is one of its core capabilities. It has been a unique asset in building a good relationship with its suppliers. Building a good relationship with the suppliers has also put the firm in

a competitive advantage to negotiate better trading conditions with its suppliers abroad (MZRm09, 2019).

4.3 Conclusion

It has been proven that six variables: access to finance; market conditions and business environment; good infrastructure, access to skills; access to innovative assets; and good institutional and regulatory framework influence the rate of success. In other words, there is statistical dependency between the rate of success and the mentioned variables, tested through a simple linear regression.

In general, access to finance has averaged 48.69% among 161 companies. High interests rates, functional business banking systems catering to the needs, and hedging counterparty risks have been the burning issues. On market conditions and business environment, the average access has been 65.77% better than access to finance. In addition, norms and standards or regulations as non-tariff barriers, accessing international markets, the low purchasing power of households in domestic markets, increasing poverty rate, unemployment, insecurity have been key factors challenging entrepreneurship.

On infrastructure, the average access has been 41.34% among 161 companies. High transport costs, inefficient border management and customs, concerns over safety and security of transported goods, lack of insurance in transportation, unfair and unequal transportation services, transit issues, high energy costs, communication problems including internet, and poor logistical services were key issues. The average access to skills has been 61%. While access to specialized skills was a problem, those with access to skills performed better in the market. Average access to innovative assets was 49.90%. Average access to the institutional and regulatory framework has been 43.7%.

In addition, a poor enabling environment, lack of government support, corruption in customs offices, compliance and quality control, problems with the taxation system, and malpractice of depreciation of assets, political instability, unfair competition, suppliers' fraud in Central Asia, and the United States sanctions on Iran were factors challenging seriously the performance of some companies. A flexible business strategy, customer relations, a differentiation strategy, offering products and services as per market demands, as well as language as core capabilities were found to be factors that contributed to the success of some companies.

In the next chapter, the research findings will be wrapped up and concluded. The chapter will also provide recommendations for future potential research, which were not covered in this research, given the narrow focus of this research.

5 CONCLUSION

In this chapter, the thesis findings will be summarized, wrapped up, and concluded. This includes how this research has contributed to the existing literature on Afghanistan, potential implications for the stakeholders, and suggestions for future research.

5.1 Summary

The research started with a big picture review and analysis of the relationship of entrepreneurship with multiple factors, including economic conditions, political stability, the entrepreneurial ecosystem, and competitiveness, bringing real-life examples in some cases, from more than 100 countries.

Linking the big picture to Afghanistan's context, the research has reviewed and analyzed the country's economy focusing mainly on import, exports, Afghanistan's ecosystem, business reform, entrepreneurship barriers, infrastructure, logistics, risks, and uncertainty. It has been noted that the country has not been reviving a political stability to ensure a good entrepreneurial performance. The economy has been improving, as has the ecosystem, while the performance of the economy and the entrepreneurial ecosystem has been noted to be volatile and vulnerable to degradation in several cases. Volatility and vulnerability are considered barriers to entrepreneurship performance.

Afghanistan has had a significant current account deficit. Its trade destinations have been increasing, but remain concentrated in the neighboring countries. This approach is considered risky. Foreign direct investment (inward) has been increasing, along with the economic fitness of the country, though both are volatile. Financing is considered a key issue, and businesses have limited access to it. Getting loans is complicated, requiring collateral, while high interest rates tend to make companies go bankrupt. On average, 12.93% of companies defaulted between 2010-2018. There has been some reform, but still not enough to cater to the needs of companies in a complex, volatile, and uncertain environment. The entrepreneurial ecosystem, in particular customs efficiency, infrastructure, logistics competence, business regulatory framework, and overall political stability have not been improved significantly over time, thus not accommodating the needs and priorities of entrepreneurship.

Linking both the big picture and Afghanistan's contextual framework, six hypotheses were designed to analyze the factors of failure and success of entrepreneurship in addition to the qualitative component to get inside the story. The hypotheses have proved that the performance of entrepreneurship depends on a good entrepreneurial ecosystem.

The first hypothesis has been tested, where there is a dependency between the rate of success as the dependent variable and access to finance as the independent variable. With an R square of 0.14, a t-stat of -5.15, and a p-value of 0.0000, it provides evidence on the dependency of the variables. The average access to finance has been 48.69% of 161 companies. High interest rates, complex loan procedures, misalignment of loans with the local context, poor banking services, especially for international transactions, reliability, lack, and unaffordable relevant financial products to hedge credit risks,

especially letters of credit, have been key factors identified in the bilateral interviews with the companies.

On the second hypothesis, statistical dependency between the dependent variable rate of success and market conditions and business environment as the independent variable were found. With an R square of 0.10, a t-stat of -4.19, and a p-value of 0.0000, it provides the evidence of the dependency between the variables. The average access to the independent variable has been 65.77% among 161 companies. Access to international markets, non-tariff barriers, in particular regulations, extremely difficult visa regimes of most of the countries for Afghan companies, and institutionalized assistance in trading were identified as key factors challenging the performance of entrepreneurship. Macroenvironment such as the increasing poverty rate, reduction in the purchasing power of households, and political instability were identified as additional barriers to existing problems on business performance.

On the third hypothesis, there is statistical dependency between the dependent variable "rate of success and "good infrastructure" as the independent variable. With an R square of 0.26, a t-stat of -7.48, and a p-value of 0.0000, it provides evidence of dependency between the variables. The average access to infrastructure has been 41.34 among 161 companies. Nepotism and favoritism in accessing infrastructure services, lack of insurance on transportation, inefficient customs office services, border management, unreliable shipment of goods, lack of energy, especially electricity, high electricity tariffs, a poor communication infrastructure, especially internet connectivity, and overall incompetent logistics services were associated factors challenging the performance of entrepreneurship in Afghanistan.

On the fourth hypothesis, there is statistical dependency between the variables "rate of success" and "access to skills" as the independent variable. With an R square of 0.26, a t-stat of -7.54, a p-value of 0.0000, it provides the evidence of dependency between the variables. The average access is 61%. While access to qualified industrial skilled labor is difficult, those with access to skilled labour have a relatively better performance than those without. The current educational system in Afghanistan does not satisfy the industrial skilled labour market. Some companies have to send their personnel abroad to train for specialized knowledge, especially in the medical field. On the fifth hypothesis, there is statistical dependency between "rate of success" as the dependent variable, and "access to innovative assets" as the independent variable. With an R square of 0.26, a t-stat of -7.48, and a p-value of 0.0000, it provides the evidence of the dependency. The average access to innovative assets has been 49.90%. On the sixth hypothesis, there is statistical dependency between "rate of success" as the dependent variable, and "institutional and regulatory framework" as the independent variable. With an R square of 0.19, a t-stat of -6.04, and a p-value of 0.0000, it provides evidence of the dependency. The Institutional and regulatory framework were rated 43.75% on average.

Another factor that we analyzed that contributed to poor entrepreneurship performance in Afghanistan was a poor enabling environment: poor government support; lack of promotion of domestic products; lack of access to supply chain; difficulties with property registration, land acquisition, and property transfer; non-participatory government; lack of investment protections; poor accountability; non-

responsiveness of government officials, and administrative burdens to make companies pay bribes. Their influence over entrepreneurship performance varies.

Massive corruption in customs offices was associated with serious and detrimental factors of entrepreneurship underperformance in Afghanistan. Smuggled goods, goods without tariffs, partially tariffed goods, double standards, favoritism, and nepotism of customs services contributed to the unfair competitive advantage to certain companies. Corruption increases the cost of imports. It also destroys competition if one company benefits from favoritism and nepotism in custom services and tariffs while others do not. A number of companies had to lay off personnel given underperformance, and even had to discontinue certain business lines. Corruption in customs offices was described as an organized crime, supported by senior politicians even in the presidential palace. The code to get things done in customs offices is informal payments, affiliations with government officials and senior politicians. Non-compliance of norms and standards led some companies to abandon certain business lines, given that the way to be approved for higher quality standards is also informal payment or affiliations with government officials and senior politicians.

The taxation system is another critical factor contributing to the underperformance of entrepreneurship in Afghanistan. An irrational tax basis, corruption as a factor to identify companies' tax base, a lack of transparency, the ineffective process of paying taxes, a lack of data management in the tax office, paper-based accounting systems in companies, the policy of not allowing asset depreciation in accounting, double taxation (Taliban and government of Afghanistan) and increased attempts of tax office investigators for to get personal gains were factors affecting the underperformance of companies in Afghanistan. Continued political instability, political events such as presidential elections and their effect on macroenvironment, and reduced consumer confidence were said to be detrimental.

Dumping policies, unfair competitive advantage, unfair competition from drug smugglers, and companies whose goods are not tariffed or partially tariffed, undermine profits and undercut market pricing, leading to the underperformance of certain companies, requiring some to lay off staff, to underutilize their production capacity, etc. Counterparty risk or fraud in Central Asia, in particular Kazakhstan, caused companies to go bankrupt. There have not been any financial products such as letters of credit, banker's acceptance, etc. to hedge against this detrimental risk. American sanctions on Iran have increased transportation costs for companies in Afghanistan, since the unsanctioned port of Chabahar is not as fully functional as Bandar Abbas, which was formerly used to export and import goods. In addition, bank transfers for business has been complicated by the sanctions. Bank transfers for trade with Iran are almost impossible. The alternative option is expensive and not safe.

For some companies, having a good and flexible strategy led to their success. Some companies decided which business lines to drop and which to launch, helping them to perform relatively better than those without a good business strategy. Poor strategic management also led some firms to go bankrupt or suffer severe financial losses. Private health care has been allowed in Herat, and transformed into a

competitive business. Certain companies rely on a differentiation strategy, with the provision of services that have helped them perform well based on market demands. And language has been noted to be a contributing factor to the success of companies. It has helped to build trust and to negotiate better terms and conditions in trading with counterparts in Central Asia.

In brief, the performance of entrepreneurship depends on microeconomic environment and macroeconomic issues. Both are related to each other, without which there is an imbalance of performance.

5.2 Contribution to the knowledge

The World Bank has been the main source of research about Afghanistan on various business-related topics on an adhoc basis. The main research has been noted to be enterprise surveys that are not conducted regularly, but the doing business index where Afghanistan is part of the regular reporting. There is relatively a large amount of research on entrepreneurship performance in other countries, but not much in Afghanistan. This research will contribute to the entrepreneurship discipline and fill the gap. It will provide a comprehensive study of the factors contributing to the success and failure of entrepreneurship in a complex environment like Afghanistan where things are hard to predict. The quantitative section will provide a good analysis of entrepreneurship performance in the country, and the rate of success have a relationship with the entrepreneurship performance. Through the qualitative story, a collection of factors are analyzed and modelled, showing which positively or negatively affect entrepreneurship performance.

5.3 Implications for relevant stakeholders

This research can be used by a wide range of stakeholders, primarily policymakers and academics. It can help the former to understand the barriers, obstacles, and factors inhibiting the performance of entrepreneurship and help them create effective programs catering to addressing the issues in an institutional approach. Given the national and international commitment to the financial independence of Afghanistan, this research can help policymakers understand the factors deeply through a comprehensive analysis and help them make informed decisions. This research can also be used by pro-business organizations as an advocacy tool to negotiate better terms and conditions favoring a better business environment for entrepreneurship in Afghanistan. As not much research has been done on this critical topic in academia, this research can also assist University lecturers and students to use as a scientific, in-depth study of the factors affecting entrepreneurship to help them do relevant and supplementary research topics in the area.

5.4 Future research

I would like to propose the following topics in the future to be researched:

The relationship of corruption in customs offices and entrepreneurship performance in Afghanistan

The relationship of the taxation system and entrepreneurship in Afghanistan

What is a good model of access to credit to fit the entrepreneurship context in Afghanistan (macroenvironment, business environment, contextual framework, etc.)?

These topics will help to understand the magnitude of the negative effects on entrepreneurship performance. This will dig deeper into the issues and hopefully help to fill the gap to make a good environment for entrepreneurship to perform in Afghanistan.

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APPENDICES

Appendix 1: Questionnaires

MODUL VIENNA UNIVERSITY
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Factors Affecting Success and Failures of Entreprenrushyp in Afghanistan

Questionnaires for Empirical Research

Firm's Name:	Address:	Segment:
Industry:	No. of Staff	Total Capital if possible:
Interviewee Name:	Position:	Established Year:
Contact #:		

Rate your Success: 1   2   3   4   5   or 0   1 (1 is the best, 5 is the worst)

Date: /   / 2019

اول: دسترسی به امور مالی (access to finance)

Loans are available in market to acquire for business purpose

در بازار قرضه بخاطر تجارت وجود دارد

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

In general, interest rates (spread) charged for the loans in Afghan market are reasonable

در مجموعه نرخ سود قرضه و یا فیصد که بالای قرضه سود گرفته میشه در بازار افغانستان مناسب است

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

The government has subsidized interest rates to make it affordable

دولت نرخ سود را سبسایدی نموده تا تاجران بتواند قرضه بیگیرند

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

There are alternative funding sources to finance businesses

گزینه های بدیل بخاطر برای تامین امور مالی کارو بار (تجارت) وجود دارد

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

The financing sources available in the market is aligned with local context in particular Islamic banking

منابع امور مالی موجوده بخاطر قرضه در بازار مطابق رواج و یا ارزش های محلی میباشد. مثلا بانک داری اسلامی

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

Banking system is functional and secure for business use

سیستم بانک داری فعال و محفوظ جهت تجارت میباشد

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

دوم: شرایط بازار و محیط تجارت (Market Conditions & Business Environment)

The government procures and supplies its demanded products from domestic market

دولت محصولات مورد نیاز خویش را از بازار محلی خریداری و تهیه مینماید

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

The domestic market addresses the demanded outputs of households

بازار محلی محصولات مورد نیاز مشتریان را تهیه کرده میتواند

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

There are barriers for investment and trading in domestic markets

برای سرمایه گذاری و تجارت کردن در بازار های محلی مشکلات وجود دارد

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

There are barriers to enter/access global market for investment and trading

جهت داخل شدن در بازار های جهانی برای سرمایه گذاری و تجارت مشکلات وجود دارد

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

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WKO PRIVATE UNIVERSITY Factors Affecting Success and Failures of Entreprenruship in Afghanistan

Questionnaires for Empirical Research

Competence and quality of logistics services are good enough for business performance

كفايت و كيفيت خدمات لوژستيكی به قدر كافی جهت تجارت خوب ميباشد

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

There are a lot of investment and trading opportunities

برای سرمايه گذاری و تجارت خيلی فرصت ها وجود دارد

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

سوم: زيربنا ها (infrastructure)

Border infrastructure & custom administration including electric systems have been strengthened for business efficiency both for imports and exports

زيربنا های سرحدات، اداره گمرکات بشمول سيستم الکترونی بخاطر مثمريت تجارت هم برای صادرات و واردات تقويه شده است

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

Overall, business logistics services, transport related infrastructure including timeliness of goods shipment to trade destinations are available, reliable and effective

در كل خدمات لوژستيكی، زيربنا های ترانسپورتی بشمول انتقالات محصولات به عرصه وقت به مقاصد و يا سمت های تجارتی به دسترس، قابل اعتماد، و موثر ميباشد

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

The business has access to energy including reliable electricity with the right capacity fit for business purpose

شركت ها دسترسی به انرژی بشمول برق ثابت يا ظرفيت لازم و مناسب بخاطر تجارت دارند

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

Internet connection is reliable, accessible, and affordable with good speed which can satisfy my business needs

انترنت قابل دسترس، قابل اعتماد، به صرفه خوب يا سرعت خوب كه ضروريات تجارت را مرفوع ميسازد موجود است

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

چهارم: دسترسی به مهارت ها (access to skills)

The business has access to specialized or skilled labor

تجارت دسترسی به كارمندان با مهارت و يا مهارت های خاص دارد

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

The business considers itself to have very good entrepreneurial skills

تجارت / شركت خود را دارای مهارت های تجارتی ميداند

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

The business employees get professional training as per need

كارمندان شركت برنامه های آموزشی را مطابق ضرورت ميگيرند

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

The business perceives itself to have a good calculation of risks and returns for investments

تجارت و يا شركت مذكور محاسبه خوبی از خطرات و مفاد ها جهت سرمايه گذاری دارد

كاملاً موافقم	موافقم	بی طرف و يا خنثی	مخالف هستم	كاملاً مخالف هستم	نميدانم
☐	☐	☐	☐	☐	☐

پنجم: دسترسی به دارايی های نو آوری (Access to Innovative Assets)

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Questionnaires for Empirical Research

The business has access to modern technology including Big Data Analysis for organizing business issues & business to increase productivity and profits (e.g. supply chain management, e-sells, e-payment, etc).

- تجارت و یا شرکت دسترسی به فن آوری مدرن بشمول تحلیل و تجزیه معلومات بزرگ جهت تنظیم امورات تجارت و افزایش محصولات و مفاد (مثلاً مدیریت تهیه، فروشات و پرداخت از طریق انترنت) دارد

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

The business has collaborative network with research institutions and other firms to introduce innovative business processes for profits and add values

- تجارت شبکه مبتنی بر همکاری با موسسات تحقیقاتی و شرکت های دیگر جهت معرفی پروسه های موثر تجارتی بخاطر فایده دارد

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

The business has institutionalized research and development efforts, partners with other firms for innovative business processes, ideas, and performance

- تجارت تلاش های سازمانی جهت تحقیق و توسعه دارد و با سایر شرکت ها برای پیدا نمودن پروسه های جدید تجارت، نو آوری، نظریات و اجرات مشارکت مینماید

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

ششم: چهارچوب قانونی و سازمانی (institutional and regulatory framework)

Overall, the complexity of regulatory procedures for entrepreneurship related issues have been simplified

- در کل، پیچیده های طرزالعمل های قانونی برای امورات تجارت شرکت ها ساده ساخته شده است

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

Property registration for business is complicated

- ثبت جاهدات و یا قباله برای تجارت مغلق است

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

Land acquisition from government for industrial or for business purpose is complicated

- اکتساب و یا مالکیت زمین از دولت برای صنایع و یا تجارت مغلق است

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

Public governance supports businesses institutionally (supports, training, coaching, consultation, problem solutions, marketing, etc).

- حکومتداری عامه تجارت را به صورت سازمانی حمایت مینماید (حمایت، برنامه های آموزشی، مشوره، حل مشکلات، بازار یابی و غیره)

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

The government has an effective participatory mechanism to listen to businesses problems and address them, protects investment and trading

- دولت یک میکانیزم موثر مشارکتی داشته که مشکلات تجارتی را شنیده و برای ایشان رسیده نموده و از سرمایه گذاری و تجارت محافظت مینمایند

کاملاً موافقم	موافقم	بی طرف و یا خنثی	مخالف هستم	کاملاً مخالف هستم	نمیدانم
☐	☐	☐	☐	☐	☐

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Factors Affecting Success and Failures of Entreprenruship in Afghanistan
Questionnaires for Empirical Research

Firm's Name:	Address:	Segment:
Industry:	No. of Staff	Total Capital if possible:

Rate your Success:: 1   2   3   4   5   or 0   1 (1 is the best, 5 is the worst)

Key Open Ended Questions:

1. What are the key specific factors which have contributed to the success of entrepreneurship in your case? And, why are they considered key specific factors and how they contributed with specific stories? (only if he/she is a successful entrepreneur)

عوامل عمده و خاصیکه باعث کامیابی تجارت و یا کاروبار شما شده است چیست؟ چرا اینها عوامل مهم شناخته میشوند؟ چطور این عوامل جهت کامیابی کاروبار شما کمک نموده؟ لطف نموده با مثال واضح سازید.

2. What are key detrimental factors to the entrepreneurship failures in your case? Why are they considered detrimental factors? How they made the business fail with specific stories, please? (only if he/she is a failed entrepreneur or knows someone)

عوامل عمده که باعث ورشکست تجارت و یا کارو بار تان شده است چیست؟ چرا این عوامل ورشکست دهنده ملاحظه میشوند؟ چطور تجارت شما این عوامل به شکست مواجه ساخت؟ لطف نموده با مثال واضح سازید.

3. What would you do differently to prevent failures, taking into accounts the above factors of failure? (Question only for failed ones)

چی کاری متفاوت انجام میدهید تا از ورشکست تجارت تان جلوگیری کند، البته با در نظر گرفتن عوامل ورشکست کننده که در بالا ذکر شده بالا؟

4. What would you do differently to take advantages of opportunities to benefit your business for further success? (question for a successful entrepreneur)

چی کار متفاوت انجام میدهید تا از فرصت ها استفاده کرده و برای موفقیت هرچه بیشتر تجارت و یا کارو بار تان منجر شود؟

5. If/how has your business ever been assisted to grow or prevent failures from external sources in particular government? The assistance can include but not limited to training, tax subsidy, business recovery assistance, access to new market, etc.

آیا/چطور تجارت تان بخاطر رشد و یا جلوگیری از شکست از طرف منابع بیرونی بخصوص دولت کمک شده است؟

6. What are your specific key challenges in the following issues? And how and why these are considered challenges based on your experience?

مشکلات عمده تان در موارد ذیل چیست؟ و چطور و چرا اینها به اساس تجربه شما مشکلات شمرده میشوند؟

   o Access to finance (accessibility, availability, high spreads, subsidized rates, banking system, local context/Islamic banking, etc.)

   دسترسی به مسایل مالی \ پولی (دسترسی، موجودیت/بلند بودن نرخ سود، نرخ سیسابدی شده سود، سیستم بانکی، بانک داری اسلامی و غیره)

   o Market conditions and business environment (local procurements, ability of local market to address demands, investment barriers, access to global market)

   شرایط مارکت و محیط تجارت (خریداری داخلی، ظرفیت مارکت داخلی جهت مرفوع نمودن تقاضای های، مشکلات سرمایه گذاری، دسترسی به مارکت های جهانی)

   o Infrastructure (border infrastructure, custom administration, electronic system, transport, shipment, energy, internet, etc).

   زیربنا ها (زیر بنایی سرحدات، ادارات گمرکی، سیستم الکترونیکی، تراسپورت، انتقالات، انرژی، انترنت و غیره)

   o Access to skills (specialized labor, entrepreneurial skills, risk and return, etc.)

   دسترسی به مهارت ها (مهارت خاص، مهارت تجارتی، خطر، و مفاد و غیره)

   o Access to innovation assets (modern technology, Big Data Analysis for organizing business issues, and business to increase productivity, and profits, e.g. supply chain management, e-sells, e-payment, etc.)

   دسترسی به مسایل نو آوری (تکنالوژی نوین، معلومات کلان بخاطر تنظیم موضوعات تجارتی و افزایش تولیدات، و مفاد به طور مثال زنجیره تهیه نمودن، فروشان از طریق انترنت، پرداخت از طریق انترنت و غیره)

   o Institutional and regulatory framework (property registration, regulatory procedures, land acquisition, public governance, protection of investment/trading)

   چهار چوب سازمانی و قانونی (ثبت جایدادات، طرز العمل قانونی، زمین بدست آوردن، حکومتداری عامه، محافظت از سرمایه گذاری و تجارت، مالیات و غیره)

7. What are your key recommendations to overcome the challenges? This includes who should do what, with key specific issues to look at. For example, laws to amend, new policies, and why?

سفارشات کلیدی شما جهت نایل شدن به چنین مشکلات چیست؟ یعنی کی باید چه کاری انجام بدهد و چه مشکلات را رسیدگی کند. بطور مثال کدام قوانین و یا پالیسی ها تعدیل شود، پالیسی ها جدید، و چرا چنین شود؟

Appendix 2: Letter of Assistance from Herat and Balkh Governor Offices

Letter of Assistance from Herat Governor Office August 2019

<div dir="rtl">

د افغانستان اسلامی جمهوری دولت

د سیمه ییزو ارگانونو خپلواکه اداره

د بلـــــخ ولایـــــت

دولت جمهوری اسلامی افغانستان

اداره مستقل ارگانهای محلی

ولایـت بلـــخ

Islamic Republic Government of Afghanistan
Independent Directorate of Local Governance
Balkh Province

ریاست خدمات تخنیکی وسکتوری

کارشناس اقتصادی

تاریخ: ۲۶/ ۴ /1398

شماره ع- ۳۵۴ / ۹۳

X **به ریاست محترم اتاق تجارت ولایت بلخ!**

محترم بکتاش جامی محصل دوره کار شناسی ارشد دانشگاه مودل در کشور آستریا (اتریش) میباشد، موصوف، موصوف در ادامه کارهای تحقیقی و عملی خویش در نظر دارد تا یک تحقیق همه جانبه را در مورد عوامل که باعث موفقیت و یا ور شکست شدن شرکت های تجارتی افغانستان میشود انجام داده و آنرا درین دانشگاه معتبر جهانی ارایه نماید ، موصوف جهت تکمیل تحقیق خویش خواهان همکاری اداره محلی گردیده است. بدینوسیله هدایت داده میشود که با ایشان درقسمت تکمیل تحقیق فوق الذکر همکاری همه جانبه نماید.**بااحترام**

شجاع الدین شجاع

معاون مقام ولایت بلخ

کاپی :

X به ریاست محترم اتحادیه صنعت گران ولایت بلخ .

X به ریاست محترم اتحادیه شورای عالی سرمایه گذاری .

X به ریاست محترم گمرک ولایت بلخ .

✓ به ریاست محترم صنعت و تجارت ولایت بلخ .

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Letter of Assistance from Balkh Governor Office, July 2019

Appendix 3: List of Figures

6.1.1 Figure 1: Net Official Development Assistance of Afghanistan and its Neighbour

Source: World Bank, 2020l analysed by the author
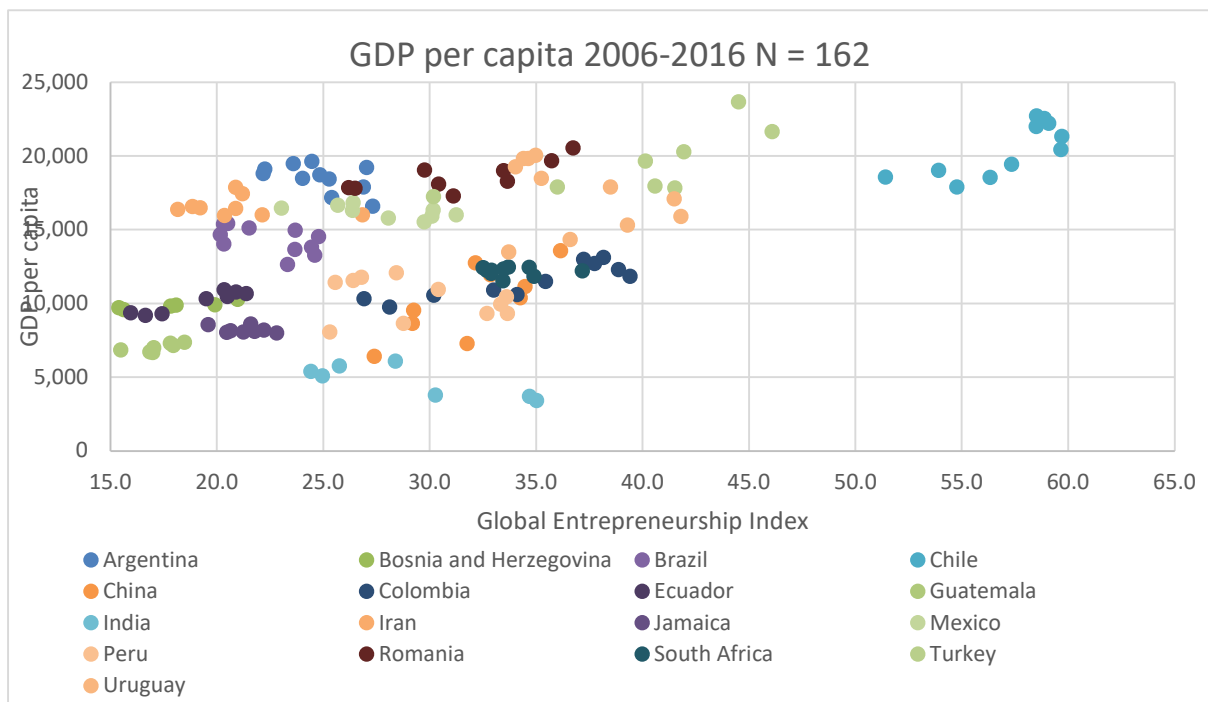
6.1.2 Figure 2.4: Entrepreneurship vs. GDP per capita in Middle&Low Income Countries

Source: World Bank 2016a, GEDI, 2016-2016, analysed by the author
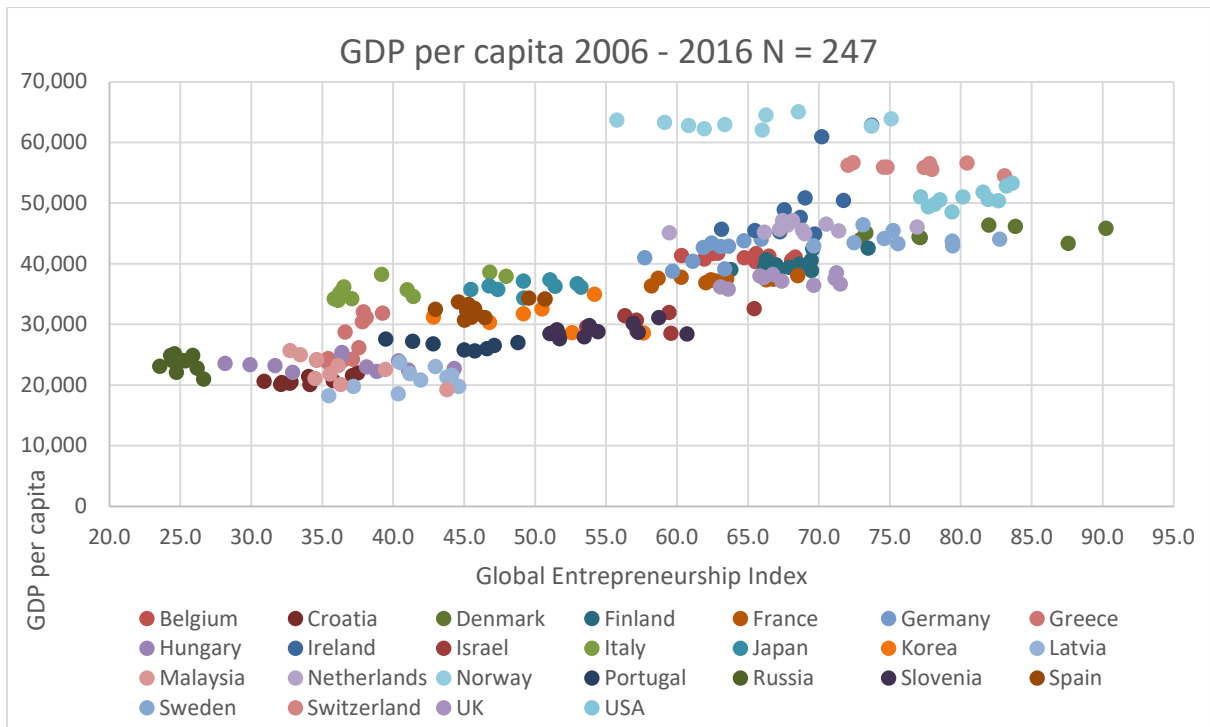
6.1.3 Figure 2.5: Entrepreneurship vs. With GDP per capita in Advanced Economies

Source: World Bank 2016a, GEDI, 2016-2016 analysed by the author
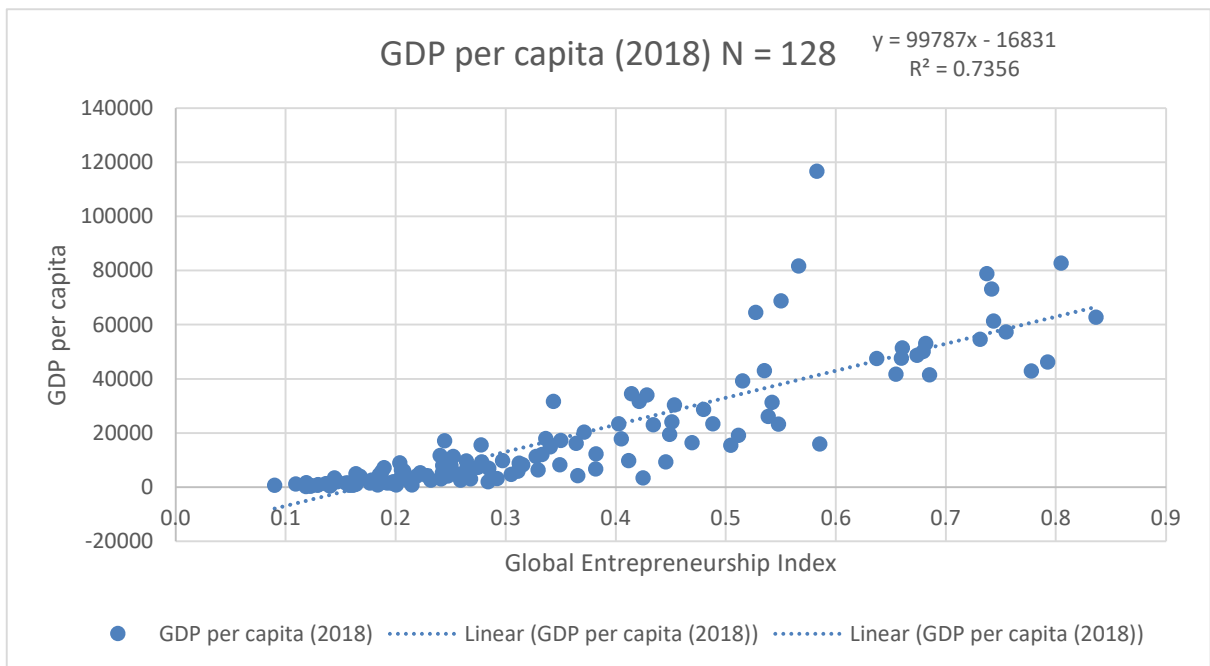
6.1.4 Figure 2.6: The Relationship of Entrepreneurship with GDP.p. capita in 128 countries

Source: World Bank, 2018a, and GEDI 2018 analysed by the author
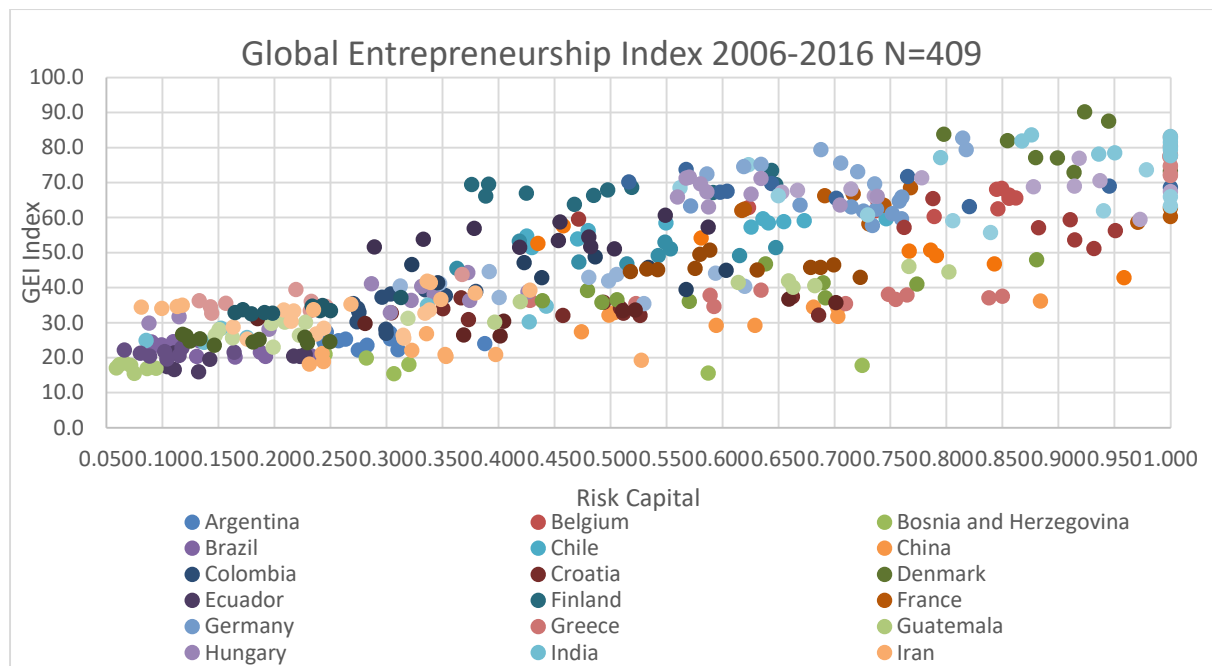
6.1.5   Figure 2.7: Relationship of Risk Capital and Entrepreneurship Index in 42 Countries

Source: GEDI, 2016-2016 analysed by the author

Regression Statistics	
Multiple R	0.995227
R Square	0.990477
Adjusted R Square	0.990138
Standard Error	1.872655
Observations	409

	Coefficients	t Stat	P-value
Intercept	-1.38666	-4.54588	0.00001
1. Opportunity Perception	7.767351	10.07315	0.00000
2. Startup Skills	7.246206	14.41107	0.00000
3. Risk Acceptance	6.11055	11.05191	0.00000
4. Networking	6.500038	10.40977	0.00000
5. Cultural Support	5.657823	6.312588	0.00000
6. Opportunity Startup	6.637212	8.000016	0.00000
7. Technology Absorption	8.54989	15.84865	0.00000
8.Human Capital	6.894967	11.32843	0.00000
9. Competition	8.821739	13.66966	0.00000
10. Product Innovation	4.628121	8.851983	0.00000
11. Process Innovation	4.523225	6.763243	0.00000
12. High Growth	5.058794	7.968095	0.00000
13. Internationalization	7.859133	14.89891	0.00000
14. Risk Capital	7.03953	12.3958	0.00000

6.1.6   Figure 2.8: Relationship of GEI and GDP per capital 2006-2016 from 42 Countries

Source: World Bank 2016a, GEDI, 2016-2016, analysed by the author

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.930446
R Square	0.865729
Adjusted R Square	0.856703
Standard Error	8438.614
Observations	128

	df	SS	MS	F	Sign. F
Regression	8	5.46E+10	6.83E+09	95.90869	3.3E-48
Residual	119	8.47E+09	71210201		
Total	127	6.31E+10			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-13063.9	1975.382	-6.61337	1.12E-09	-16975.4	-9152.47	-16975.4	-9152.47
GEI	-90504.8	20513.49	-4.41196	2.26E-05	-131124	-49886	-131124	-49886
3. Risk Acceptance	11389.67	5323.765	2.139401	0.034446	848.0797	21931.25	848.0797	21931.25
4. Networking	19020.99	4888.097	3.891288	0.000165	9342.073	28699.91	9342.073	28699.91
6. Opportunity Startup	40389.23	7010.231	5.76147	6.67E-08	26508.28	54270.19	26508.28	54270.19
7. Technology Absorption	26333.65	6225.229	4.23015	4.61E-05	14007.08	38660.23	14007.08	38660.23
9. Competition	41412.26	6445.385	6.425102	2.83E-09	28649.75	54174.76	28649.75	54174.76
13. Internationalization	9315.822	4466.575	2.085675	0.039145	471.5577	18160.09	471.5577	18160.09
14. Risk Capital	19582.38	5040.089	3.885324	0.000169	9602.499	29562.26	9602.499	29562.26

6.1.7   Figure 2.10: Relationship of GDP per capita and Entrepreneurship in 128 Countries

Source: World Bank, 2018a, and GEDI 2018 analysed by the author

1. Regulatory Framework

- Administrative Burden
- Bankrupcy Regulations
- Product & Labour Market Regulations
- Court and Legal Framework
- Social and Health Security
- Income Tax
- Businss and Capital Taxes
- Patent System; Standards

4. Creation and Diffusion of Knowledge

- R&D Activity
- Transfer of None Commercial Knowledge
- Cooperation among firms
- Technology Availability and take up
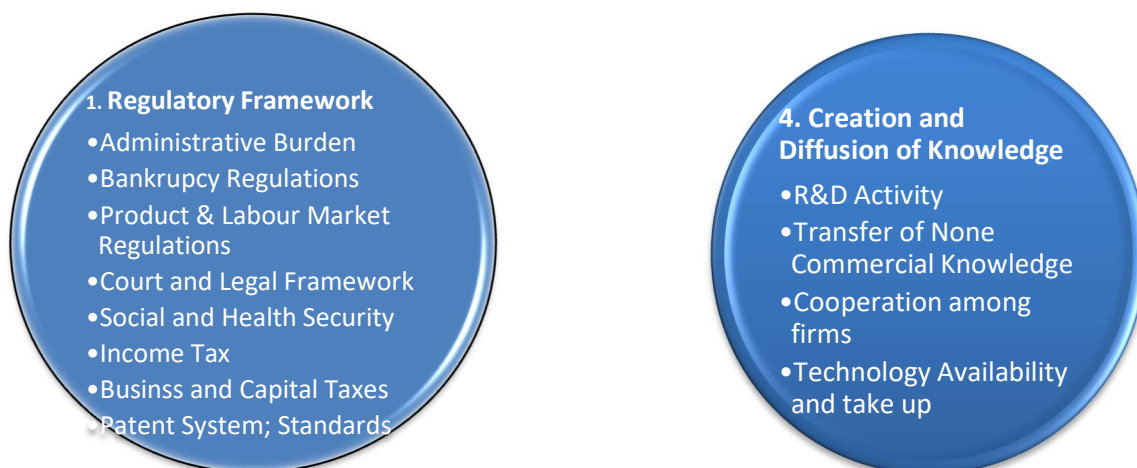
6.1.8   Figure 2.13: Regulatory Framework   Source: OECD, 2019b

6.1.9   Figure 2.16 Creation and Diffussion of Knowledge

Source: OECD, 2019e

6. Entrepreneurship Culture

- Culture
- Entrepreneurial education (mindset)

2. Access to Finance/Capital

- Access to Debt Financing
- Access to Venture Capital
- Stock Markets
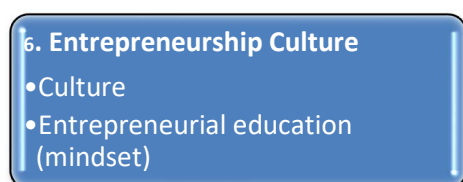
6.1.10   Figure 2.18: Entrepreneurship Culture   Source: OECD, 2019g

6.1.11 Figure 2.14: Access to Finance   Source: OECD, 2019c
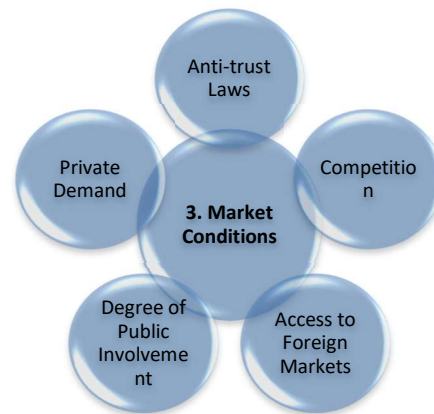
6.1.12 Figure 2.17: Entrepreneurial Capabilities   Source: OECD. 2019f

6.1.13 Figure 2.15: Market Conditions   Source: OECD, 2019d

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.994274
R Square	0.98858
Adjusted R Square	0.98727
Standard Error	0.021431
Observations	137

ANOVA

	df	SS	MS	F	Significance F
Regression	14	4.850842	0.346489	754.3822	3.1E-111
Residual	122	0.056035	0.000459		
Total	136	4.906877			

	Co effi-cients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.00	0.01	0.54	0.59	-0.01	0.01	-0.01	0.01
1. Opportunity Perception	0.10	0.02	5.72	0.00	0.06	0.13	0.06	0.13
2. Startup Skills	0.07	0.01	8.83	0.00	0.06	0.09	0.06	0.09
3. Risk Acceptance	0.07	0.01	5.51	0.00	0.04	0.10	0.04	0.10
4. Networking	0.04	0.01	3.14	0.00	0.01	0.06	0.01	0.06
5. Cultural Support	0.07	0.02	4.21	0.00	0.04	0.11	0.04	0.11
6. Opportunity Startup	0.04	0.02	1.82	0.07	0.00	0.08	0.00	0.08
7. Technology Absorption	0.11	0.01	7.87	0.00	0.08	0.14	0.08	0.14
8.Human Capital	0.07	0.01	5.27	0.00	0.04	0.09	0.04	0.09
9. Competition	0.06	0.02	3.71	0.00	0.03	0.10	0.03	0.10
10. Product Innovation	0.05	0.01	5.96	0.00	0.04	0.07	0.04	0.07
11. Process Innovation	0.06	0.01	4.38	0.00	0.03	0.08	0.03	0.08
12. High Growth	0.04	0.01	3.00	0.00	0.01	0.07	0.01	0.07
13. Internationalization	0.05	0.01	4.15	0.00	0.02	0.07	0.02	0.07
14. Risk Capital	0.06	0.01	5.08	0.00	0.04	0.09	0.04	0.09

6.1.14 Figure 2.11: Relationship GEI and 14 Variables in 137 Countries in 2018

Source: World Bank, 2018a, and GEDI 2018 analysed by the author
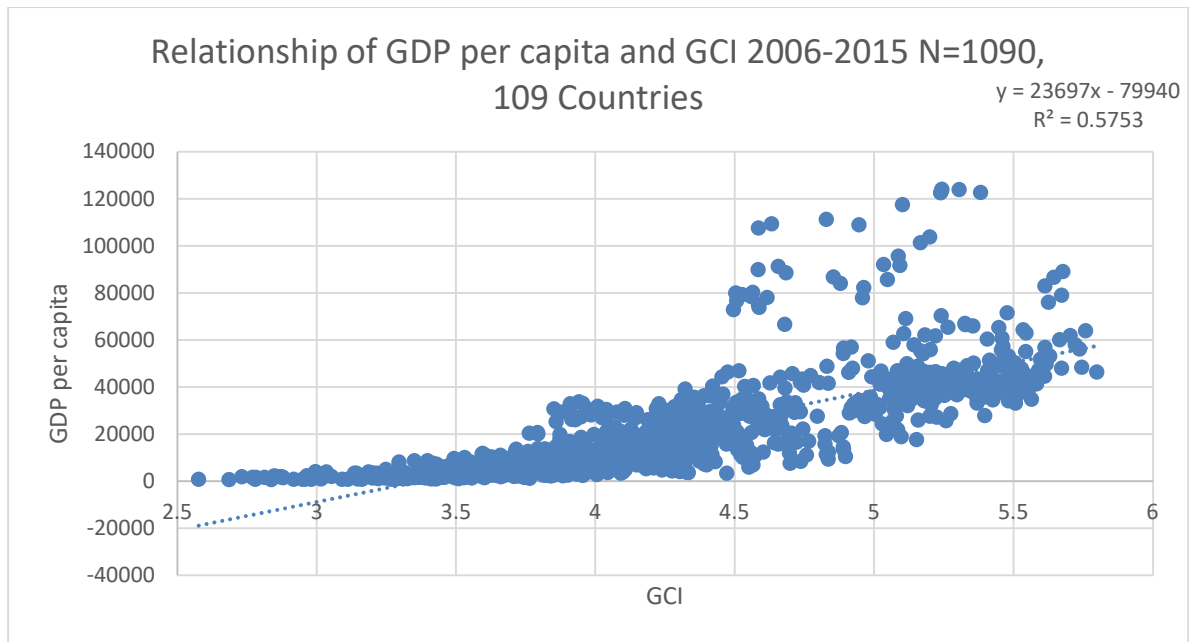
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.758466
R Square	0.575271
Adjusted R Square	0.574881
Standard Error	13643.43
Observations	1090

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	2.74E+11	2.74E+11	1473.633	1.6E-204
Residual	1088	2.03E+11	1.86E+08		
Total	1089	4.77E+11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-79939.6	2677.779	-29.853	1.6E-143	-85193.8	-74685.4	-85193.8	-74685.4
Global Competitiveness Index	23696.62	617.2934	38.38793	0.00000	22485.4	24907.84	22485.4	24907.84

6.1.15 Figure 2.20a: Relationship of GDP per capita and GCI 2006.2015 in 109 Countries

Source of Data: World Bank 2016a and World Economic Forum, 2016a analysed by the author
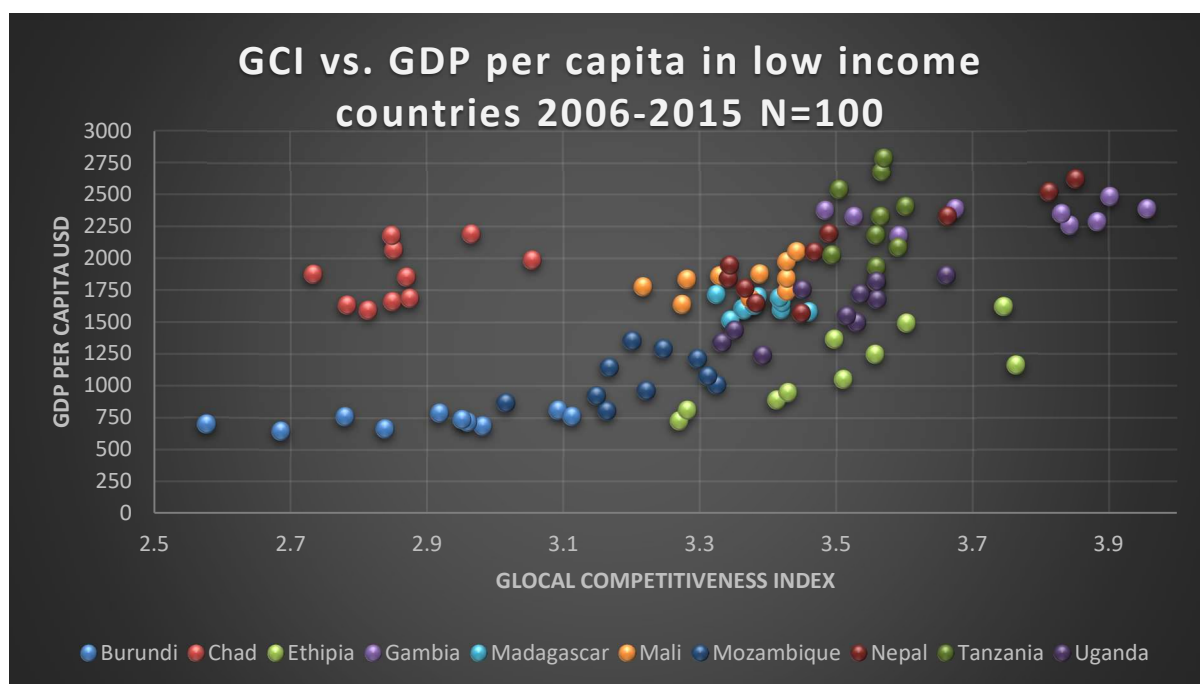
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.555161
R Square	0.308204
Adjusted R Square	0.301145
Standard Error	458.9532
Observations	100

ANOVA

	df	SS	MS	F	Significance F
Regression	1	9196504	9196504	43.66022	2.04E-09
Residual	98	20642532	210638.1		
Total	99	29839037			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-1797.11	523.7059	-3.43153	0.00088	-2836.39	-757.835	-2836.39	-757.835
Global Competitiveness Index	1029.29	155.774	6.607588	0.00000	720.1618	1338.419	720.1618	1338.419

6.1.16 Figure 2.21:Competitiveness vs. GDP.per.capita in 10 low income countries

Source of Data: World Bank 2016a and World Economic Forum, 2016a analysed by the author
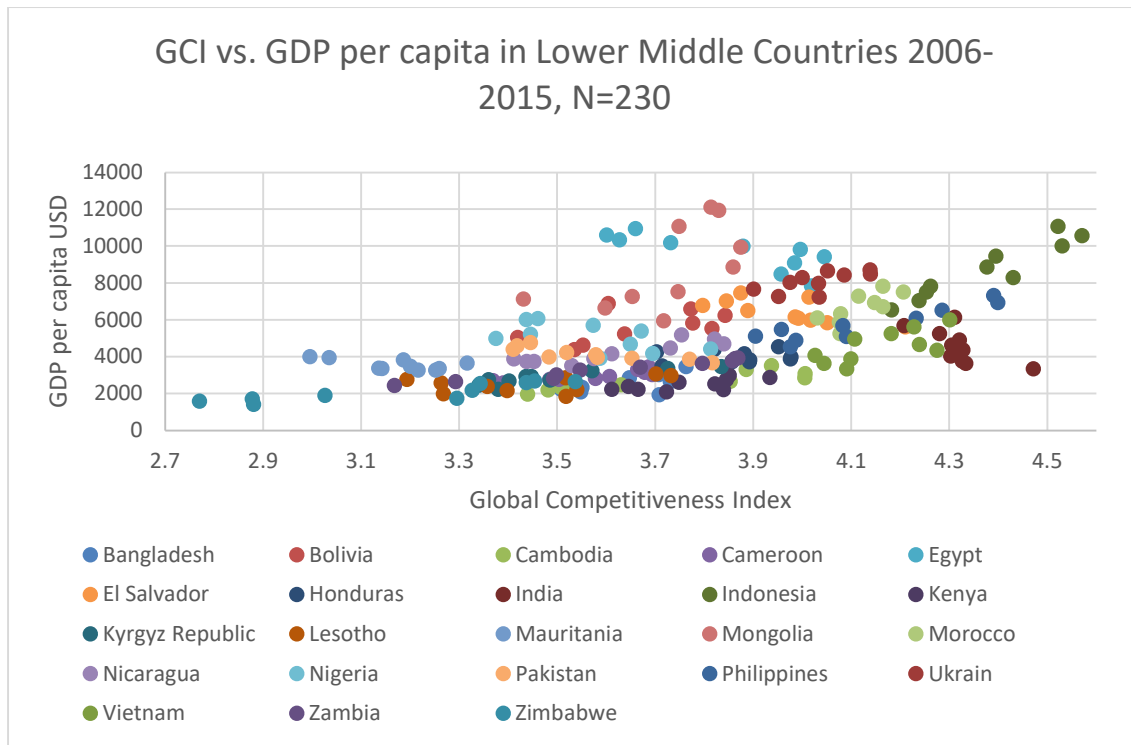
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.532596
R Square	0.283659
Adjusted R Square	0.280517
Standard Error	2000.51
Observations	230

ANOVA

	df	SS	MS	F	Significance F
Regression	1	3.61E+08	3.61E+08	90.284111	2.99E-18
Residual	228	9.12E+08	4002039		
Total	229	1.27E+09			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-8820.82	1442.965	-6.11299	4.198E-09	-11664.1	-5977.57	-11664.1	-5977.57
Global Competitiveness Index	3627.416	381.7611	9.501795	0.000000	2875.185	4379.647	2875.185	4379.647

6.1.17 Figure 2.22: Competitiveness vs GDP per capita in 23 lower middle income countries

Source of Data: World Bank 2016a and World Economic Forum, 2016a analysed by the author

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.525864
R Square	0.276533
Adjusted R Square	0.274105
Standard Error	4176.629
Observations	300

ANOVA

	df	SS	MS	F	Significance F
Regression	1	1.99E+09	1.99E+09	113.9053	9.85E-23
Residual	298	5.2E+09	17444230		
Total	299	7.19E+09			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-18346.2	2940.4	-6.2	0.0000	-24132.9	-12559.6	-24132.9	-12559.6
Global Competitiveness Index	7561.6	708.5	10.7	0.0000	6167.3	8955.9	6167.3	8955.9
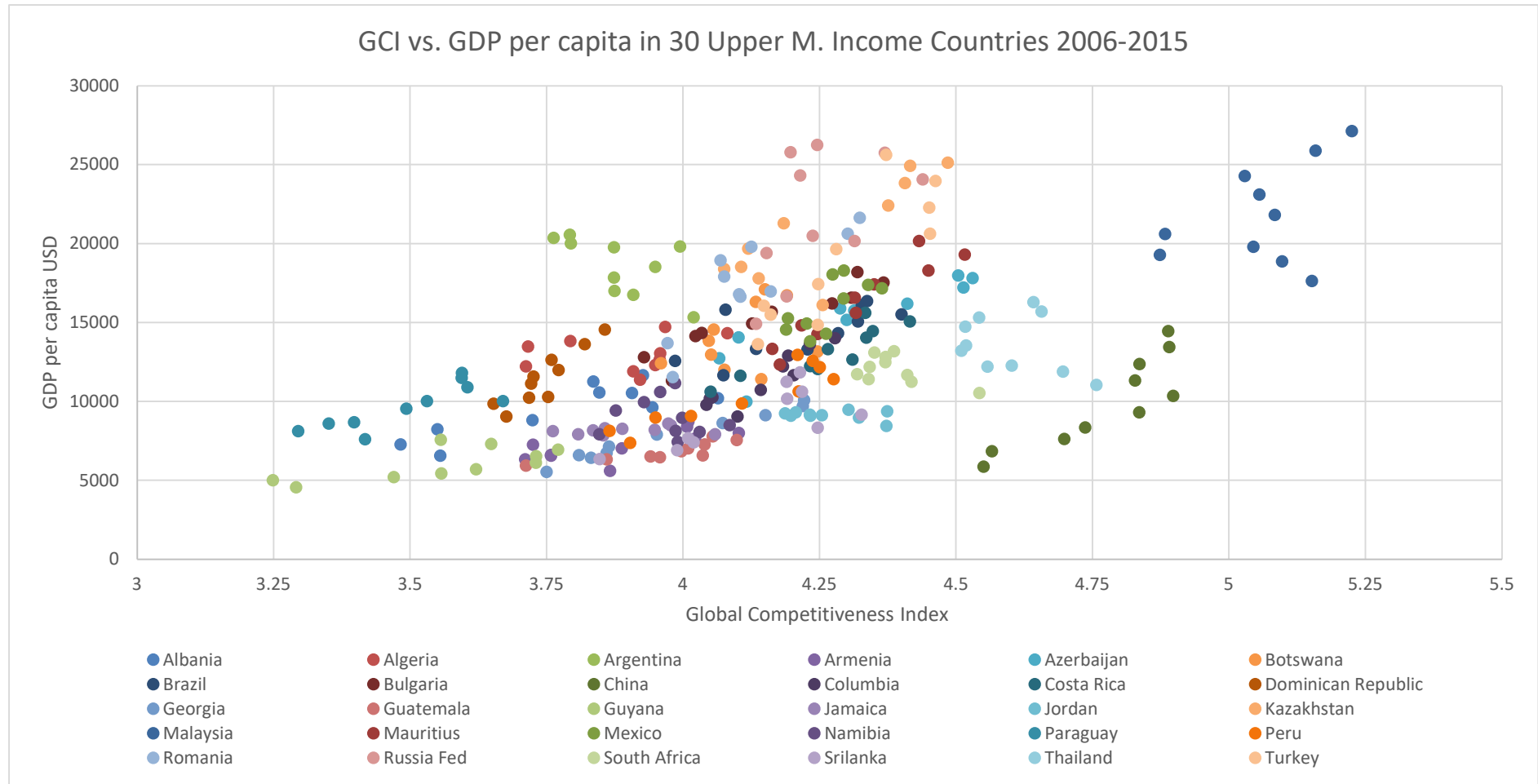
6.1.18 Figure 2.23: Relationship of Competitiveness with GDP per capita in 30 Upper Middle Income Countries.

Source of Data: World Bank 2016a and World Economic Forum, 2016a analysed by the author

GCI vs. GDP per capita in 46 high income countries 2006-2016

Legend:

- Australia
- Austria
- Bahrain
- Belgium
- Canada
- Chile
- Croatia
- Cyprus
- Czech Rep
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hong Kong
- Hungary
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea Rep
- Kuwait
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- New Zealand
- Norway
- Panama
- Poland
- Portugal
- Qatar
- Singapore
- Slovak
- Slovenia
- Spain
- Sweden
- Switzerland
- Trinidad and Tobago
- UAE
- U.K
- USA
- Uruguay
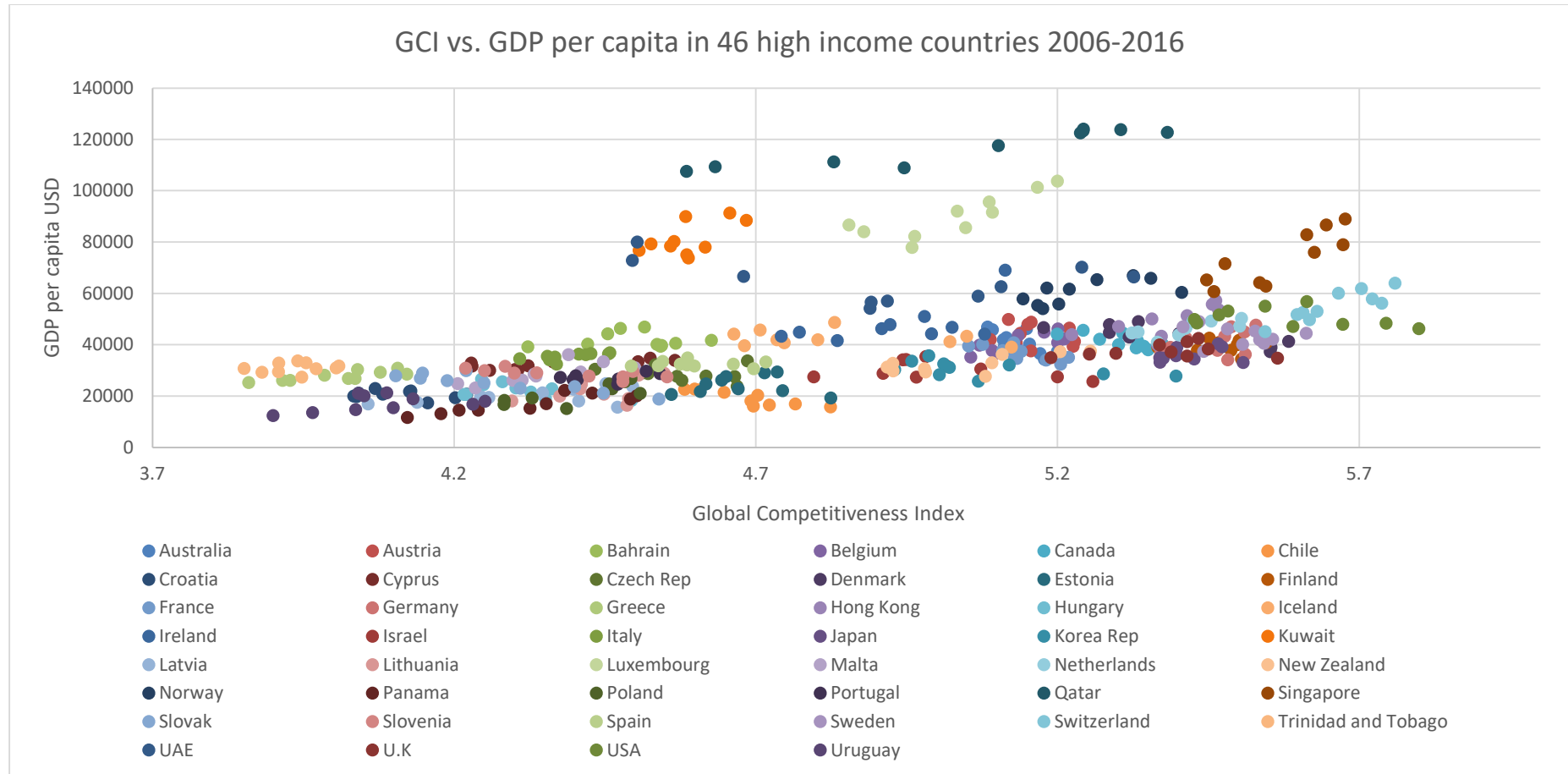
Regression Statistics	
Multiple R	0.469372
R Square	0.22031
Adjusted R Square	0.218608
Standard Error	17750.25
Observations	460

ANOVA

	df	SS	MS	F	Significance F
Regression	1	4.08E+10	4.08E+10	129.413	1.4E-26
Residual	458	1.44E+11	3.15E+08		
Total	459	1.85E+11			

	Coeffi-cients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Inter-cept	-51288	8069.832	-6.35552	5.02E-10	-67146.4	-35429.5	-67146.4	-35429.5
GCI	18834.97	1655.679	11.37598	0.00000	15581.3	22088.6	15581.3	22088.6

6.1.19 Figure 2.24: Competitiveness ~ GDP per capita in 46 High Income Countries

Source of Data: World Bank 2016a and World Economic Forum, 2016a analysed by the author
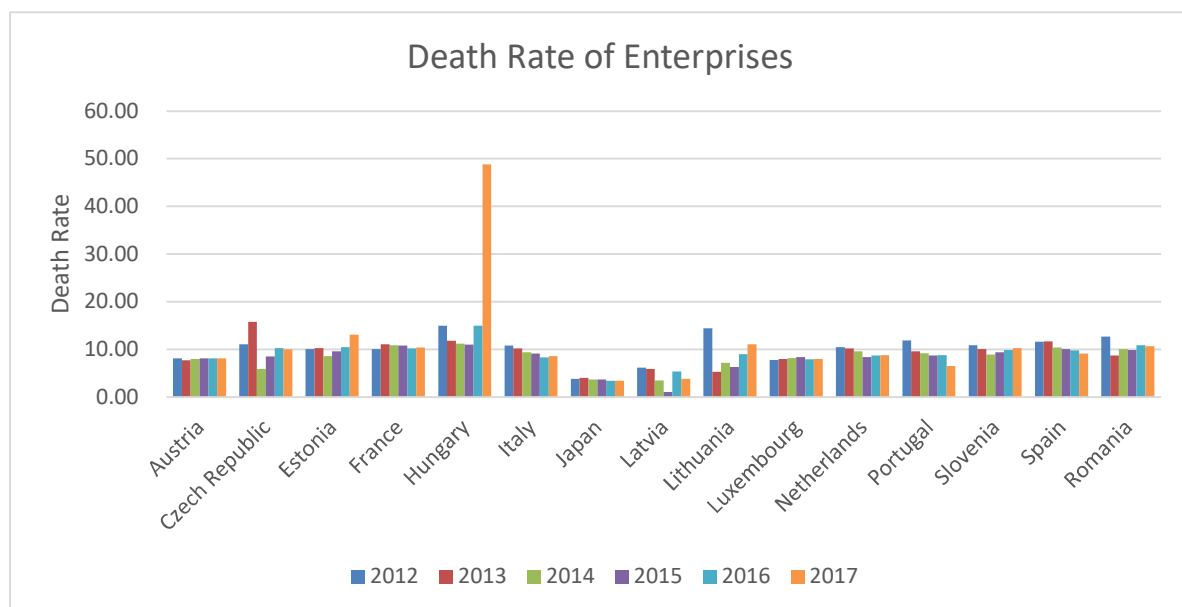
6.1.20 Figure 2.25a: Death Rate of Enterprises in 15Markets

Source: OECD, 2020a analysed by the author
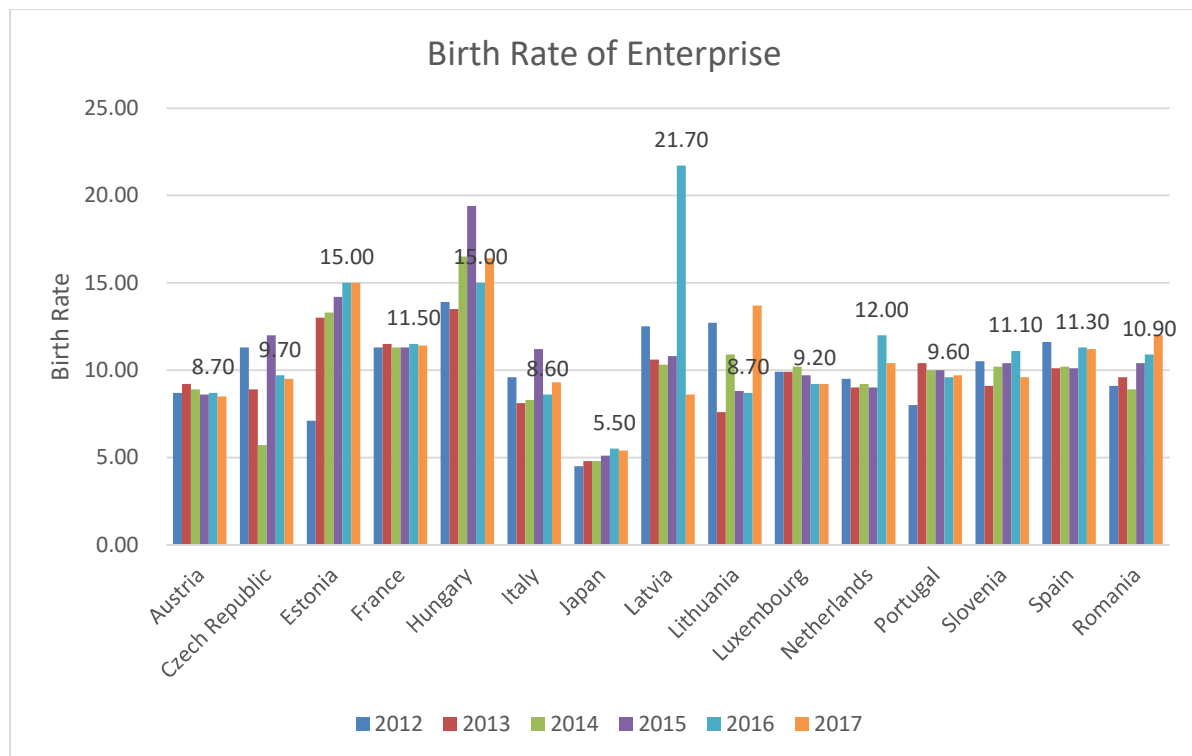
6.1.21 Figure 2.25b: Birth Rate of Enterprises in 15 Markets

Source: OECD, 2020a analysed by the author
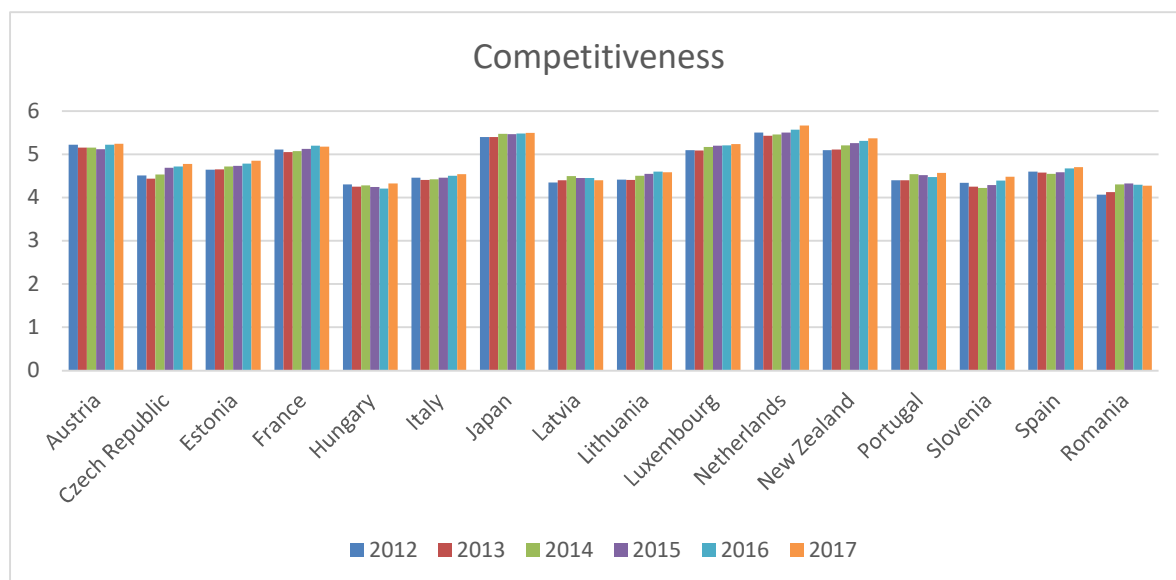
6.1.22 Figure 2.25c: Competitiveness Score in 15 Markets

Source: World Economic Forum, 2018 analysed by the author
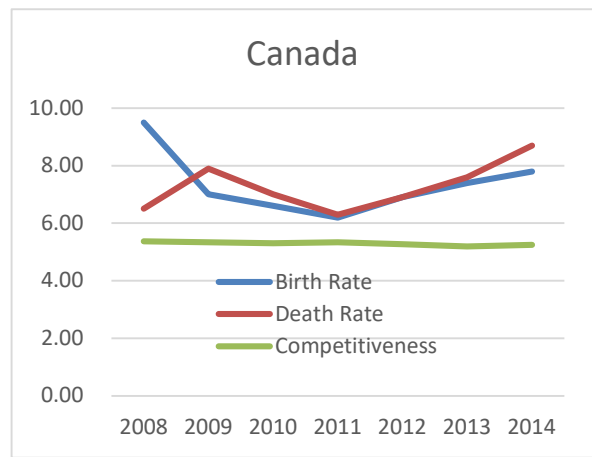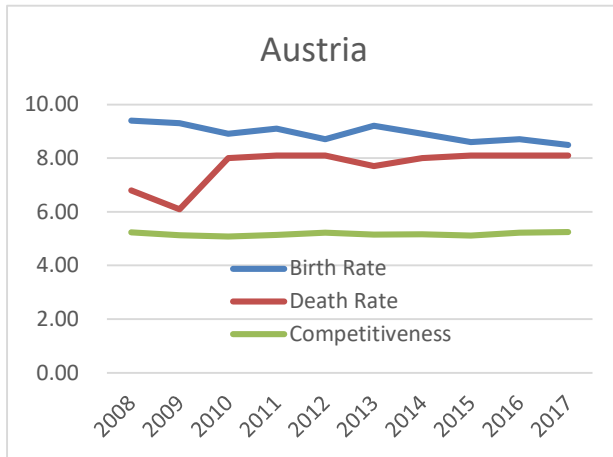
6.1.23 Figure 2.25d: Birth, Death Rate of Enterprises, and Competitiveness in Austria

6.1.24 Figure 2.25e: Birth Death Rate of Enterprises, and Competitiveness in Canada

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
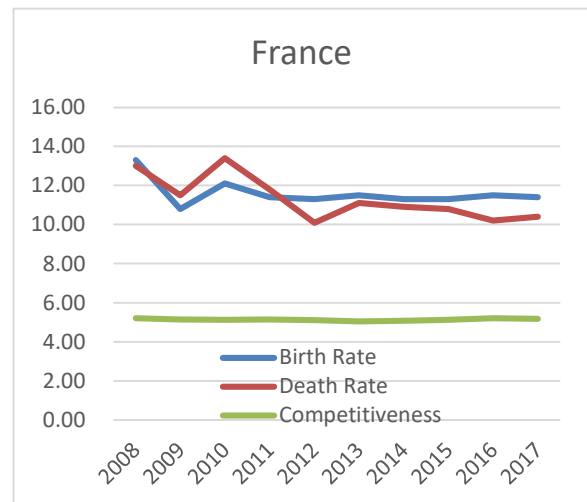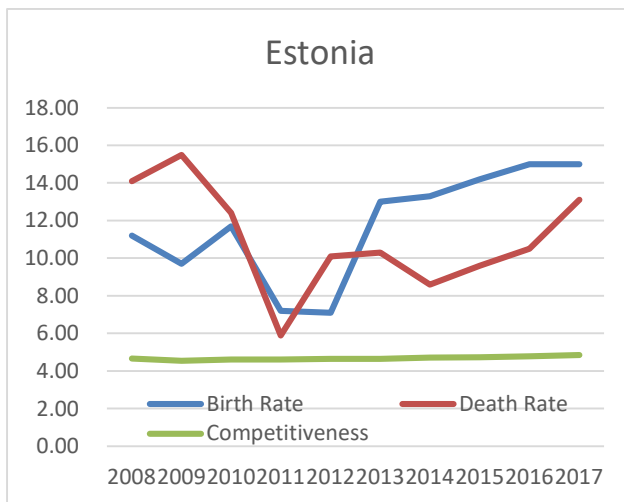
6.1.25 Figure 2.25f: Birth, Death Rate of Enterprises, and Competitiveness in Estonia

6.1.26 Figure 2.25g: Birth, Death Rate of Enterprises, and Competitiveness in France

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
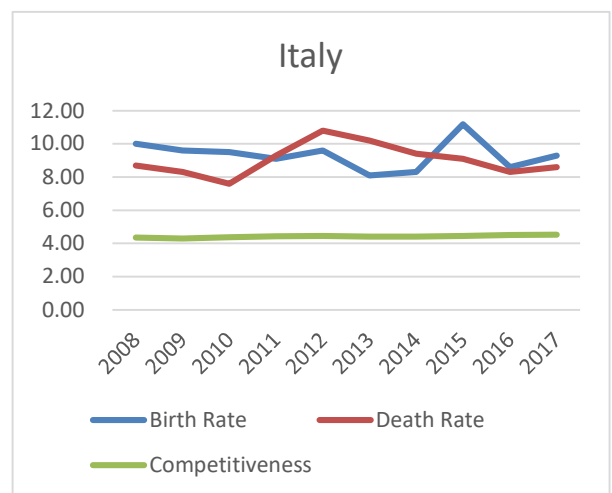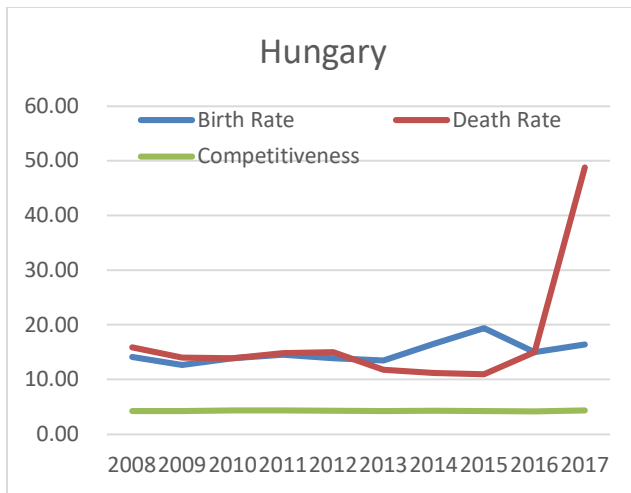
6.1.27 Figure 2.25h: Birth, Death Rate of Enterprises, and Competitiveness in Hungary

6.1.28 Figure 2.25i: Birth, Death Rate of Enterprises, and Competitiveness in Italy

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
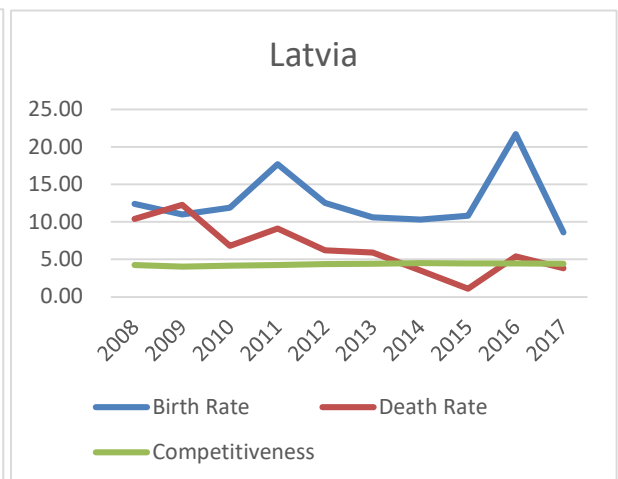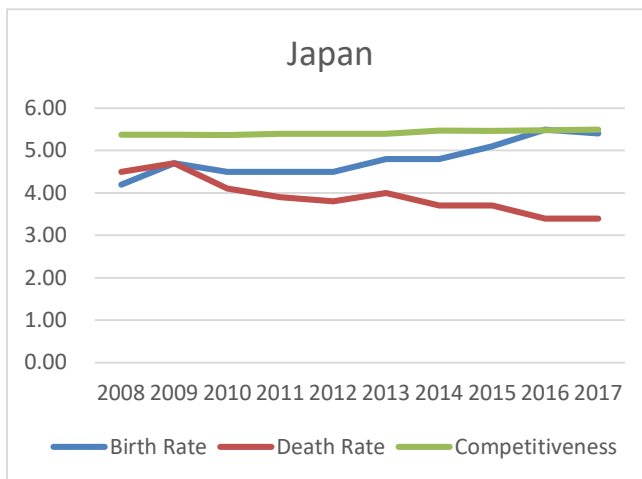
6.1.29 Figure 2.25j: Birth and Death Rate of Enterprises, and Competitiveness in Japan

6.1.30 Figure 2.25k: Birth and Death Rate of Enterprises, and Competitiveness in Latvia

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
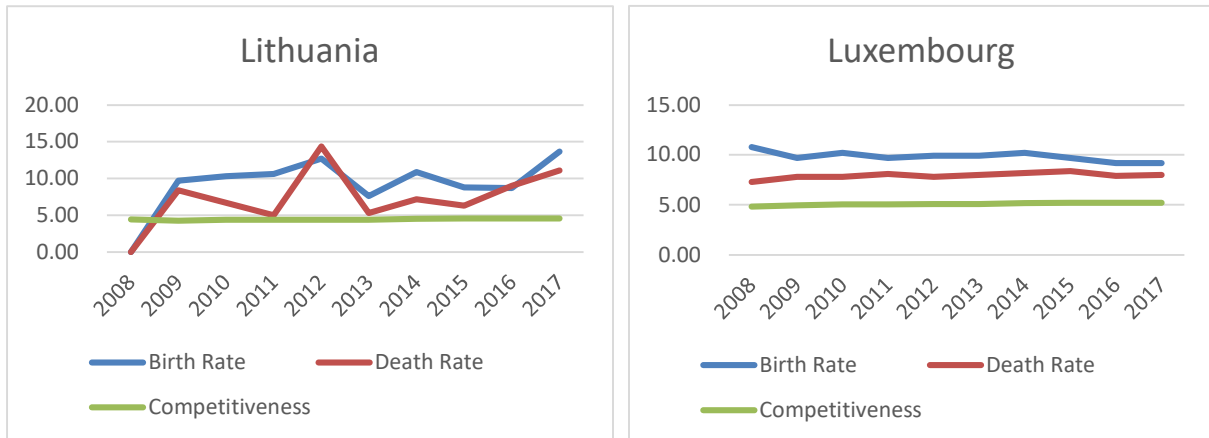
6.1.31 Figure 2.25l: Birth and Death Rate of Enterprises, and Competitiveness in Lithuania

6.1.32 Figure 2.25m: Birth Death Rate of Enterprises, and Competitiveness in Luxembourg

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
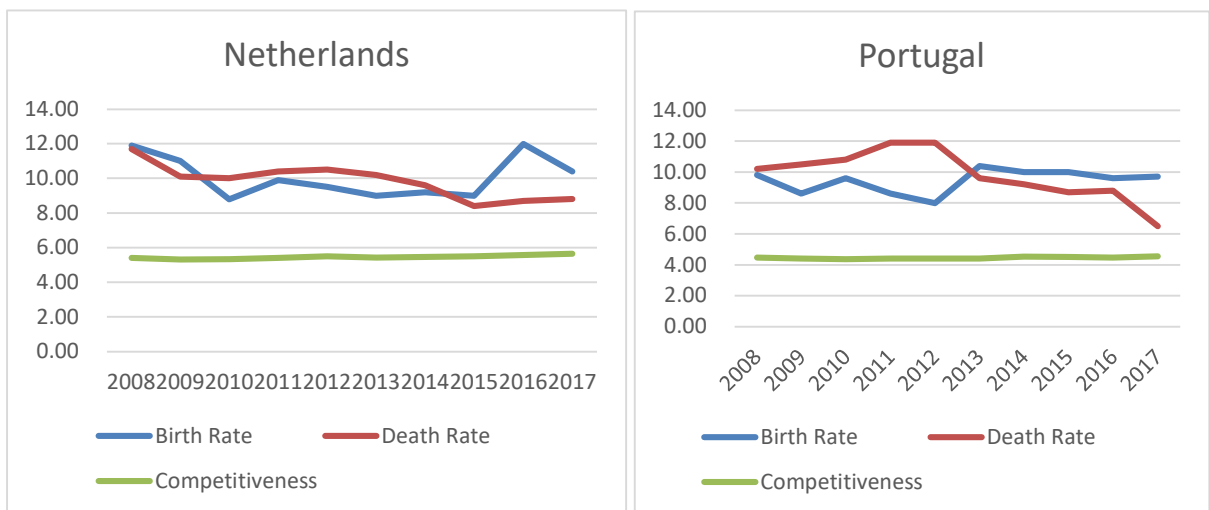
6.1.33 Figure 2.25n: Birth, Death Rate of Enterprises, and Competitiveness in Netherlands

6.1.34 Figure 2.25o: Birth and Death Rate of Enterprises, and Competitiveness in Portugal

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
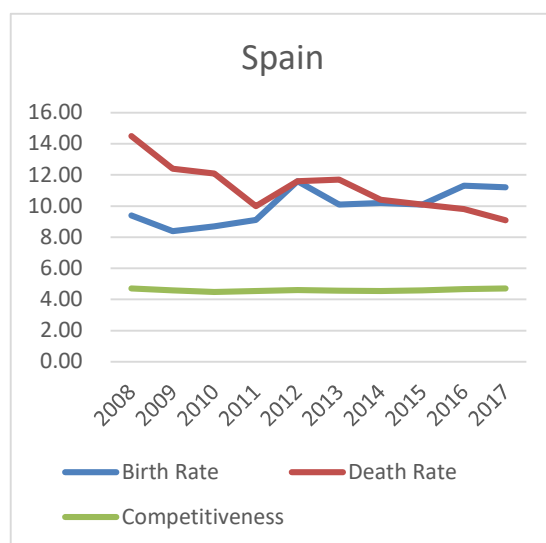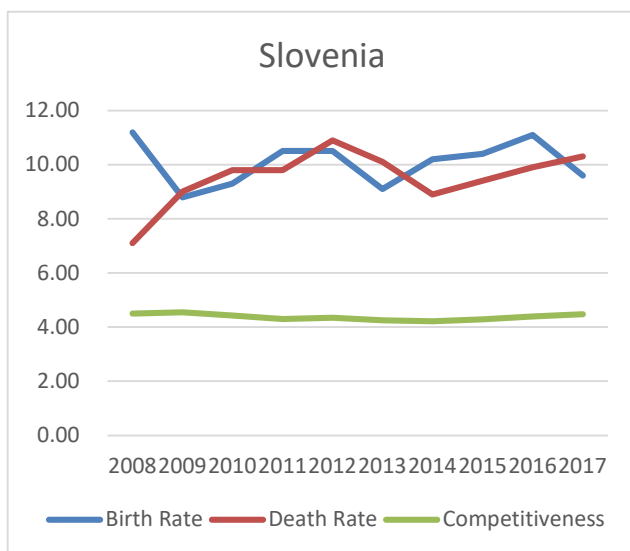
6.1.35 Figure 2.25p: Birth and Death Rate of Enterprises, and Competitiveness in Slovenia

6.1.36 Figure 2.25q: Birth and Death Rate of Enterprises, and Competitiveness in Spain

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
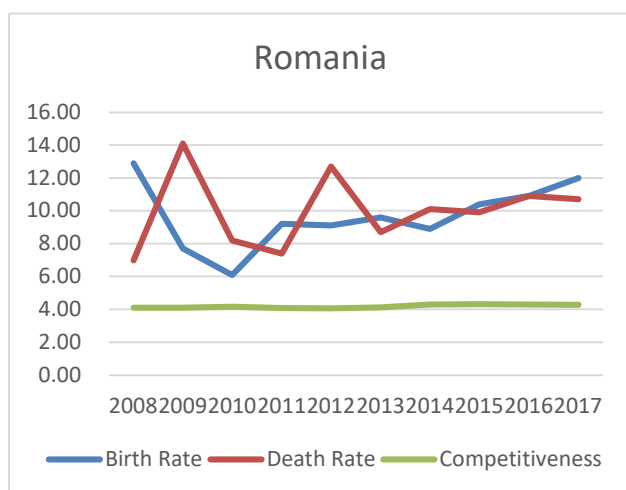
6.1.37 Figure 2.25r: Birth and Death Rate of Enterprises, and Competitiveness in Romania

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
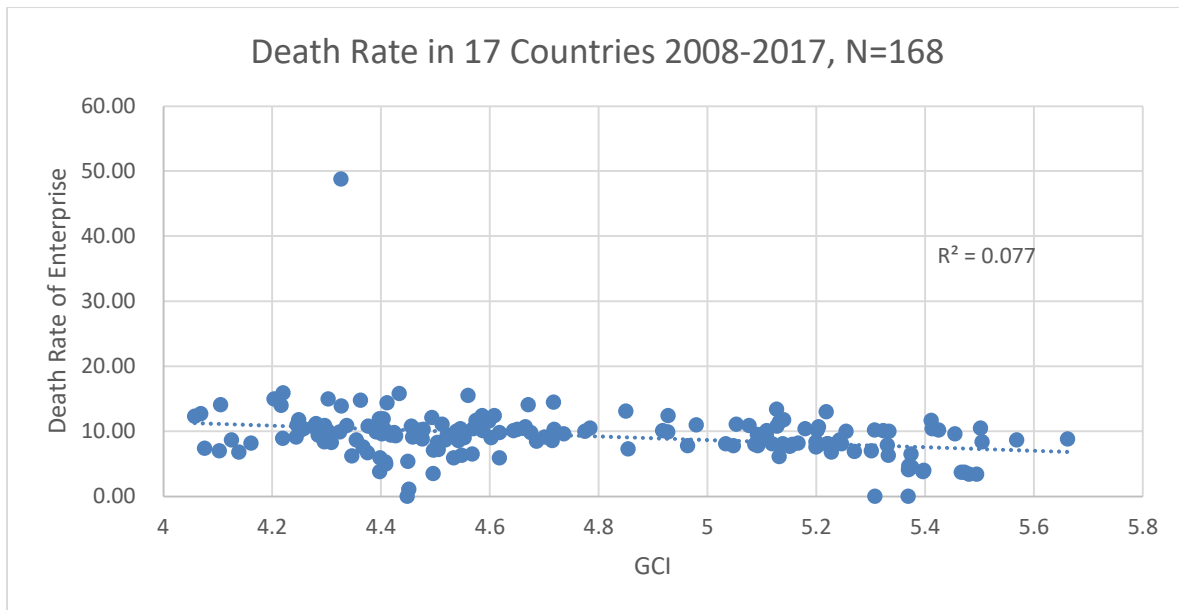
Regression Statistics	
Multiple R	0.277528
R Square	0.077022
Adjusted R Square	0.071462
Standard Error	4.121558
Observations	168

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	235.3175	235.3175	13.85261	0.00027
Residual	166	2819.882	16.98724		
Total	167	3055.199			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	22.45902	3.541543	6.34159	2.07E-09	15.46674	29.45129	15.46674	29.45129
Competitiveness	-2.75688	0.740717	-3.72191	0.00027	-4.21932	-1.29444	-4.21932	-1.29444

6.1.38 Figure 2.26: Competitiveness ~ Death Rate of Enterprises in 17 Countries

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
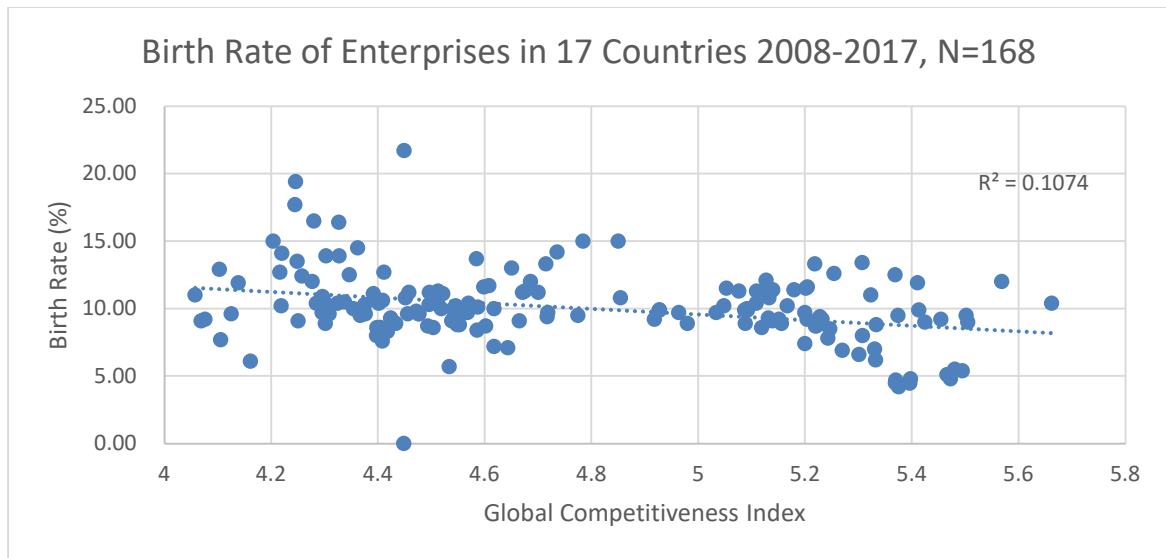
6.1.39 Figure 2.27: Competitiveness ~ Birth Rate of Enterprises in 17 Countries

Source: World Economic Forum 2018 and OECD, 2020a analysed by the author
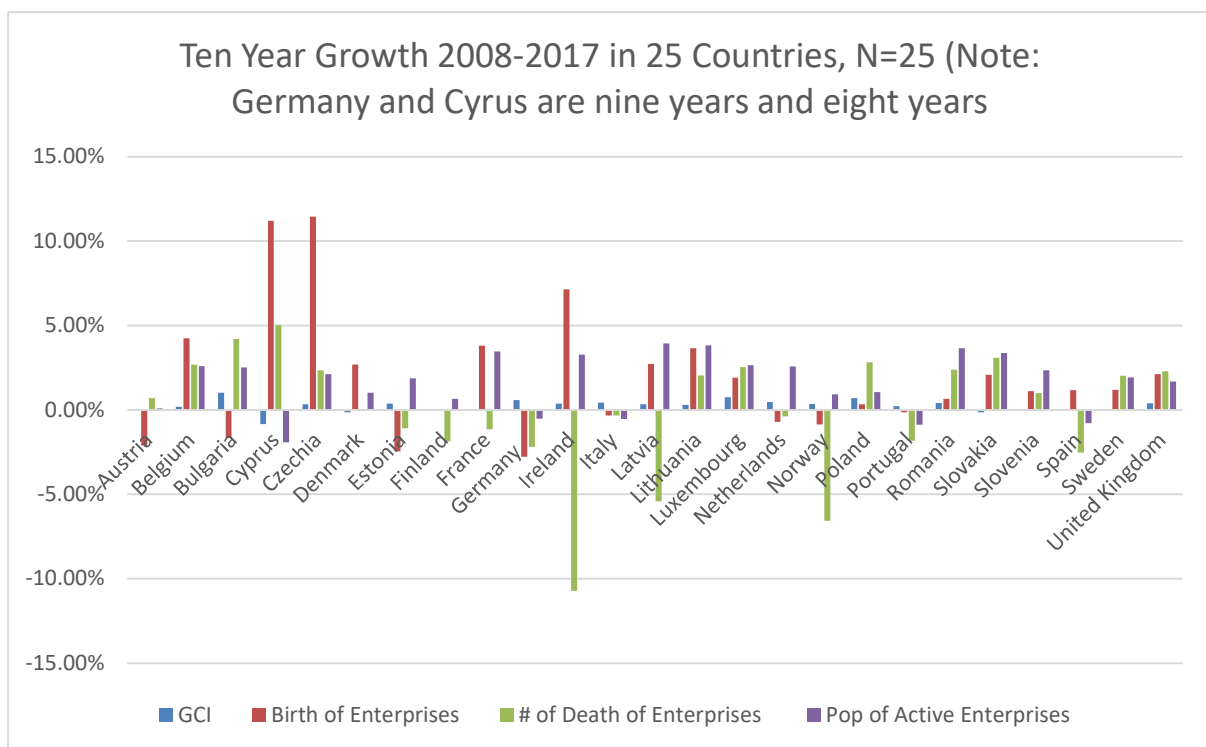
6.1.40 Figure 2.28: Ten Year Annual Growth Competitiveness and Enterprises

Source: Eurostat, 2017, World Economic Forum 2018, and OECD, 2020a, analysed by the author
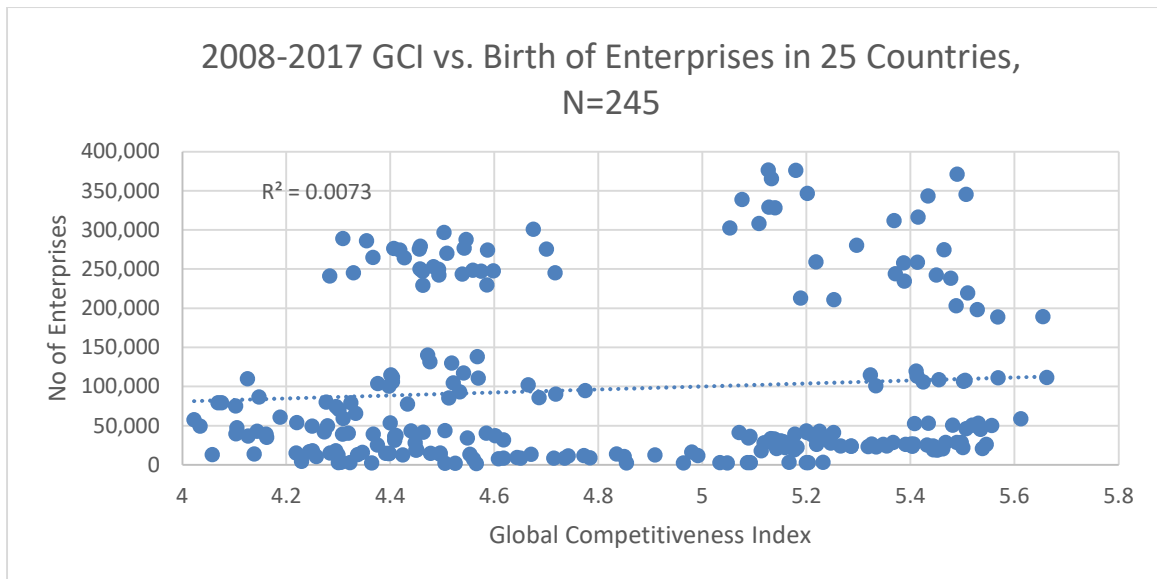
6.1.41 Figure 2.29a: Competitiveness ~ no of Births of Enterprises in 25 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author
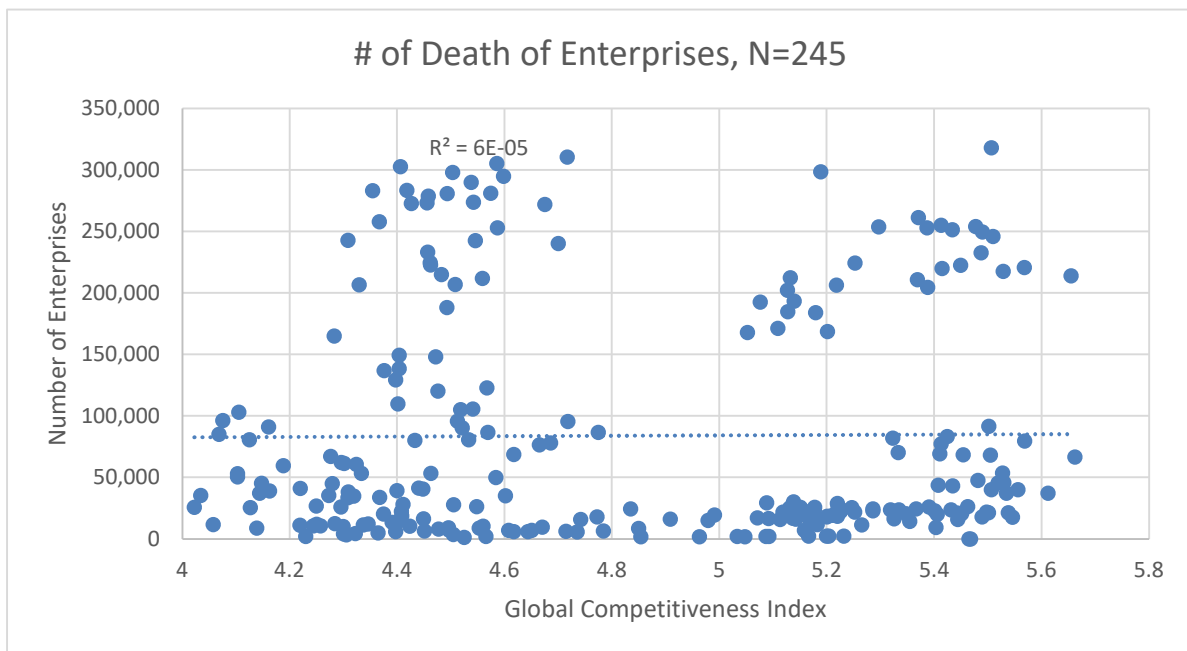
6.1.42 Figure 2.29b: Competitiveness ~ no of Death of Enterprises in 25 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author
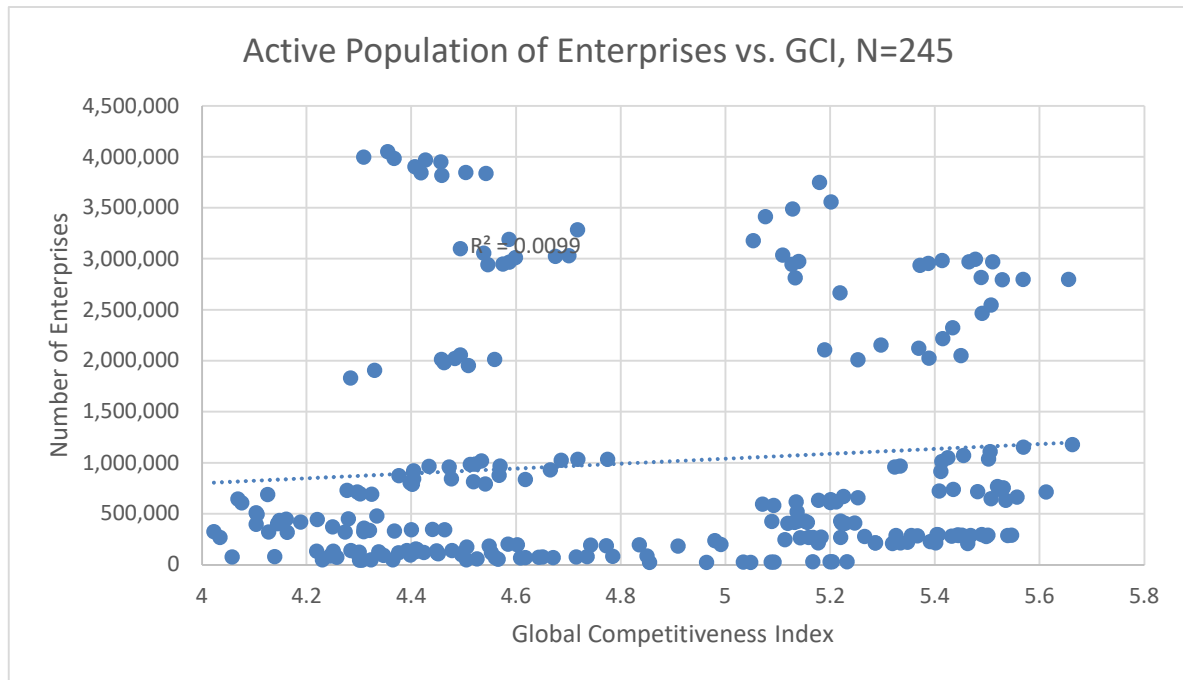
6.1.43 Figure 2.29c: Competitiveness ~ Active Population of Enterprises in 25 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author
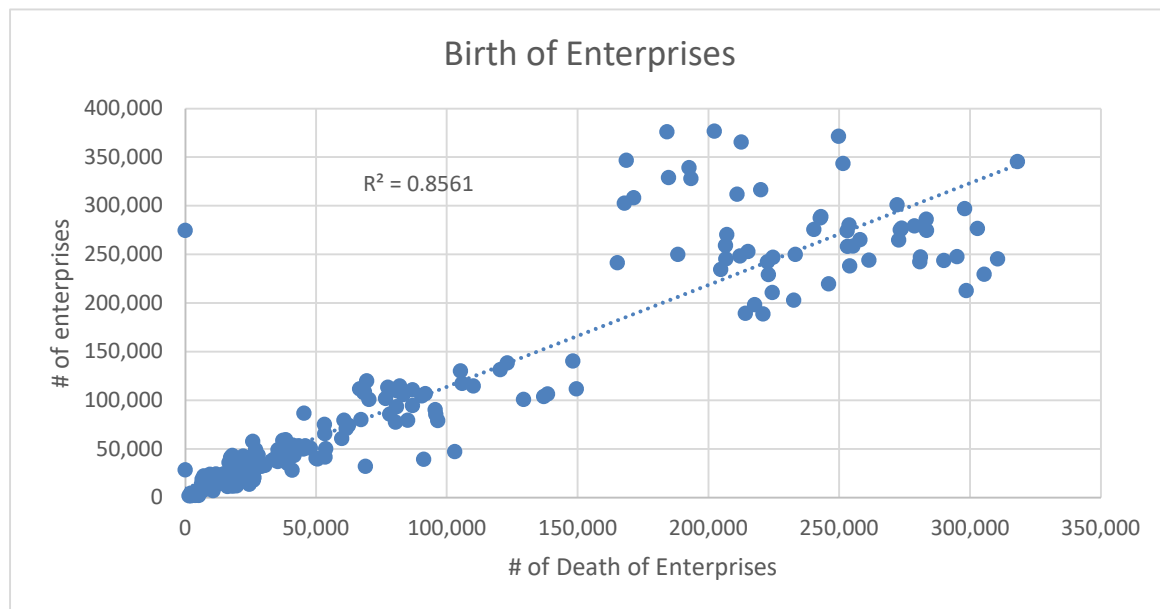
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.925275
R Square	0.856133

Adjusted R Square	0.855541		
Standard Error	40304.99		
Observations	245		

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	2.35E+12	2.35E+12	1446.066	2.7E-104
Residual	243	3.95E+11	1.62E+09		
Total	244	2.74E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	9253.387	3460.232	2.67421	0.007999	2437.511	16069.26	2437.511	16069.26
# of Death of Enter-prises	1.046867	0.027529	38.02717	0.00000	0.99264	1.101094	0.99264	1.101094

6.1.44 Figure 2.29d: # of Deaths of Enterprises ~no of Birth of Enterprises in 25 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author
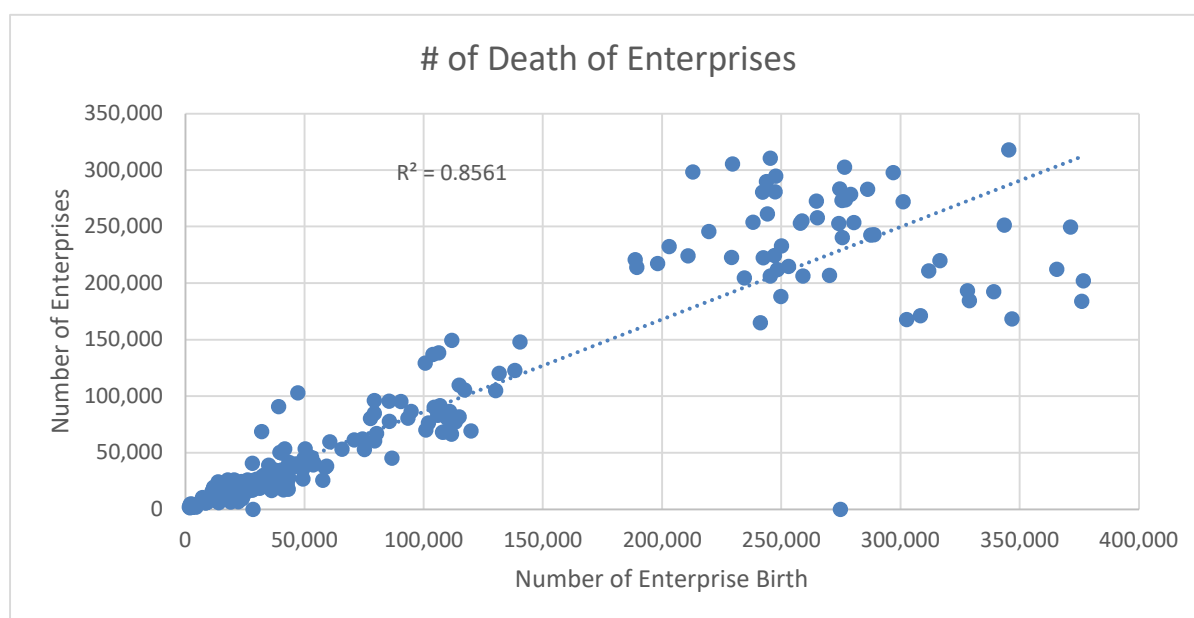
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.925275
R Square	0.856133

Adjusted R Square	0.855541
Standard Error	35623.62
Observations	245

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	1.84E+12	1.84E+12	1446.066	2.7E-104
Residual	243	3.08E+11	1.27E+09		
Total	244	2.14E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4511.766	3089.479	1.460365	0.145482	-1573.81	10597.34	-1573.81	10597.34
Birth of Enter-prises	0.817805	0.021506	38.02717	2.7E-104	0.775444	0.860167	0.775444	0.860167

6.1.45 Figure 2.29e: # of Deaths of Enterprises ~ # of Birth of Enterprises in 25 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author

Description of Variables (25 countries, 245 observations 2008-2017)	Correlation	R Square	T-stat	P-value	Coefficient.D
Model: # of birth of enterprises ~ GCI	0.0855	0.0073	1.34	0.18	19109
Model: # of death of enterprises ~ GCI	0.008	0.0000	0.125	0.90	1590
Model: Active Population of Enterprises ~ GCI	0.09	0.009	1.55	0.12	240062
Model: # of Enterprise Births ~ # of Enter-prise Death	0.92	0.85	38.02	0.000	1.046
Model: # of Enterprise Death ~ # of Enter-prise Births	0.92	0.85	38.02	0.000	0.817

6.1.46 Figure 2.29f: Summary of # of Death and Birth of Enterprises and Competitiveness

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author
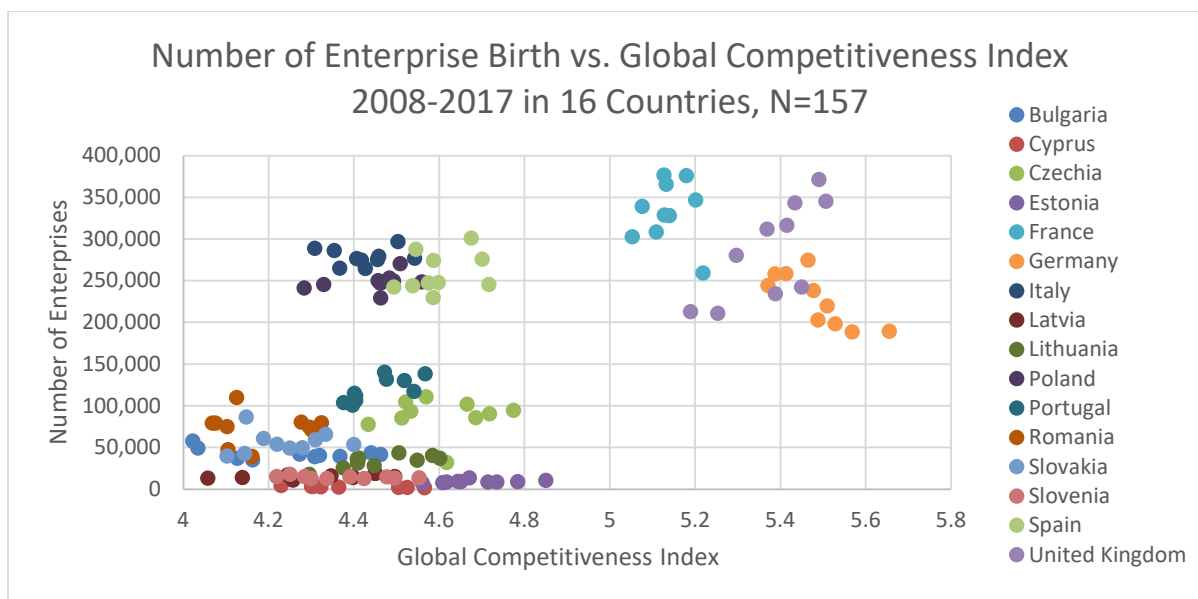
SUMMARY OUTPUT

| Regression Statistics	
Multiple R	0.604107
R Square	0.364945
Adjusted R Square	0.360848
Standard Error	93968.83
Observations	157

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	7.87E+11	7.87E+11	89.07337	5.47E-17
Residual	155	1.37E+12	8.83E+09		
Total	156	2.16E+12			

	Coeffi-cients	Stand-ard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Inter-cept	-681157	86416.3 8	-7.88226	5.32E-13	-851863	-510451	-851863	-510451
GCI	176893. 8	18742.9 9	9.43786 9	0.00000	139869. 2	213918. 5	139869. 2	213918. 5

6.1.47 Figure 2.30a: # Birth of Enterprises ~ Competitiveness in 16 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author
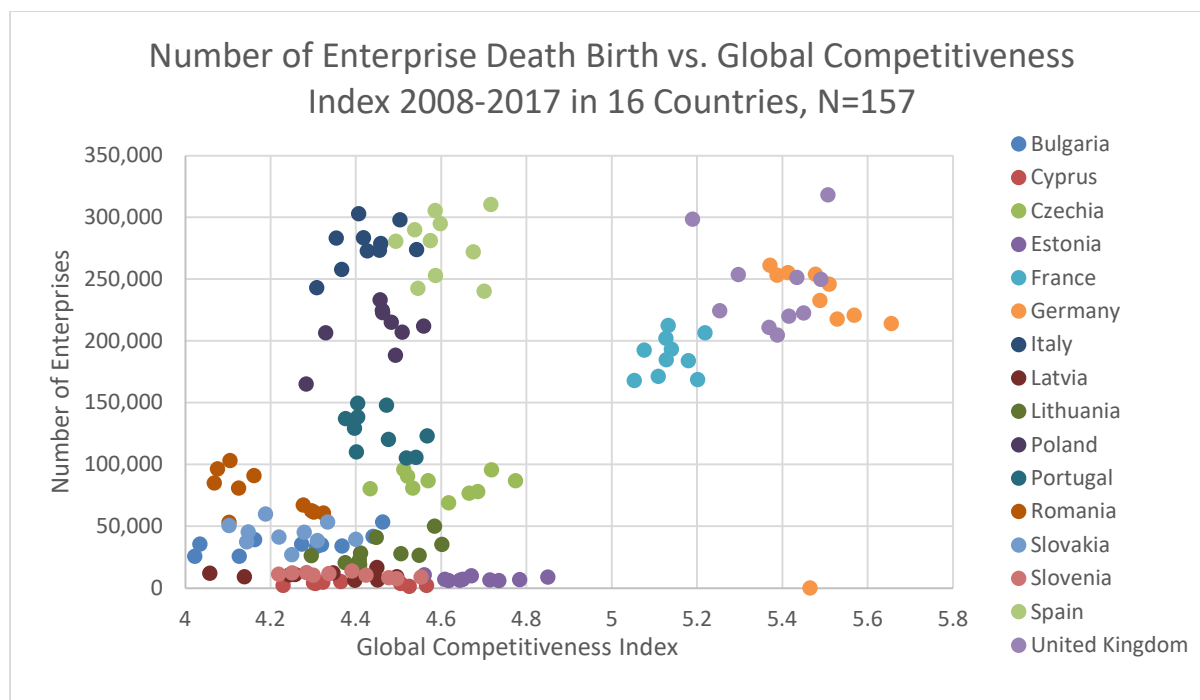
Multiple R		0.512839
R Square		0.263004
Adjusted R Square		0.258249
Standard Error		88901.12
Observations		157

ANOVA

	df	SS	MS	F	Significance F
Regression	1	4.37E+11	4.37E+11	55.31312	6.56E-12
Residual	155	1.23E+12	7.9E+09		
Total	156	1.66E+12			

	Coeffi-cients	Stand-ard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Inter-cept	-489937	81755.98	-5.99267	1.39E-08	-651436	-328437	-651436	-328437
GCI	131879.2	17732.18	7.437279	0.00000	96851.26	166907.1	96851.26	166907.1

6.1.48 Figure 2.30b: # Death of Enterprises ~ Competitiveness in 16 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author

Population of Active Enterprises vs. Global Competitiveness Index 2008-2017 in 16 Countries
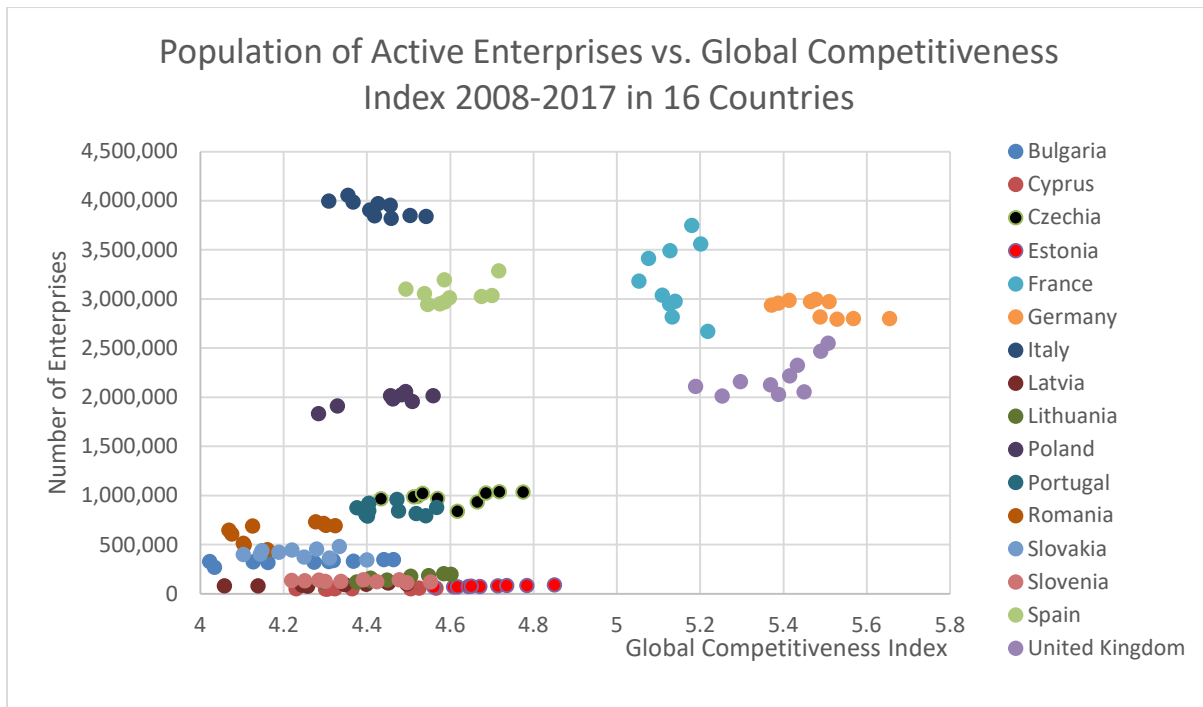
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.545738748
R Square	0.297830781
Adjusted R Square	0.293300657
Standard Error	1102952.04
Observations	157

ANOVA

	df	SS	MS	F	Significance F
Regression	1	8E+13	8E+13	65.74451	1.45E-13
Residual	155	1.89E+14	1.22E+12		
Total	156	2.69E+14			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-6871054.638	1014306	-6.77414	2.45E-10	-8874701	-4867408	-8874701	-4867408
GCI	1,783,780.21	219994.4	8.108299	1.45E-13	1349206	2218354	1349206	2218354

6.1.49 Figure 2.30c: Active Population of Enterprises ~ Competitiveness in 16 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author

Number of Enterprise Birth vs. Death 2008-2017 in 16 Countries
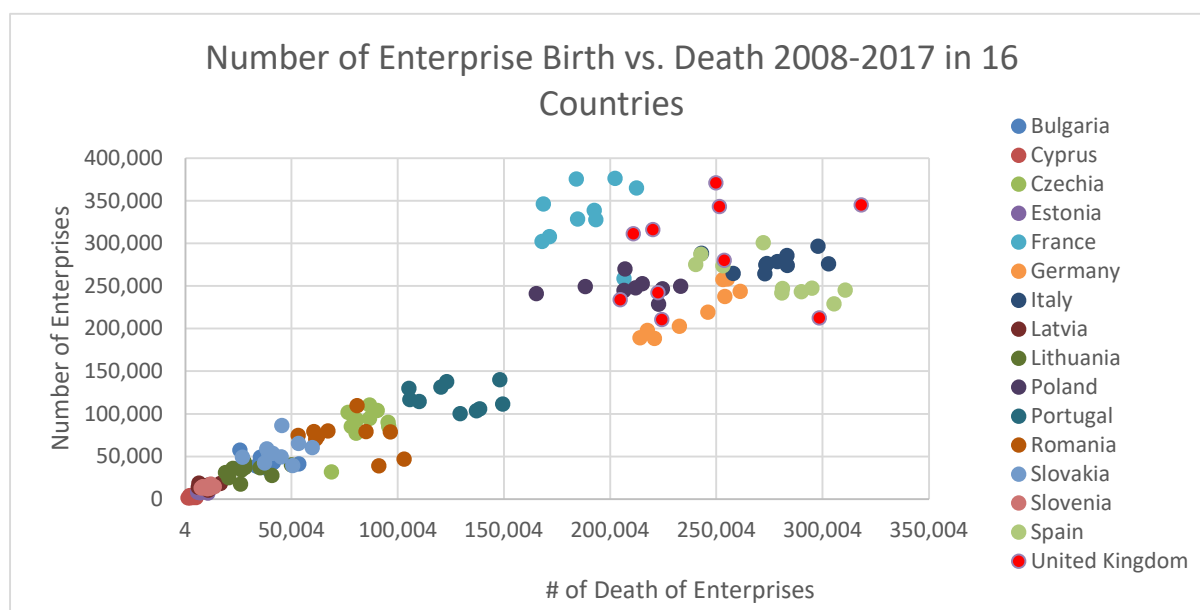
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.906995
R Square	0.82264
Adjusted R Square	0.821495
Standard Error	49659.97
Observations	157

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	1.77E+12	1.77E+12	718.9268	4.31E-60
Residual	155	3.82E+11	2.47E+09		
Total	156	2.16E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	11744.98	5967.146	1.968275	0.05082	-42.4391	23532.41	-42.4391	23532.41
# of Death of Enter-prises	1.032781	0.038518	26.81281	0.00000	0.956693	1.10887	0.956693	1.10887

6.1.50 Figure 2.30d: # of Enterprises Birth ~ # of Death of Enterprises in 16 Countries Source:

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author
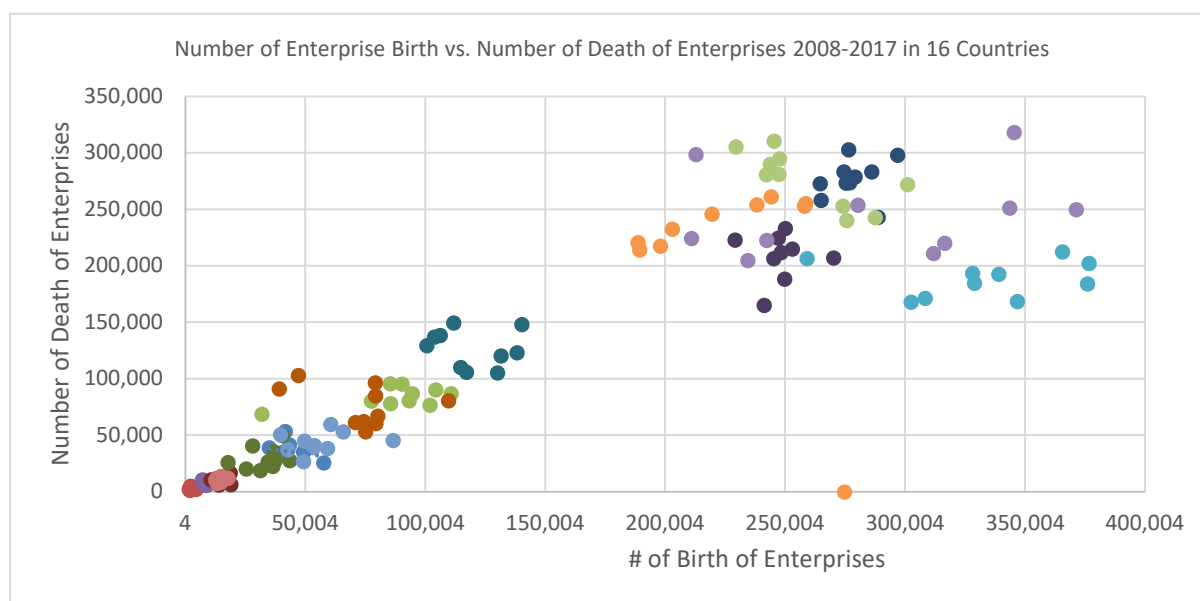
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.906995
R Square	0.82264
Adjusted R Square	0.821495
Standard Error	43611.69
Observations	157

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	1.37E+12	1.37E+12	718.9268	4.31E-60
Residual	155	2.95E+11	1.9E+09		
Total	156	1.66E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	11185.12	5228.849	2.139116	0.033992	856.1148	21514.12	856.1148	21514.12
Birth of Enter-prises	0.796528	0.029707	26.81281	4.31E-60	0.737845	0.855211	0.737845	0.855211

6.1.51 Figure 2.30e: # of Enterprises Death ~ # of Birth of Enterprises in 16 Countries

Source: Eurostat, 2017 and World Economic Forum 2018 analysed by the author

# of Enterprises Entry 2006-2017 (Corporation Only), N=151 Index 2007 =100
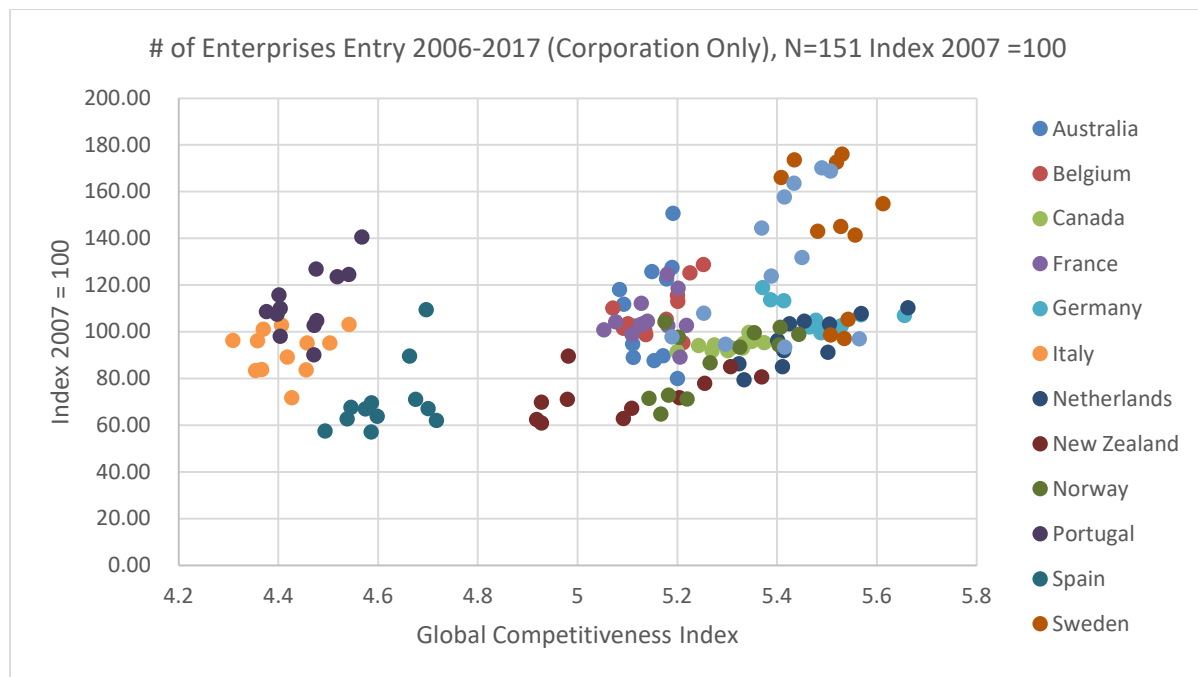
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.34425
R Square	0.118508
Adjusted R Square	0.112592
Standard Error	23.47657
Observations	151

ANOVA

	df	SS	MS	F	Significance F
Regression	1	11040.38	11040.38	20.03156	1.5E-05
Residual	149	82121.25	551.1493		
Total	150	93161.63			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-14.05	26.01064	-0.54016	0.58989	-65.4474	37.34735	-65.4474	37.34735
Global Competitiveness Index	22.73916	5.080624	4.475663	0.00002	12.69978	32.77854	12.69978	32.77854

6.1.52 Figure 2.31: Indexed Number of Corporation ~ Competitiveness in 13 Countries

Source, 2020b, analysed by the author
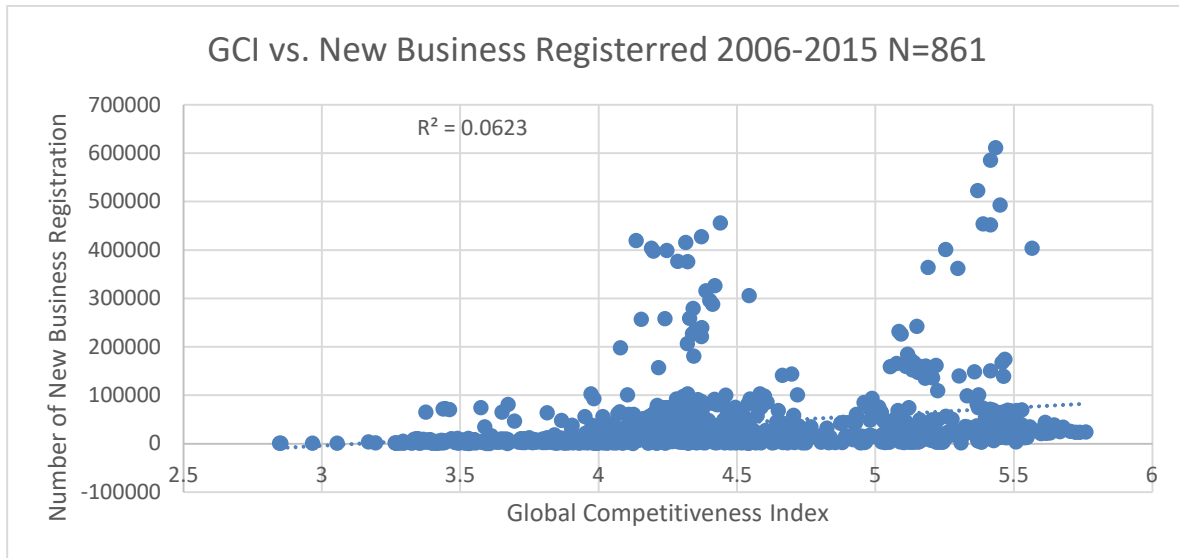
6.1.53 Figure 2.32a: New Business Registration ~ Competitiveness Index in 92 Countries

Source: World 2019b and World Economic Forum 2018
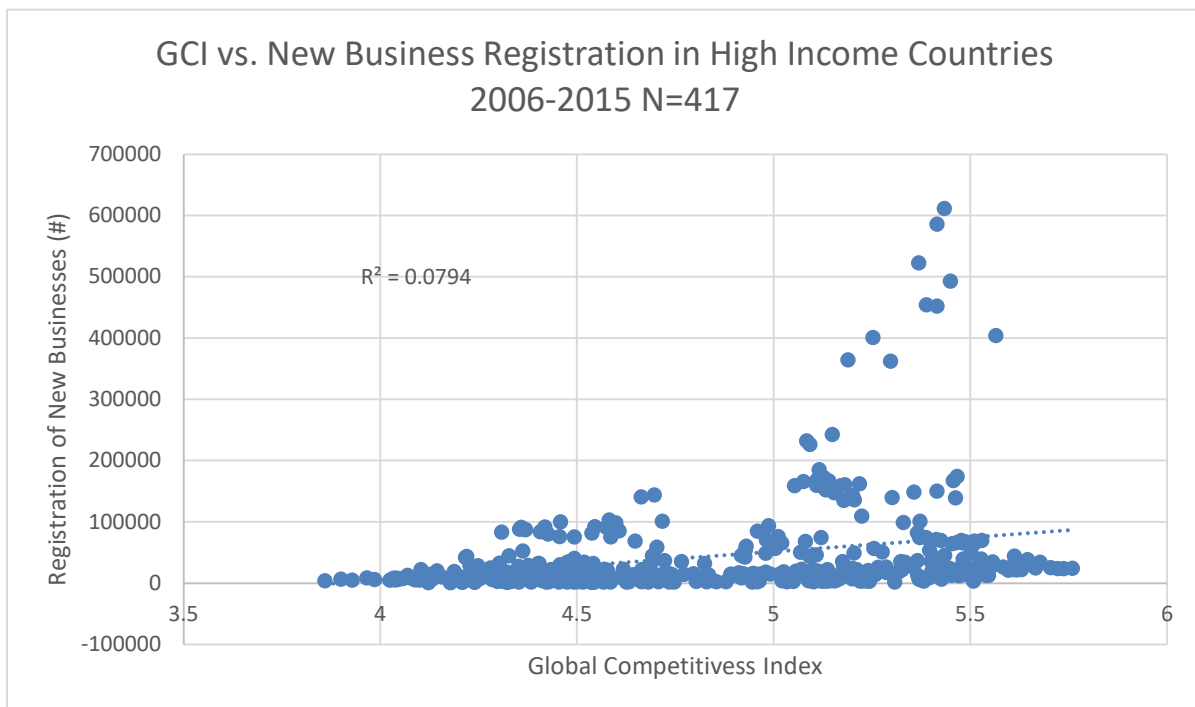
6.1.54 Figure 2.32b: New Business Registr. ~ Competitiveness in 42 High Income Countries

Source: World Bank 2019b and World Economic Forum, 2018
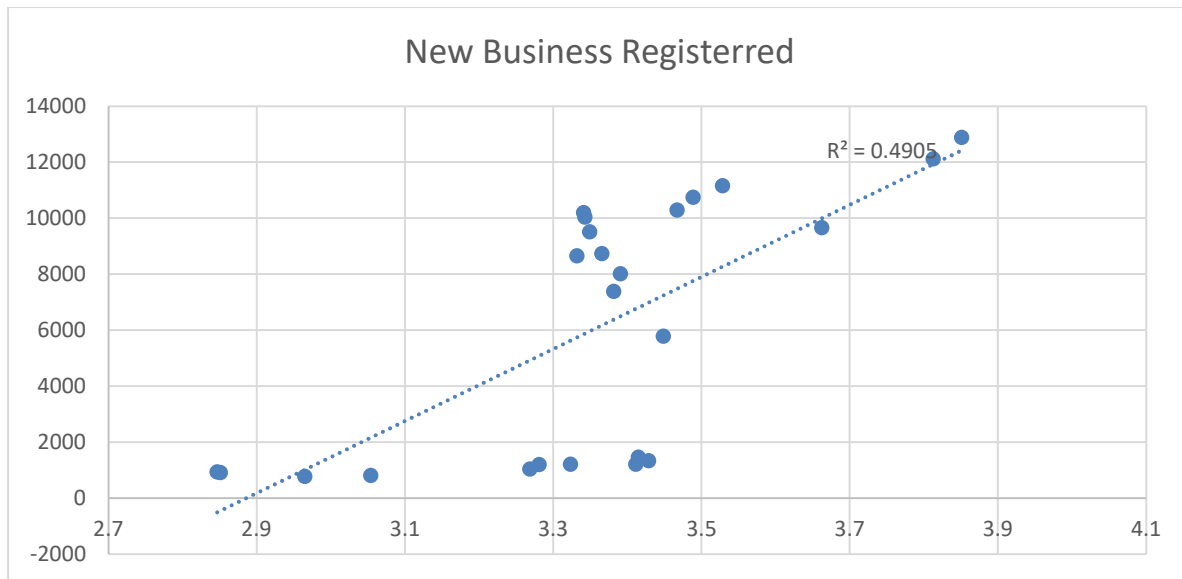
6.1.55 Figure 2.32c: New Business Registr.~ Competitiveness in 5 Low Income Countries

Source: World Bank 2019b and World Economic Forum, 2018
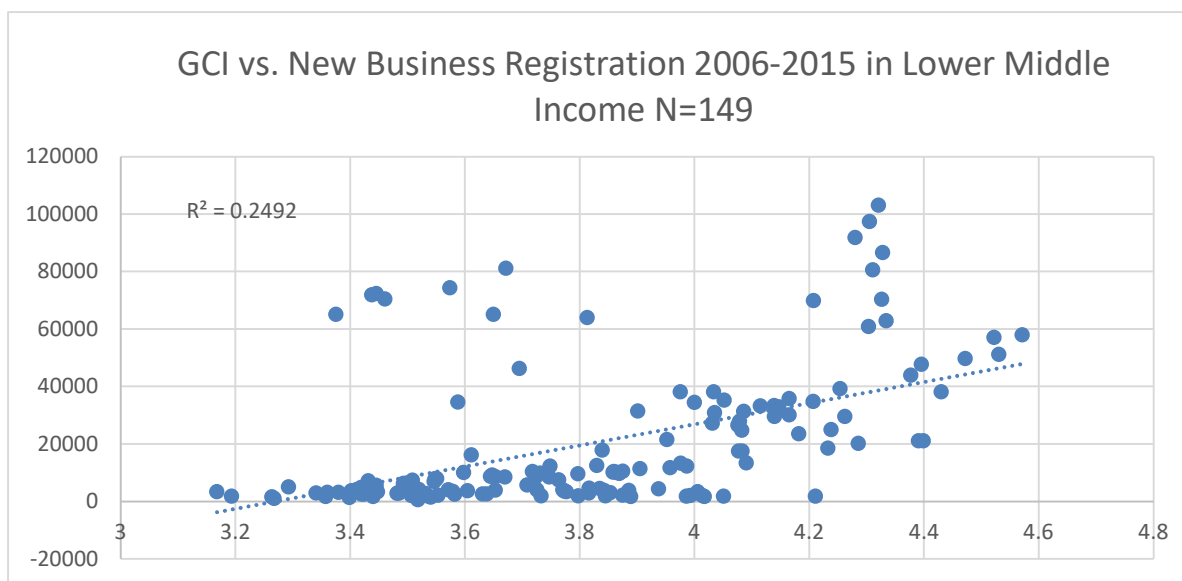
6.1.56 Figure 2.32d: New Business Reg.~ Competitiveness in 16 Lower Middle Income Countries

Source: World Bank 2019b and World Economic Forum, 2018
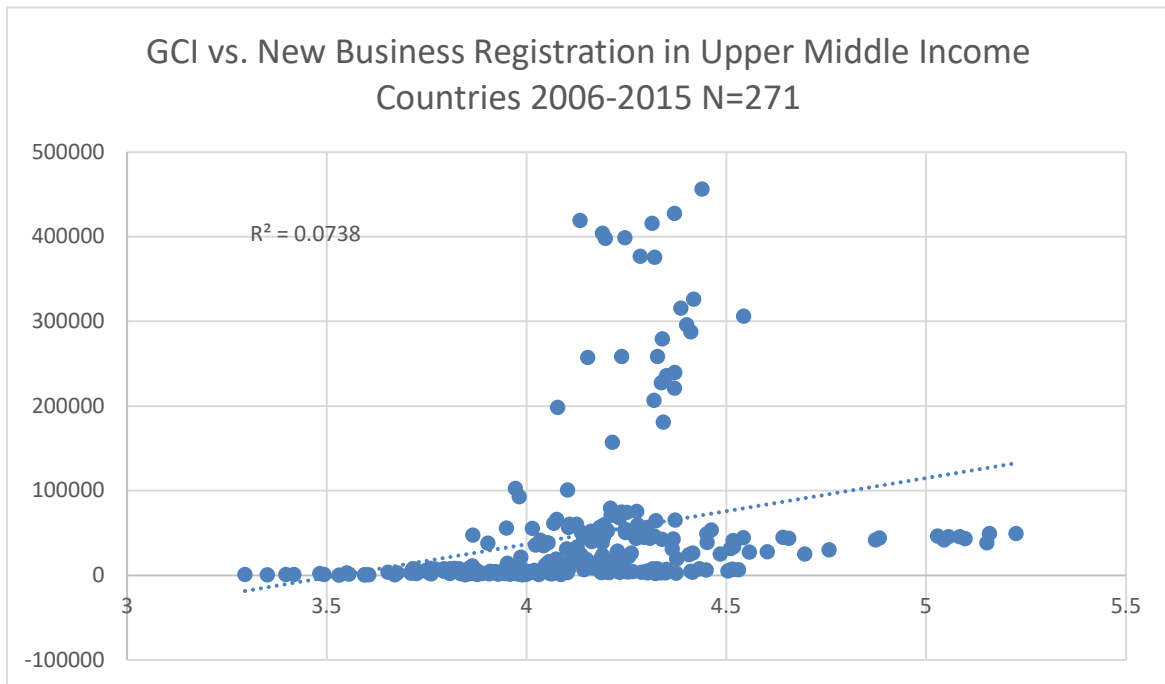
6.1.57 Figure 2.32e: New Business Reg.~ Competitiveness in 28 Upper Middle-Income Countries

Source: World Bank 2019b and World Economic Forum, 2018
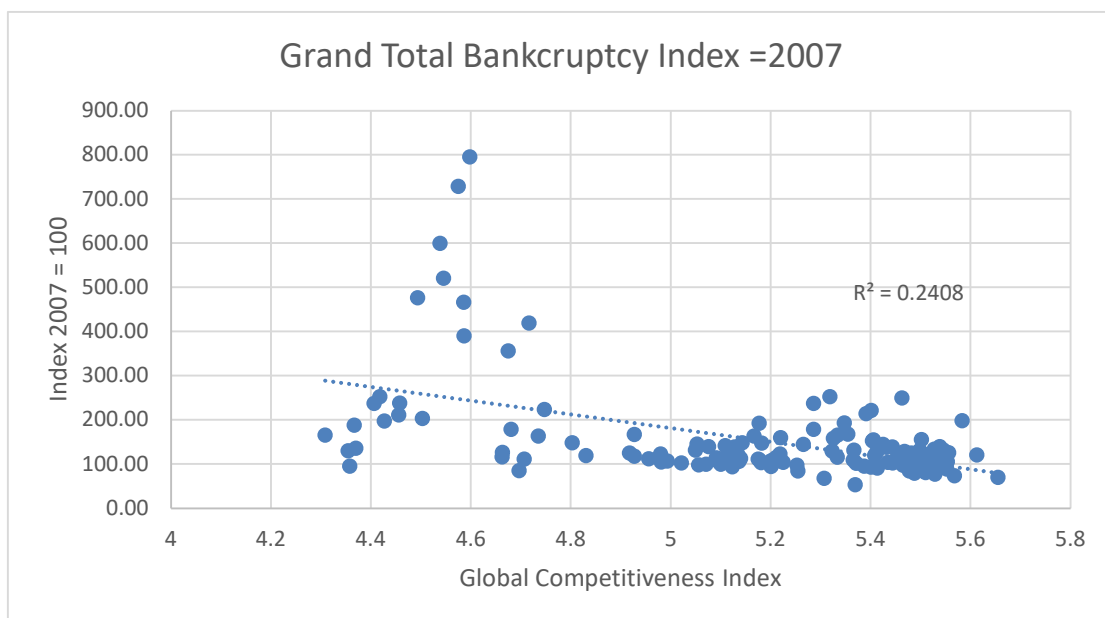
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.490682
R Square	0.240769

Adjusted R Square	0.235061
Standard Error	99.49538
Observations	135

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	417527.1	417527.1	42.1773	1.53E-09
Residual	133	1316611	9899.331		
Total	134	1734138			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	958.3883	123.6098	7.753335	2.07E-12	713.8929	1202.884	713.8929	1202.884
Global Competitiveness Index	-155.37	23.92363	-6.49441	0.00000	-202.69	-108.05	-202.69	-108.05

6.1.58 Figure 2.33: Bankruptcy ~ Competitiveness in 12 High Income Countries

Source: OECD, 2020b and World Economic Forum 2016a
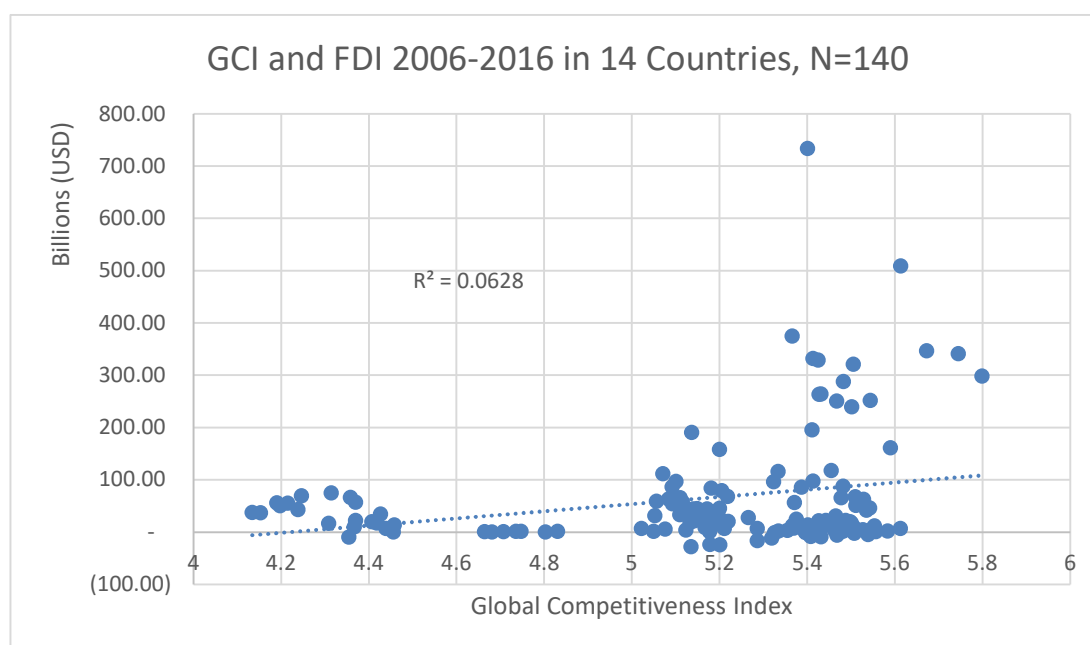
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.25058

R Square			0.06279
Adjusted R Square			0.056
Standard Error			1.1E+11
Observations			140

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	1.09E+23	1.09E+23	9.245976	0.002825
Residual	138	1.62E+24	1.17E+22		
Total	139	1.73E+24			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-3E+11	1.17E+11	-2.47361	0.014589	-5.2E+11	-5.8E+10	-5.2E+11	-5.8E+10
Global Competi-tiveness Index	#######	2.26E+10	3.04072	0.002825	2.4E+10	1.13E+11	2.4E+10	1.13E+11

6.1.59 Figure 2.34a: Foreign Direct Investment ~ Competitiveness Index in 14 Countries

Source: World Bank, 2019b and World Economic Forum, 2016a
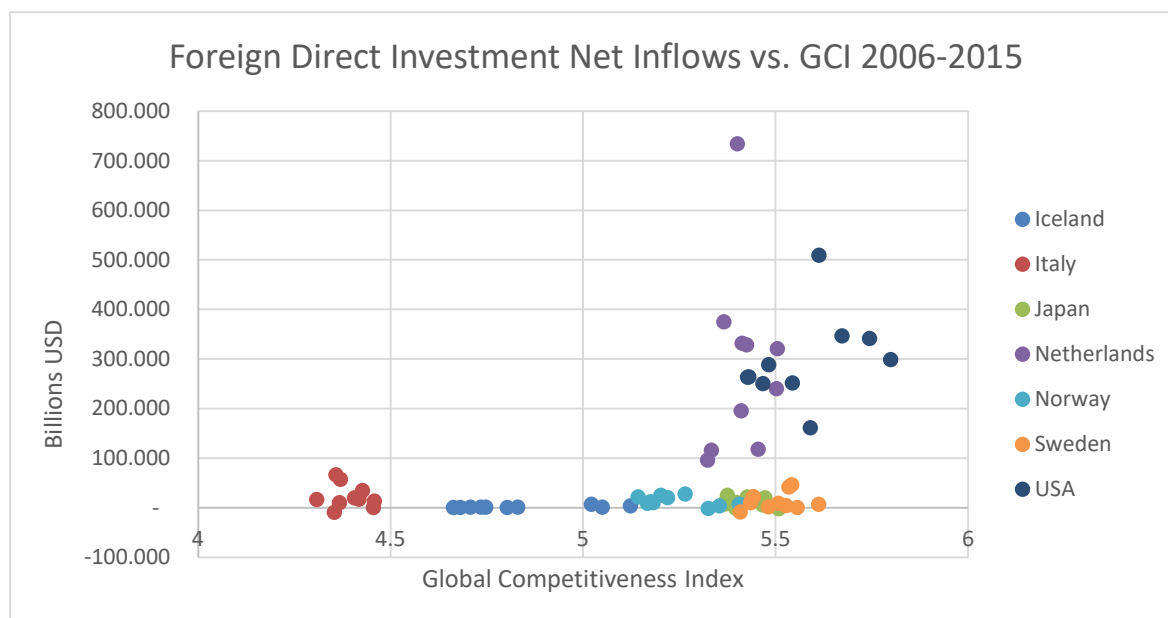
SUMMARY OUTPUT

Regression Statistics

Multiple R		0.40
R Square		0.16
Adjusted R Square		0.144389157
Standard Error		1.37243E+11
Observations		70

ANOVA

	df	SS	MS	F	Significance F
Regression	1	2.38E+23	2.38E+23	12.64414	0.000691159
Residual	68	1.28E+24	1.88E+22		
Total	69	1.52E+24			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Inter-cept	-6.48468E+11	2.09E+11	-3.1	0.002776	-1E+12	-2.3E+11	-1.1E+12	-2.3E+11
GCI	142,445,082,282.49	4.01E+10	3.56	0.000691	6.3E+10	2.22E+11	6.25E+10	2.22E+11

6.1.60 Figure 2.34b: Foreign Direct Investment ~ Competitiveness Index in 7 Countries

Source: World Bank, 2019b and World Economic Forum, 2016a
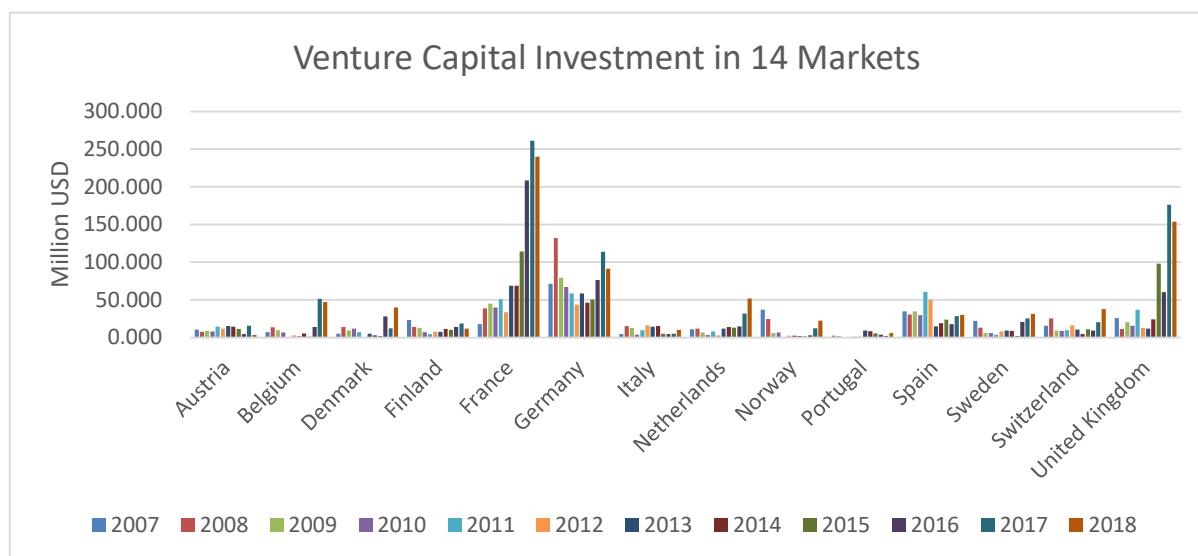
6.1.61 Figure 2.35a: Venture Capital Investment in 14 Countries at Seed Stage

Source: OECD, 2020c analysed by the author
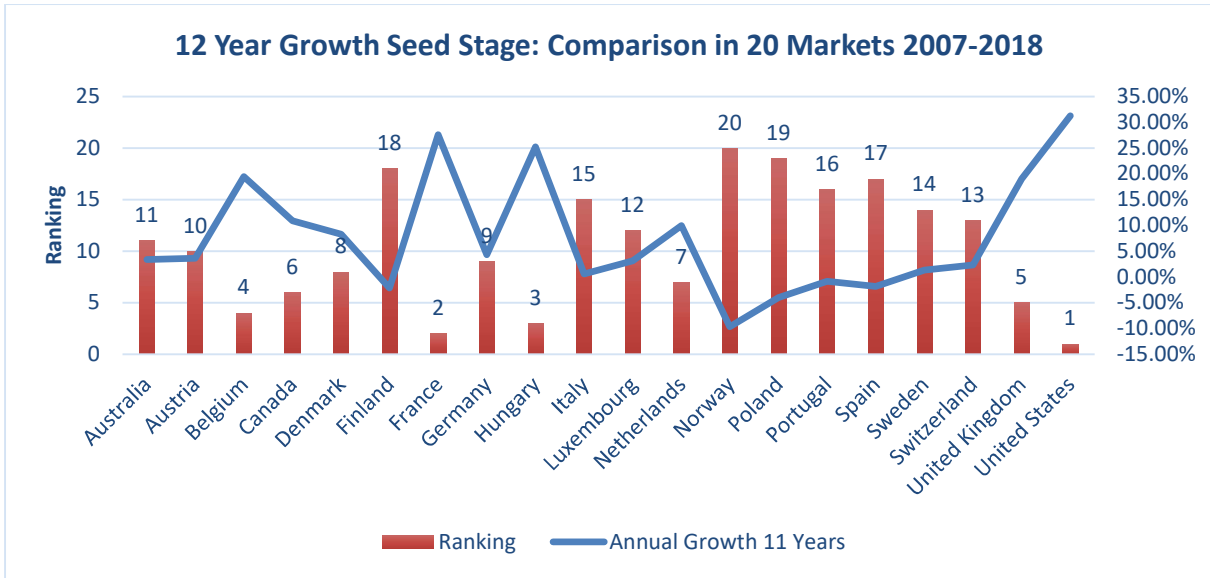
6.1.62 Figure 2.35b: 12 Year Annual Growth, Ranking on Venture Capital Inv. at Seed Stage

Source: OECD, 2020c analysed by the author
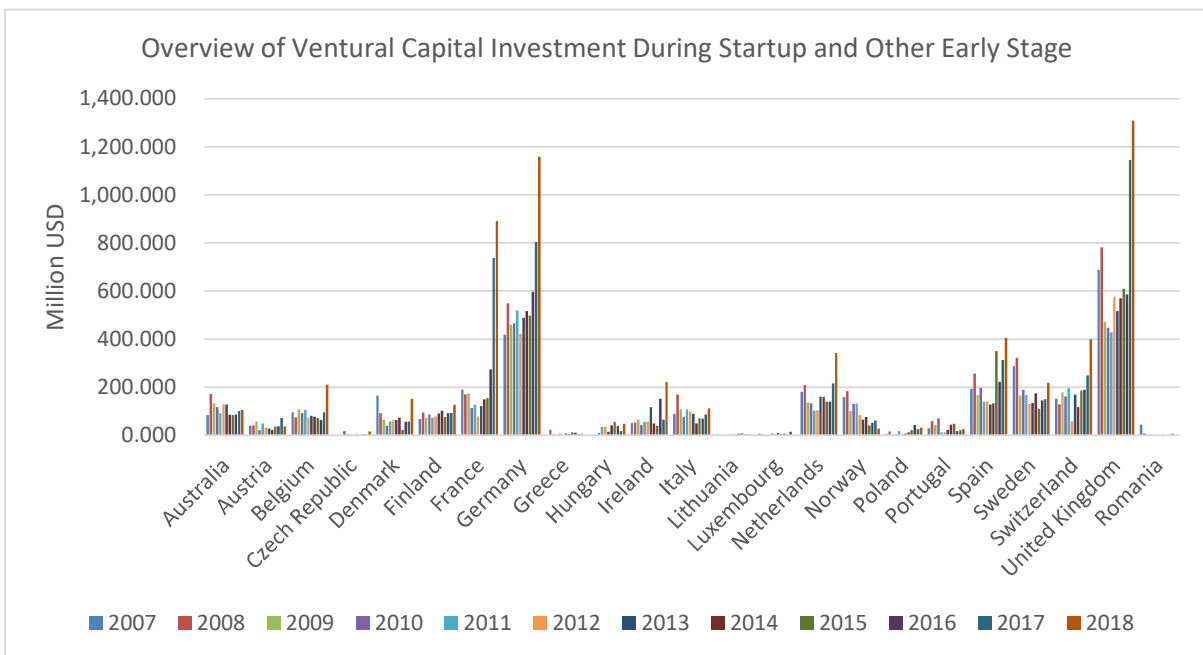
6.1.63 Figure 2.35c: 12 Year Overview of Venture Capital Investment During Startup and Other Early Stage

Source: OECD, 2020c analysed by the author
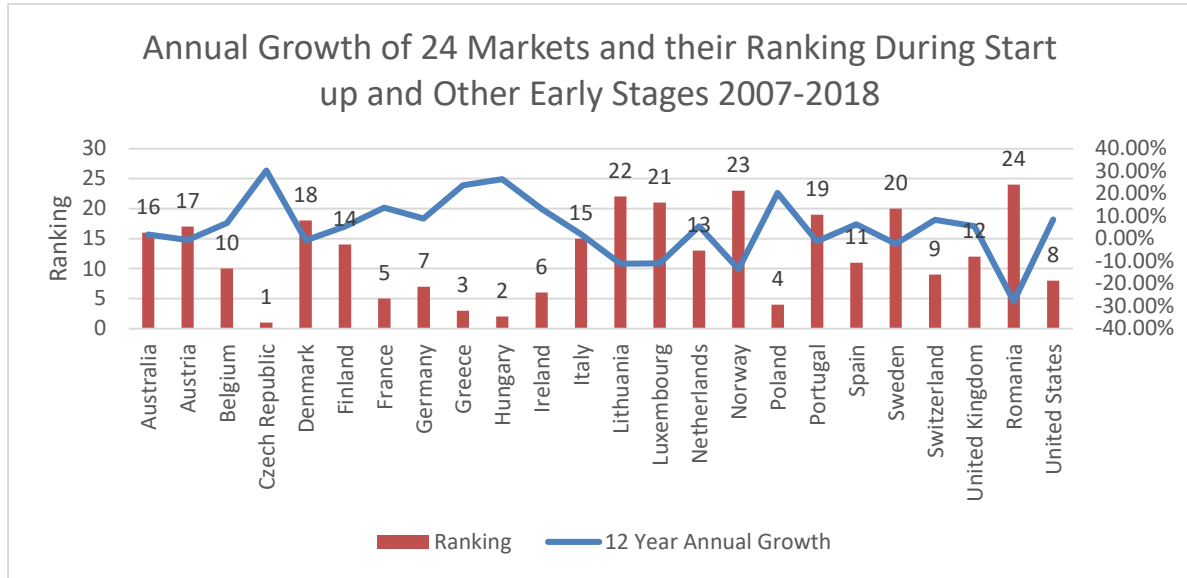
Figure 2.35d: 12 Year Annual Growth and Ranking Venture Capital Investment

Source: OECD, 2020c analysed by the author
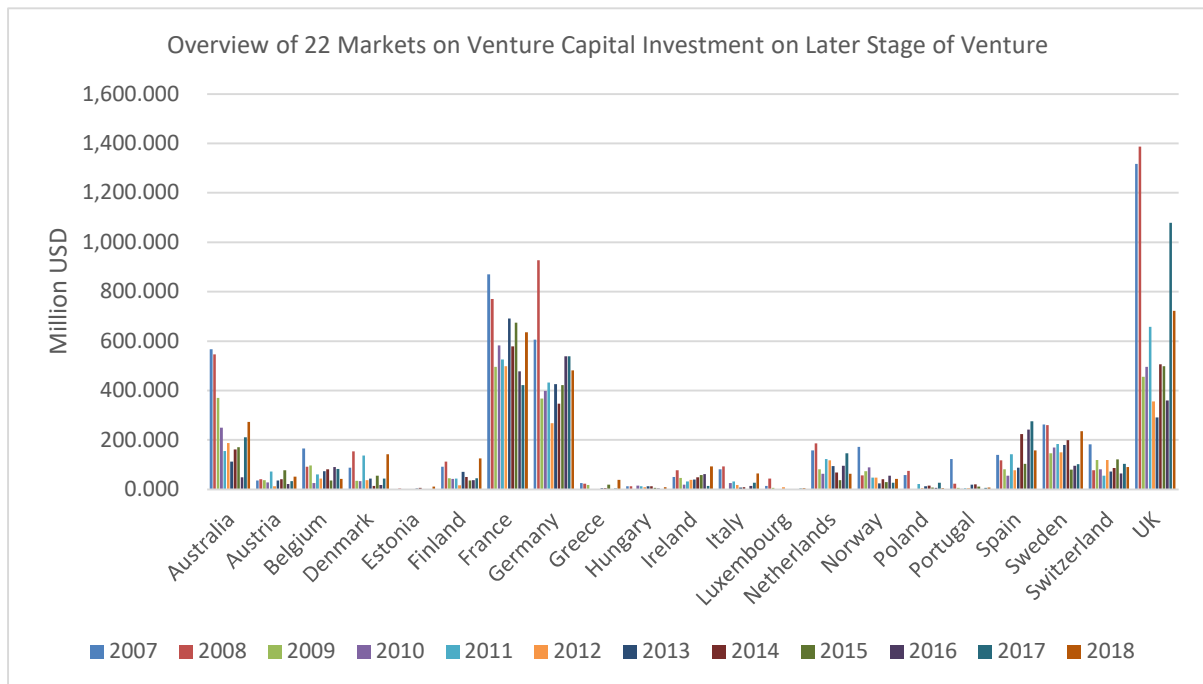
6.1.64 Figure 2.35e: 24 Markets on Venture Capital Investment at Later Stage of Venture

Source: OECD, 2020c analysed by the author
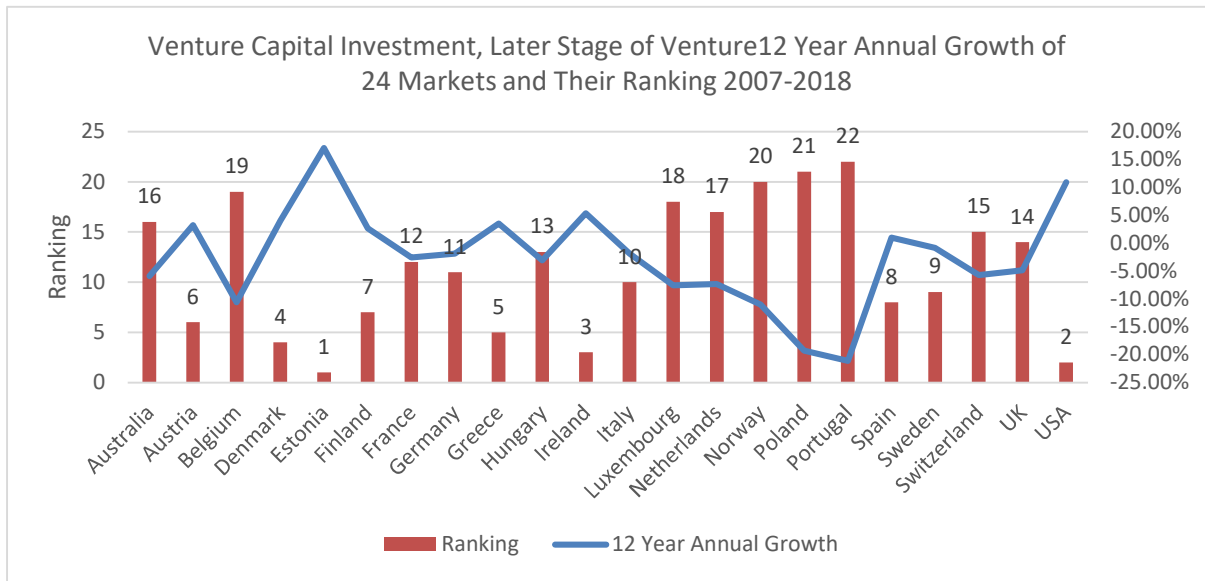
6.1.65 Figure 2.35f: 12 Year Annual Growth and Ranking at Later Stage of Venture

Source: OECD, 2020c analysed by the author
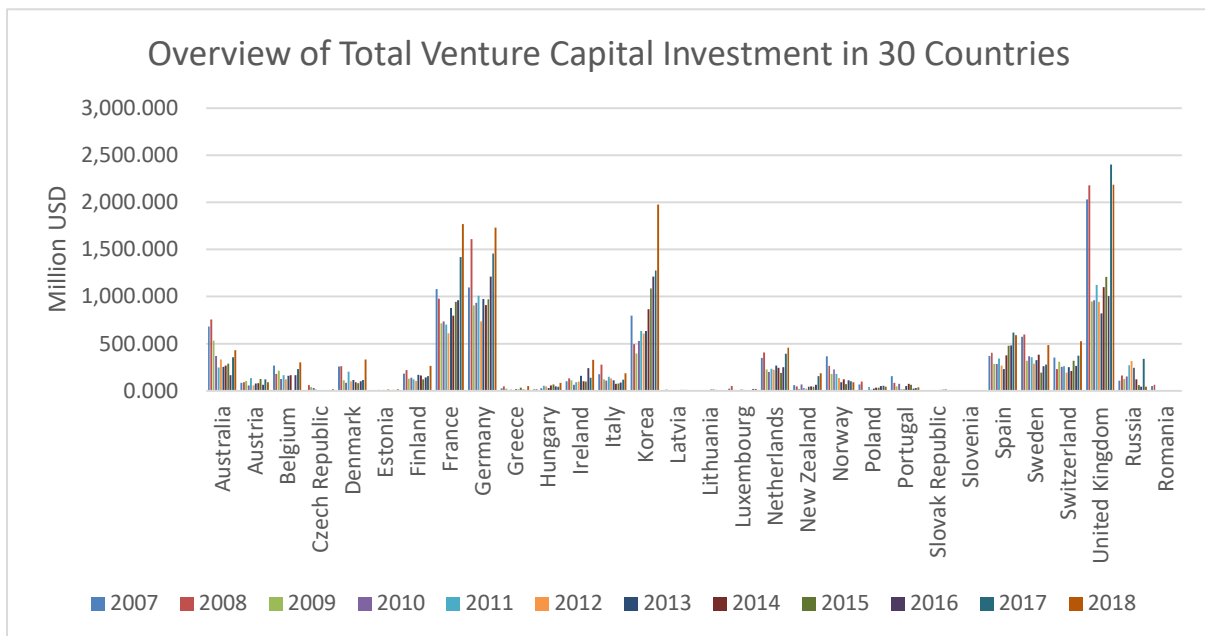
6.1.66 Figure 2.35g: Overview of Venture Capital Investment in 30 Markets

Source: OECD, 2020c analysed by the author
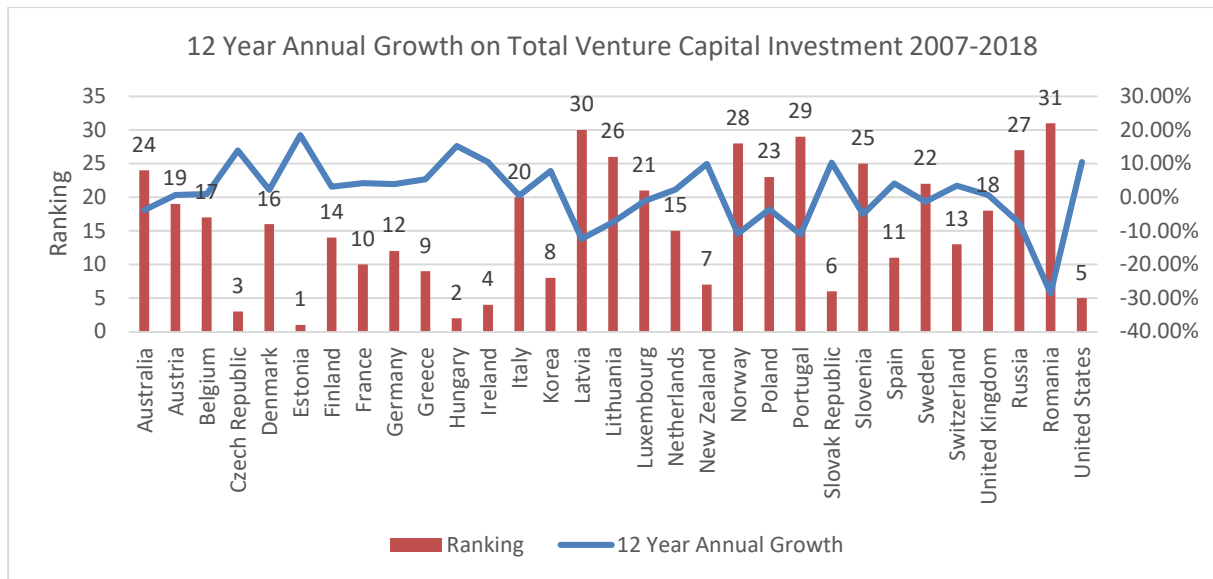
6.1.67 Figure 2.35h: 12 Year Annual Growth and Ranking Total Venture Capital Investment

Source: OECD, 2020c analysed by the author
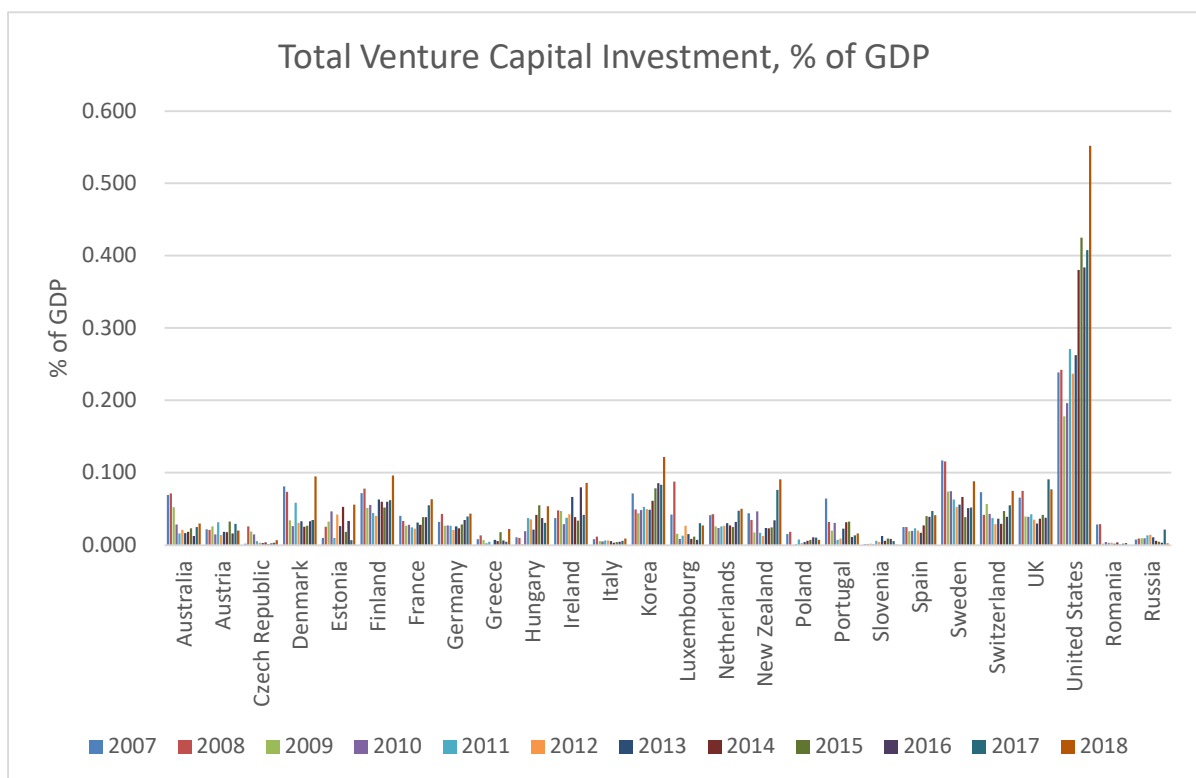
6.1.68 Figure 2.35i: Total Venture Capital Investment in 26 Countries

Source: OECD, 2020c analysed by the author
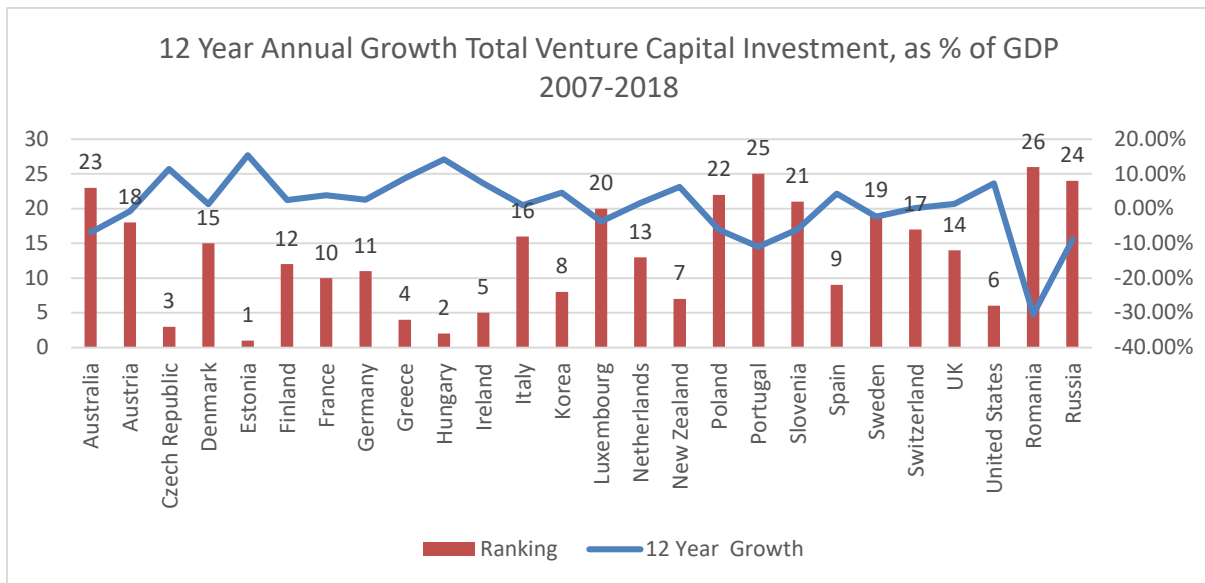
6.1.69 Figure 2.35j: Annual Growth and Ranking Venture Capital Investment, as % of GDP

Source: OECD, 2020c analysed by the author
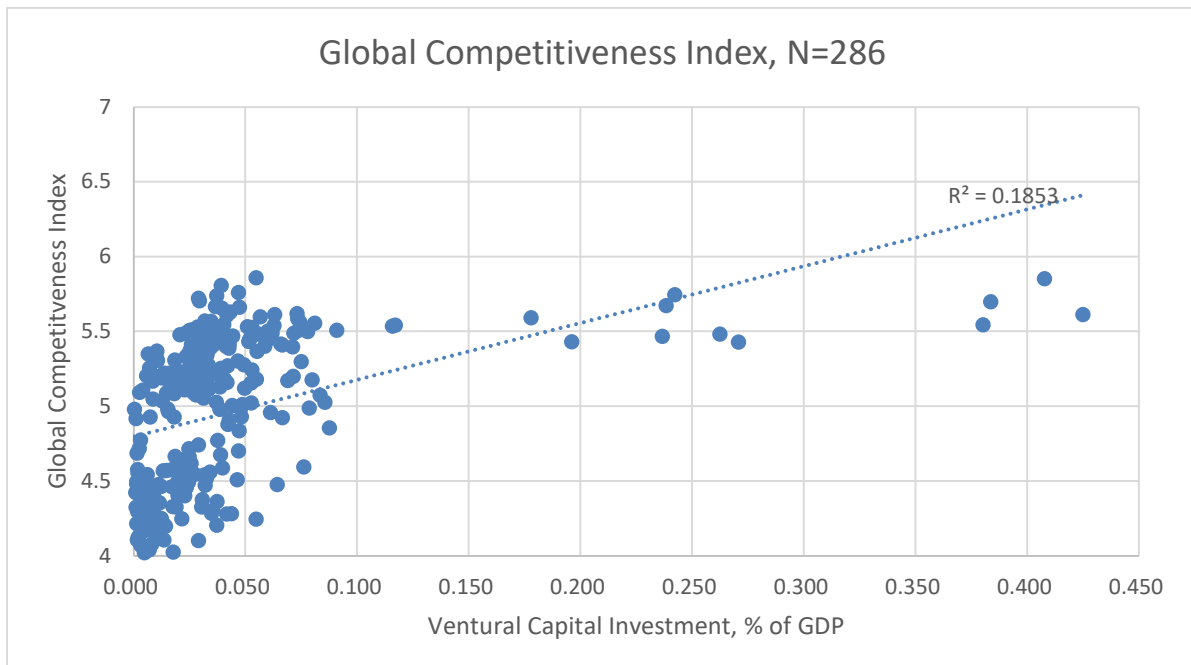
SUMMARY OUTPUT

Regression Statistics

Multiple R	0.43
R Square	0.19
Adjusted R Square	0.18243
Standard Error	0.460763
Observations	286

ANOVA

	df	SS	MS	F	Significance F
Regression	1	13.71347	13.71347	64.59408	2.49E-14
Residual	284	60.29385	0.212302		
Total	285	74.00731			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	4.797547	0.032996	145.3971	1.1E-268	4.732598	4.862495	4.732598	4.862495
% of GDP Venture Capital Investment	3.795895	0.4723	8.04	0.00000	2.866242	4.725547	2.866242	4.725547

6.1.70 Figure 2.36a: Venture Capital Investment, % of GDP ~ GCI in 26 Countries

Source: OECD, 2020c and World Economic Forum 2018/2016a analysed by the author
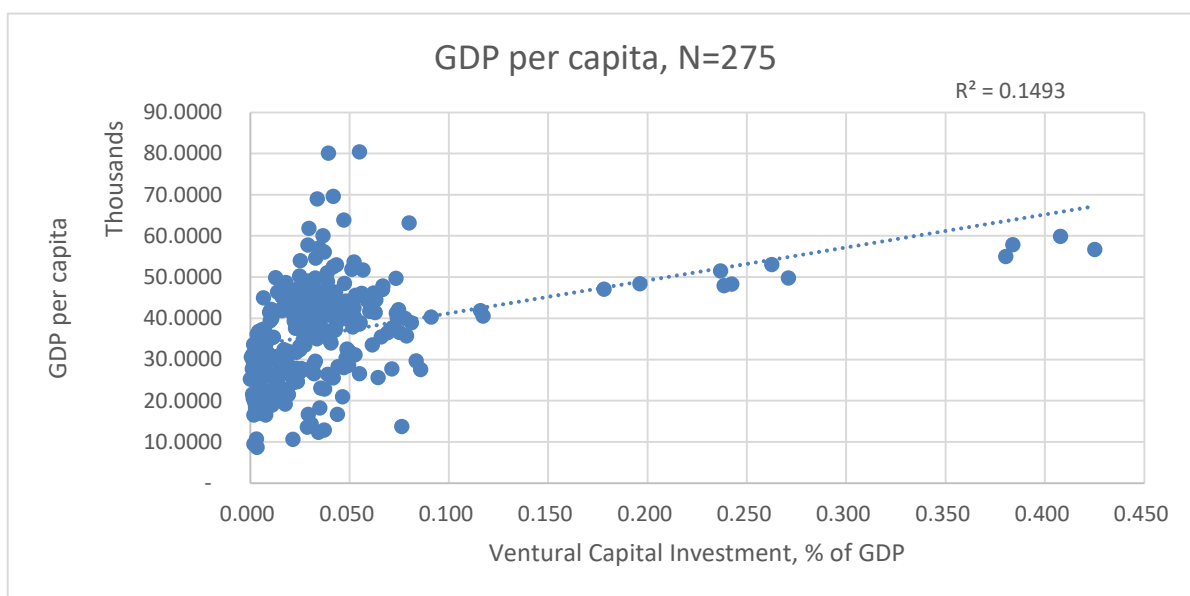
SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.39
R Square	0.15
Adjusted R Square	0.15

Standard Error	11211.62
Observations	275

ANOVA

	df	SS	MS	F	Signifi-cance F
Regres-sion	1	6.02E+09	6.02E+09	47.90991	3.18E-11
Residual	273	3.43E+10	1.26E+08		
Total	274	4.03E+10			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	33269.24	818.808	40.63131	9.2E-118	31657.26	34881.22	31657.26	34881.22
% of GDP Venture Capital Investment	79893.97	11542.54	6.92	0.0000	57170.27	102617.7	57170.27	102617.7

6.1.71 Figure 2.36b: GDP per capita ~ Venture Capital Investment, % of GDP in 25 Countries

Source: OECD, 2020c and World Economic Forum 2018/2016a analysed by the author
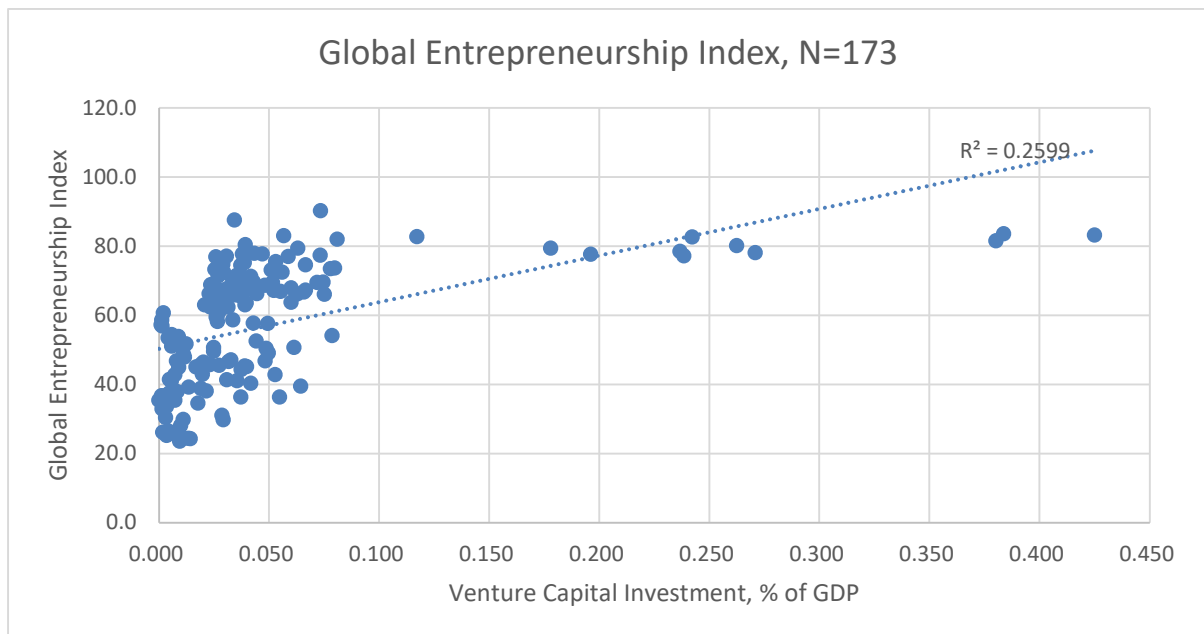
6.1.72 Figure 2.36c: Venture Capital Investment, % of GDP ~ Entrepreneurship 19 Countries

Source: OECD, 2019c and GEDI 2016-2016
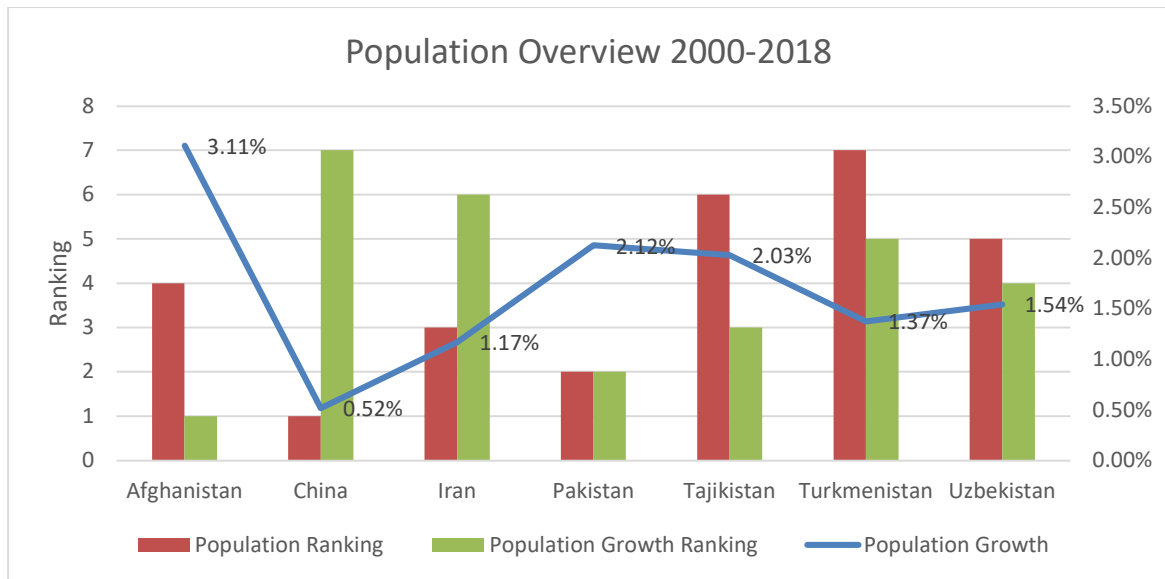
6.1.73 *Figure 2.37: Overview of Afghanistan's Population*

Source: World Bank, 2020c analysed by the author
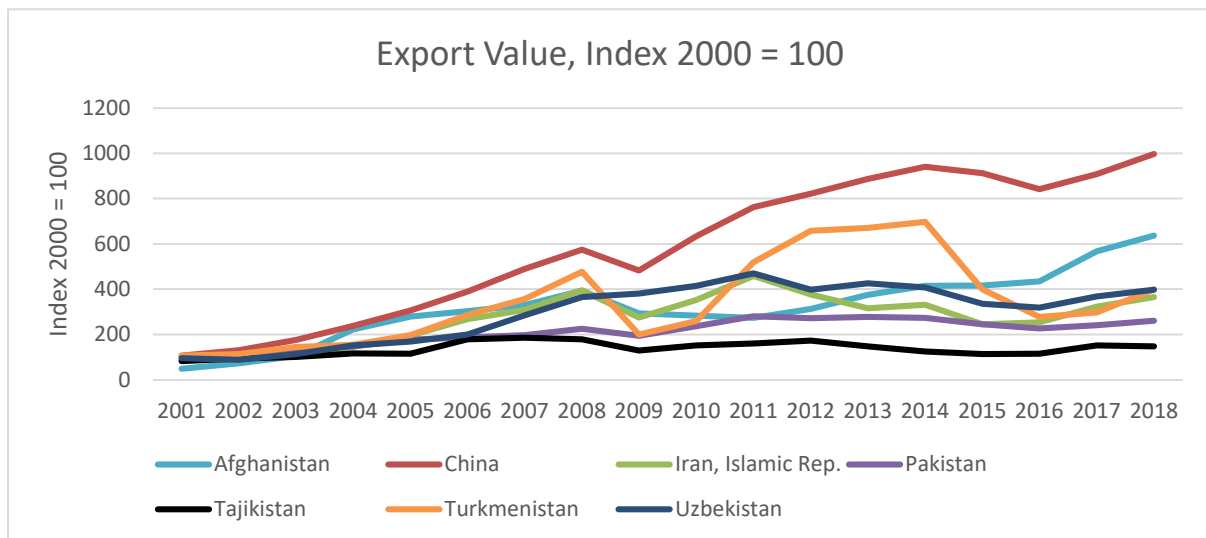
6.1.74 **Figure 2.38a: Export Value of Afghanistan and its Neighbours 2002-2018**

Source: World Bank, 2020c analysed by the author

18 Year Period Annual Growth and Ranking on Export Value 2002-2018
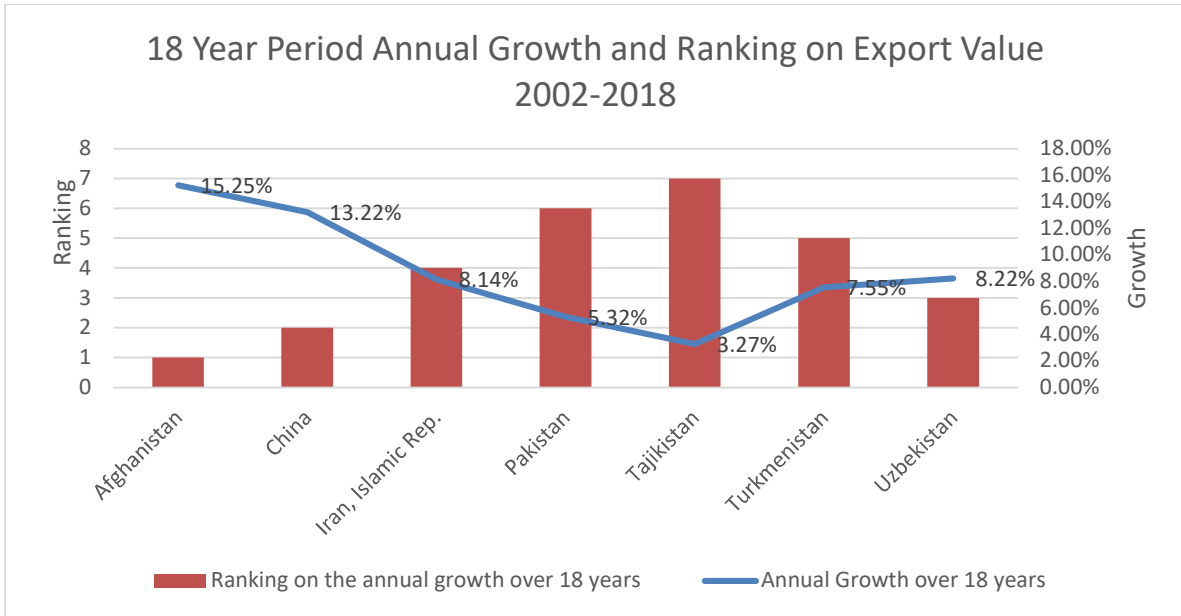
6.1.75 Figure 2.38b: Comparative 18 Year Growth and Ranking on Export Value of AFG

Source: World Bank, 2020c analysed by the author

Import value index (2000 = 100)
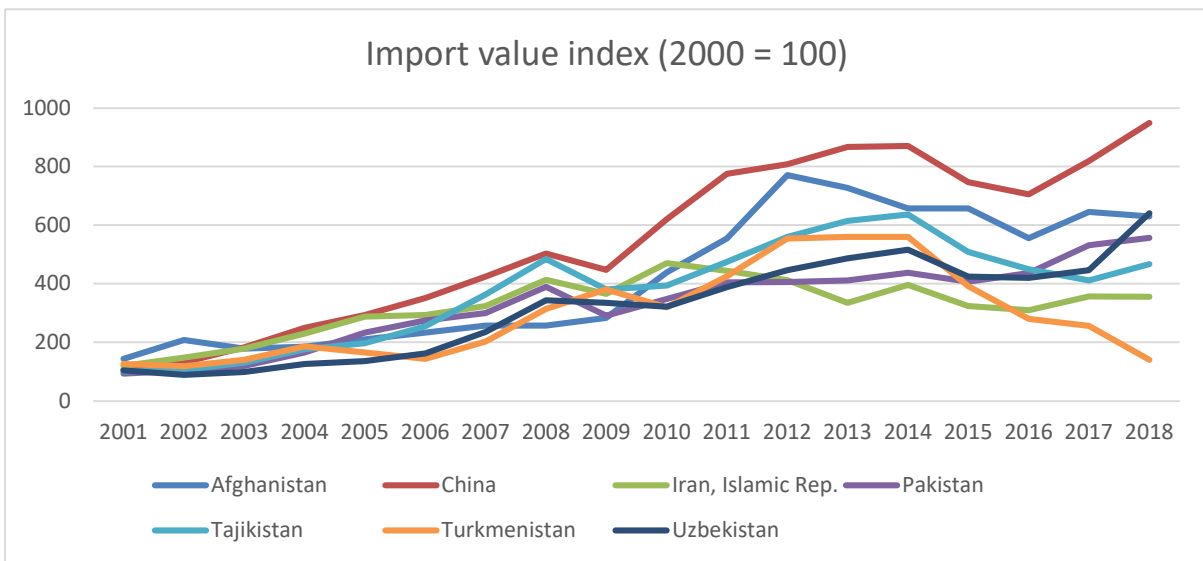
6.1.76 Figure 2.38c: Import Value of Afghanistan and its Neighbours 2002-2018

Source: World Bank, 2020c analysed by the author
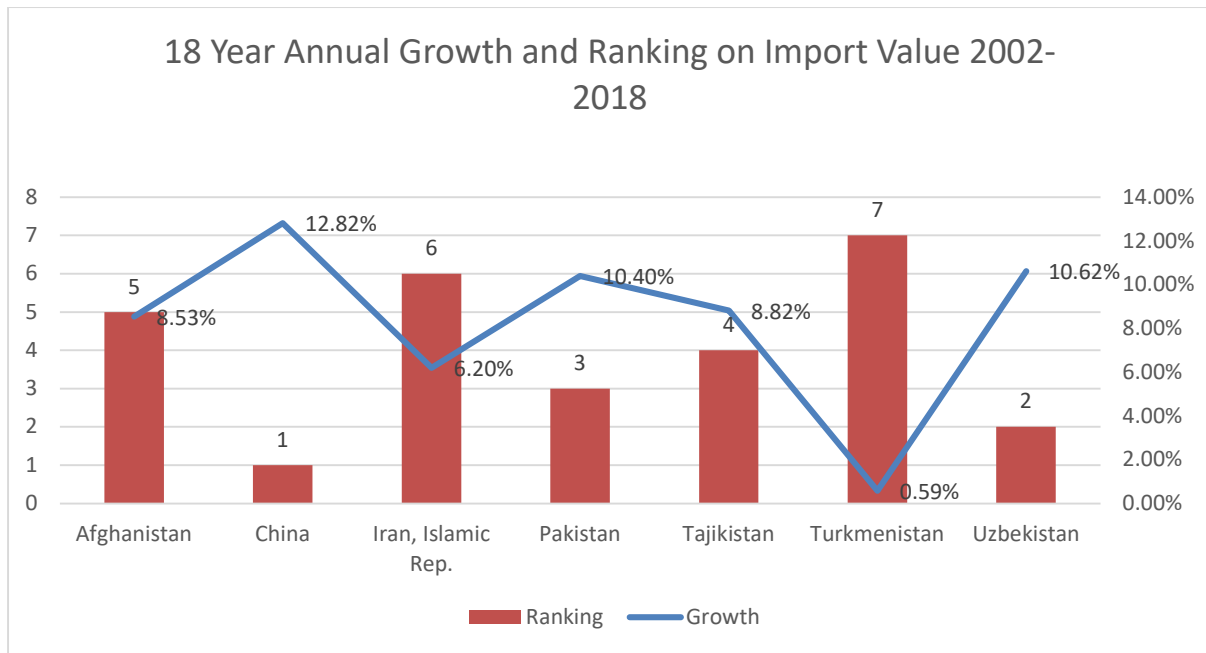
6.1.77 Figure 2.38d: Comparative 18 Year Growth and Ranking on Import Value of AFG

Source: World Bank, 2020c analysed by the author
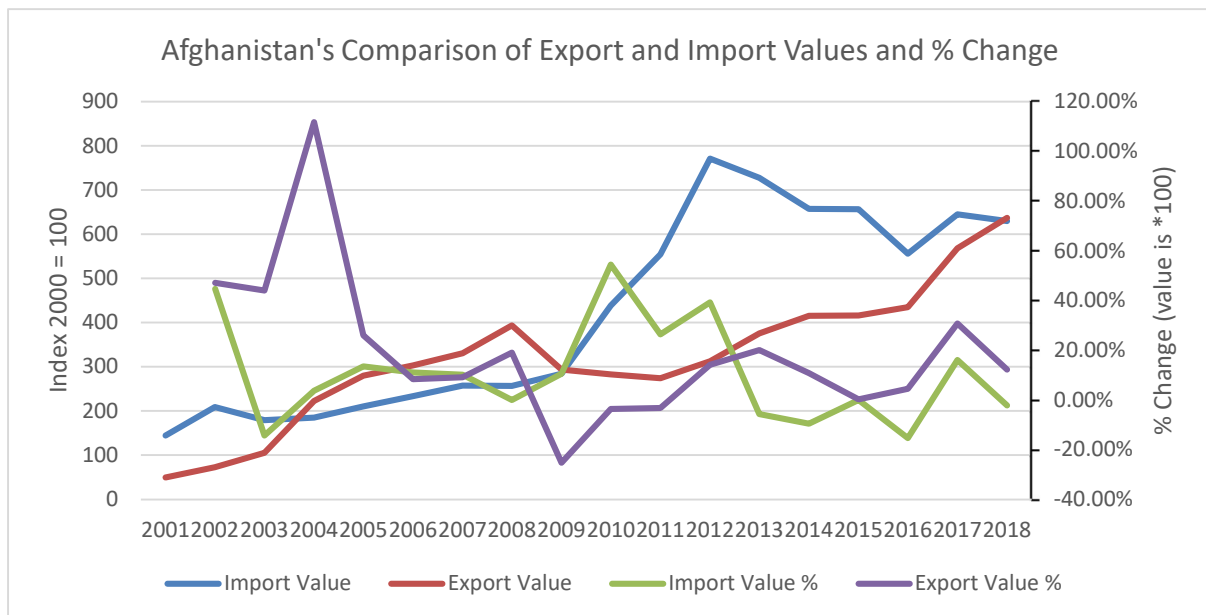
6.1.78 Figure 2.38e: Overview of Afghanistan's Export and Import Values and % Change

Source: World Bank, 2020c analysed by the author
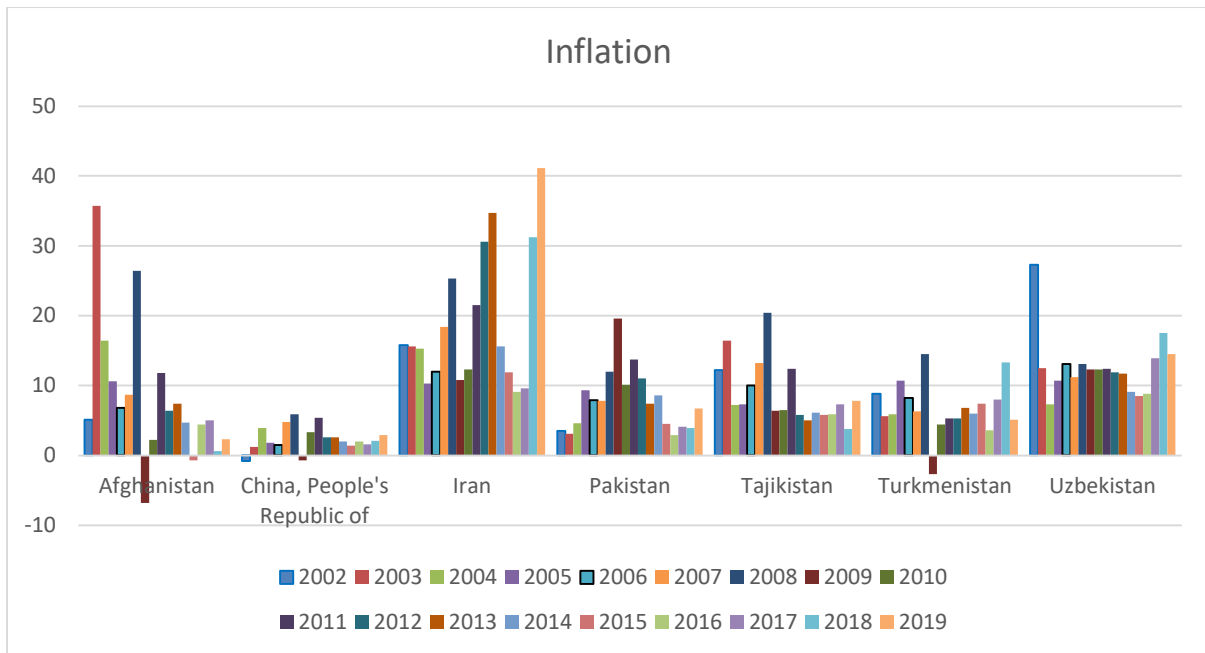
6.1.79 Figure 2.39: Comparison Inflation Rate of Afghanistan and its Peer Neighbours

Source: IMF, 2020b analysed by the author

6.1.80 Figure 2.40a: Overview of Afghanistan Exports and Imports 1946-2019

Source: United Nations Comtrade Database, 2020 analysed by the author
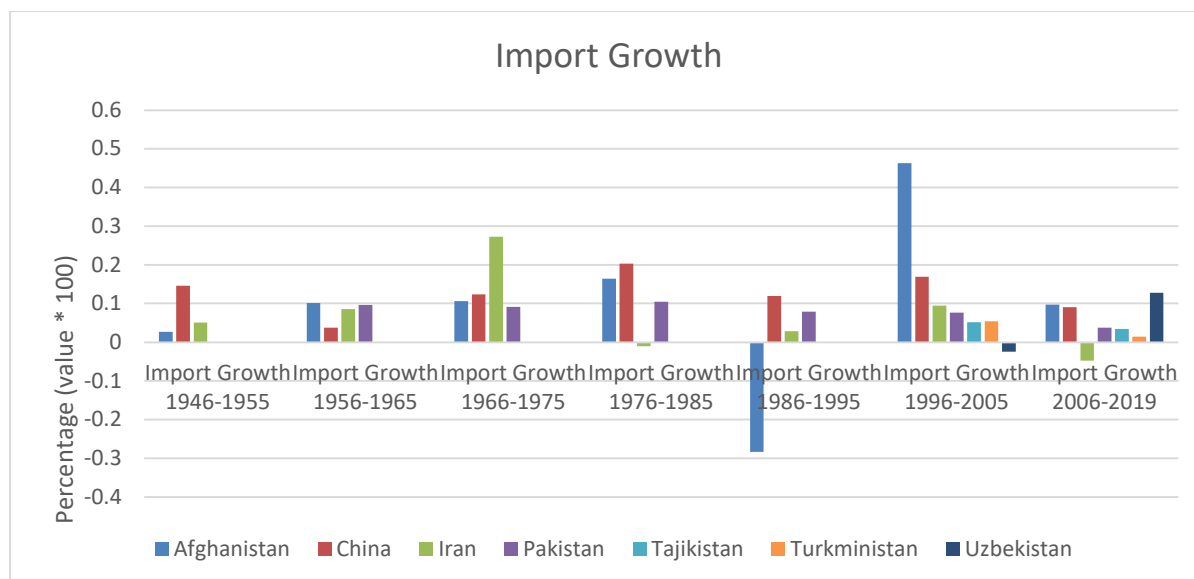
6.1.81 Figure 2.40b: Afghanistan's Comparative Imports Growth

Source: United Nations Comtrade Database, 2020 analysed by the author
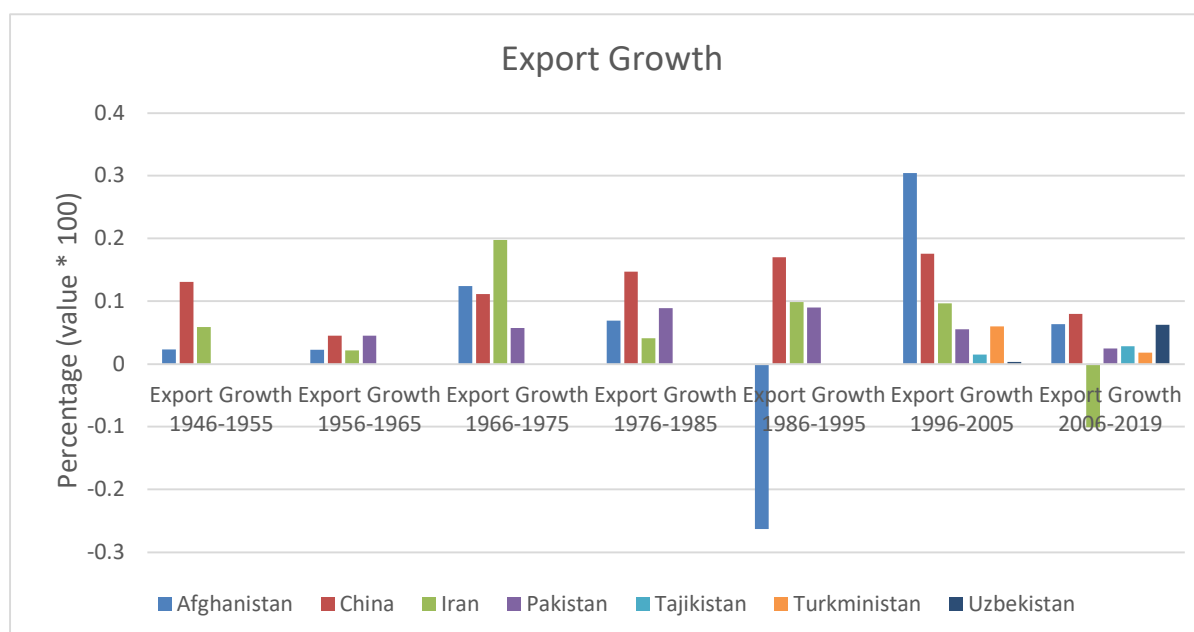
6.1.82 Figure 2.40c: Comparative Afghanistan's Export Annual Growth

Source: United Nations Comtrade Database, 2020 analysed by the author
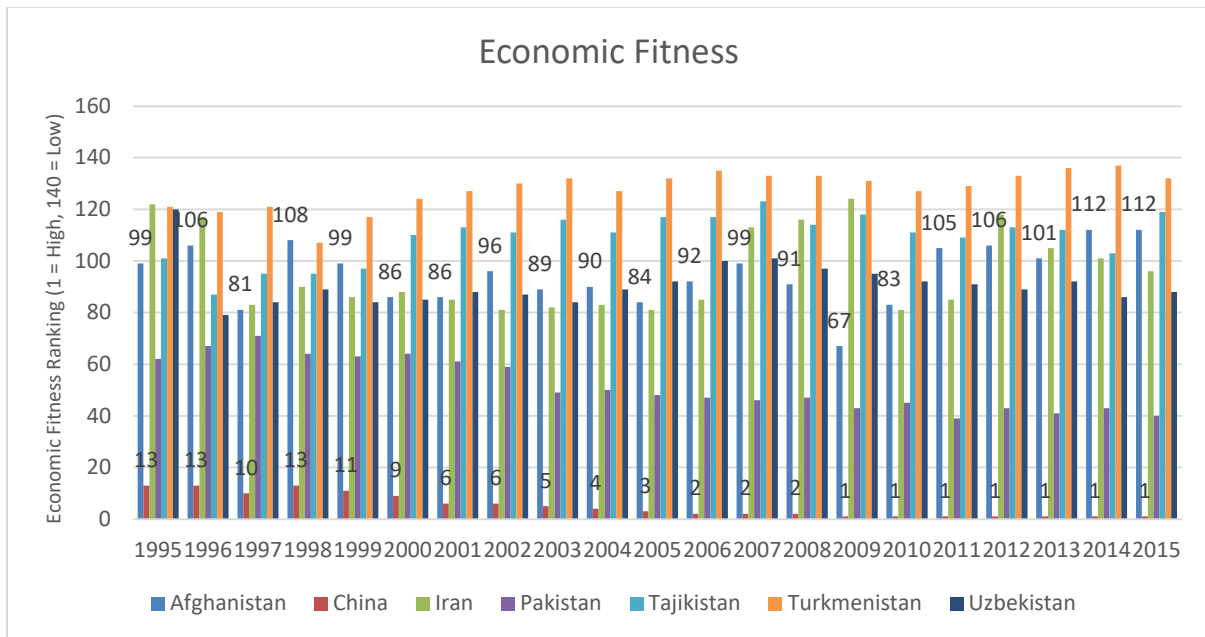
6.1.83 Figure 2.41: Comparative Overview of Afghanistan's Economic Fitness
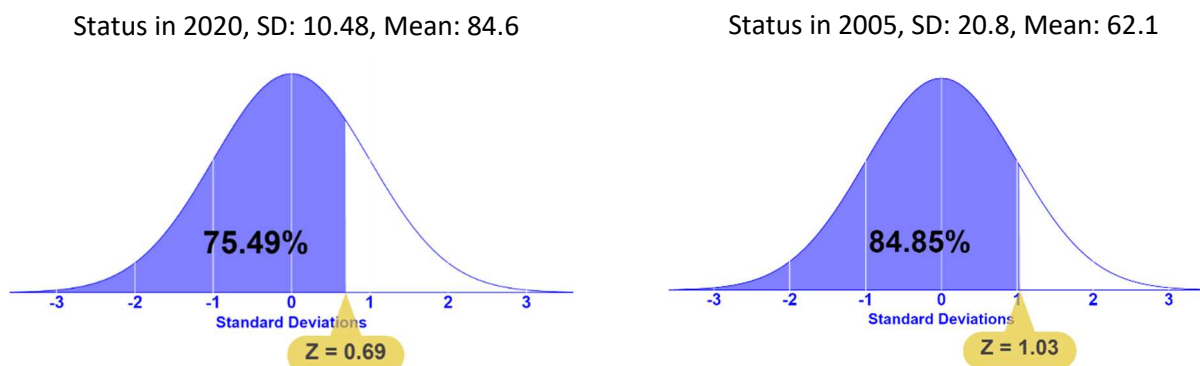
Source: World Bank, 2020d analysed by the author
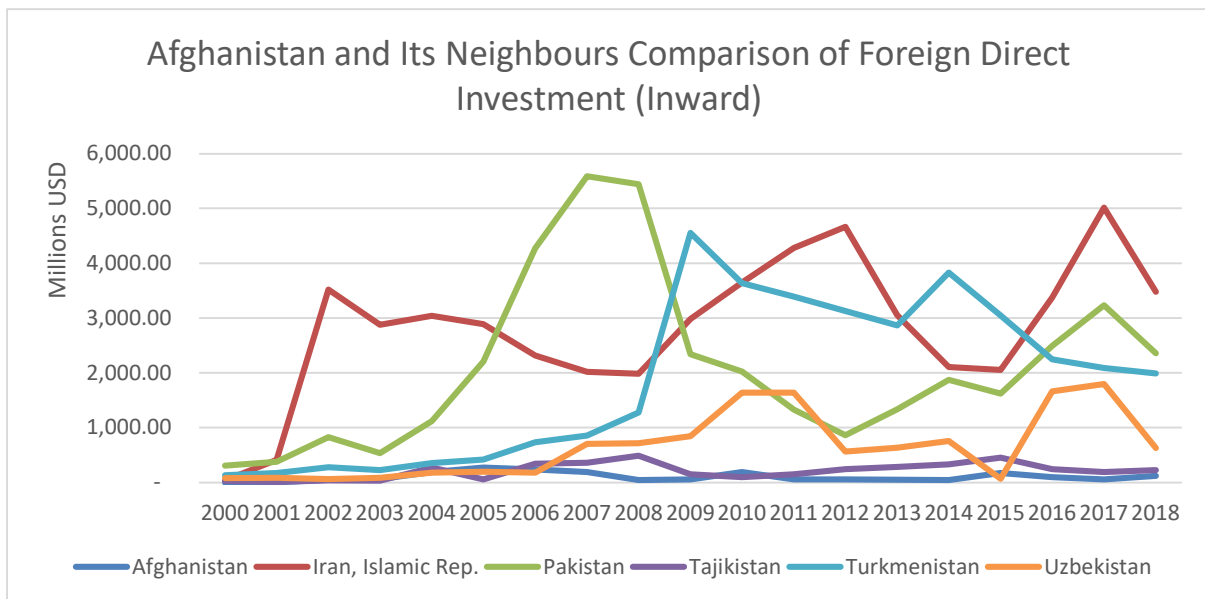
6.1.84 Figure 2.42a: Comparative Afghanistan's Foreign Direct Investment inward

Source: World Bank, 2019b analysed by the author
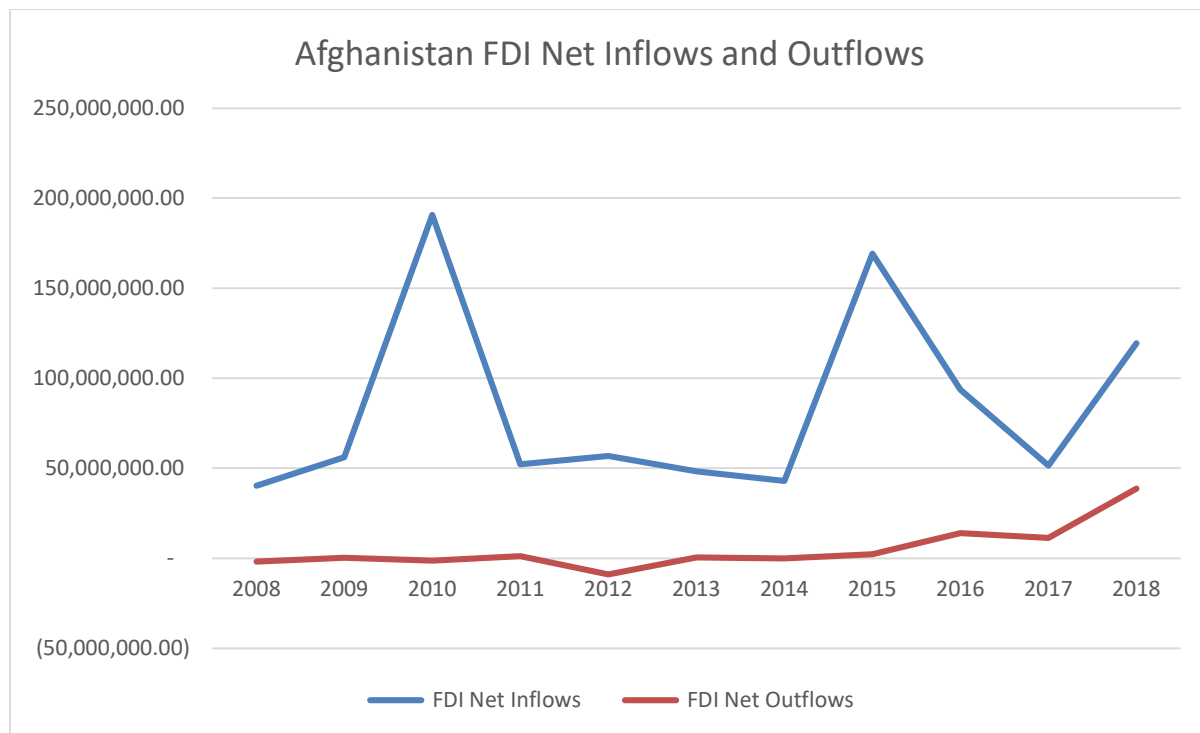
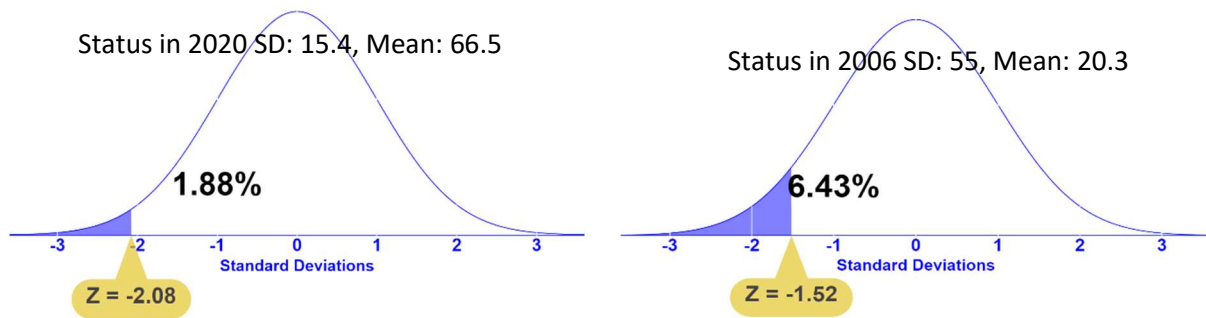**6.1.85 Figure 2.42b: Afghanistan's Foreign Direct Investment Net Inflows and Outflows**

Source: World Bank, 2019b analysed by the author

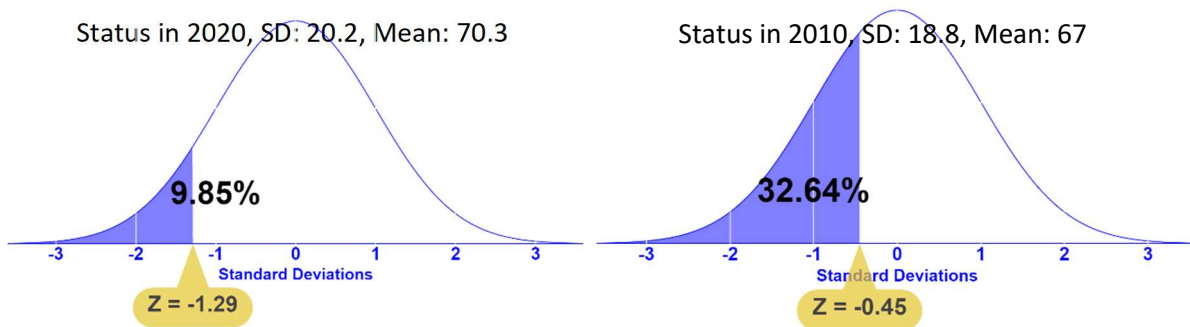
6.1.86 Figure 2.43a: Comparative Analysis of Starting a new business in Afghanistan
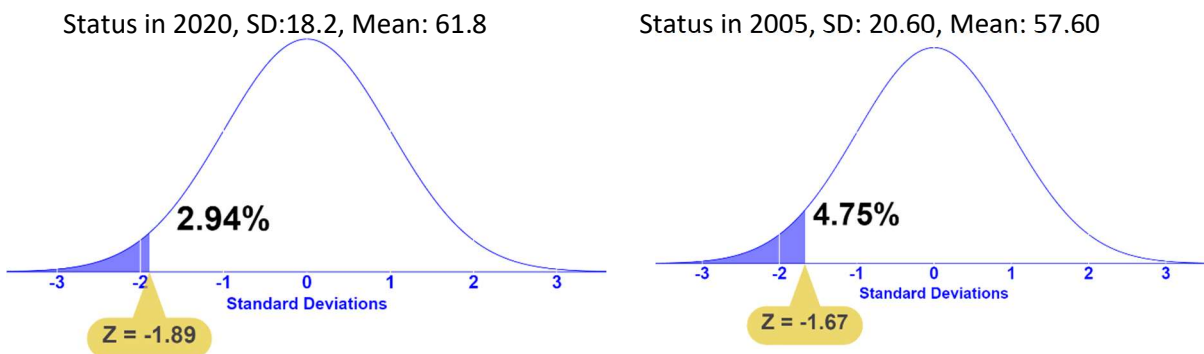
Source: World Bank, 2020i analysed by the author

Status in 2020 SD: 15.4, Mean: 66.5

1.88%

Standard Deviations

Z = -2.08

Status in 2006 SD: 55, Mean: 20.3

6.43%

Standard Deviations

Z = -1.52

6.1.87 Figure 2.43b: Comparative Analysis of Dealing with Construction Permit in AFG
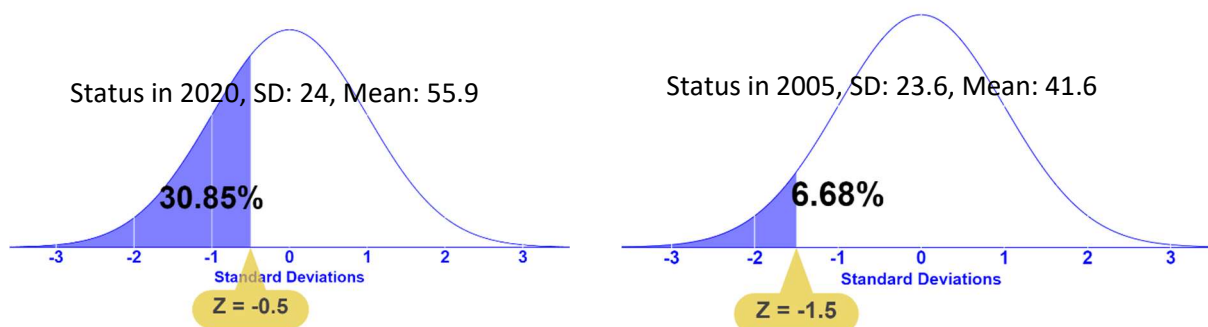
Source: World Bank, 2020i analysed by the author

Status in 2020, SD: 20.2, Mean: 70.3

9.85%

Standard Deviations

Z = -1.29

Status in 2010, SD: 18.8, Mean: 67

32.64%

Standard Deviations

Z = -0.45

6.1.88 Figure 2.43c: Comparative Analysis of Getting Electricity in Afghanistan

Source: World Bank, 2020i analysed by the author

Status in 2020, SD:18.2, Mean: 61.8

2.94%

Standard Deviations

Z = -1.89

Status in 2005, SD: 20.60, Mean: 57.60

4.75%

Standard Deviations

Z = -1.67

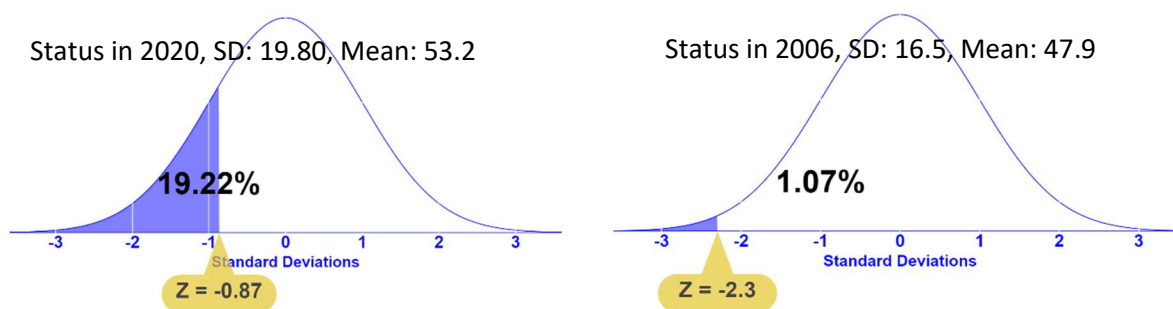### 6.1.89 Figure 2.43d: Comparative Analysis of Property Registration in Afghanistan

Source: World Bank, 2020i analysed by the author

Status in 2020, SD: 24, Mean: 55.9

30.85%

Z = -0.5

Status in 2005, SD: 23.6, Mean: 41.6

6.68%

Z = -1.5

6.1.90 Figure: 2.43e: Comparative Analysis of Access to Credit in Afghanistan

Source: World Bank, 2020i analysed by the author

Status in 2020, SD: 19.80, Mean: 53.2

19.22%

Z = -0.87

Status in 2006, SD: 16.5, Mean: 47.9

1.07%

Z = -2.3

6.1.91 Figure 2.43f: Comparative Analysis of Protecting Minority Investors in Afghanistan

Source: World Bank, 2020i analysed by the author

Status in 2020, SD: 16.9, Mean: 69.1

5.59%

Z = -1.59

Status in 2006, SD: 20.7, Mean: 59.80

79.1%

Z = 0.81
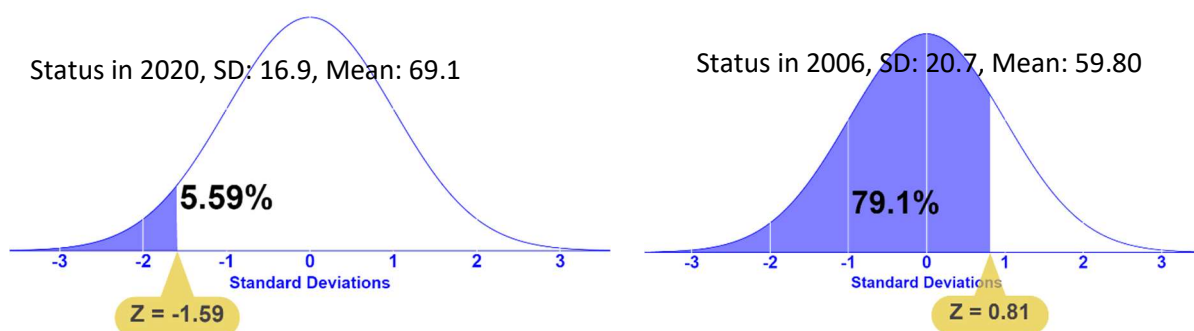
6.1.92 Figure 2.43g: Comparative Analysis of Paying Taxes in Afghanistan

Source: World Bank, 2020i analysed by the author

Status in 2006, SD: 24.2, Mean: 56.6

Status in 2020, SD: 22.2, Mean: 71.2

3.51%

Z = -1.81

4.75%

Z = -1.67
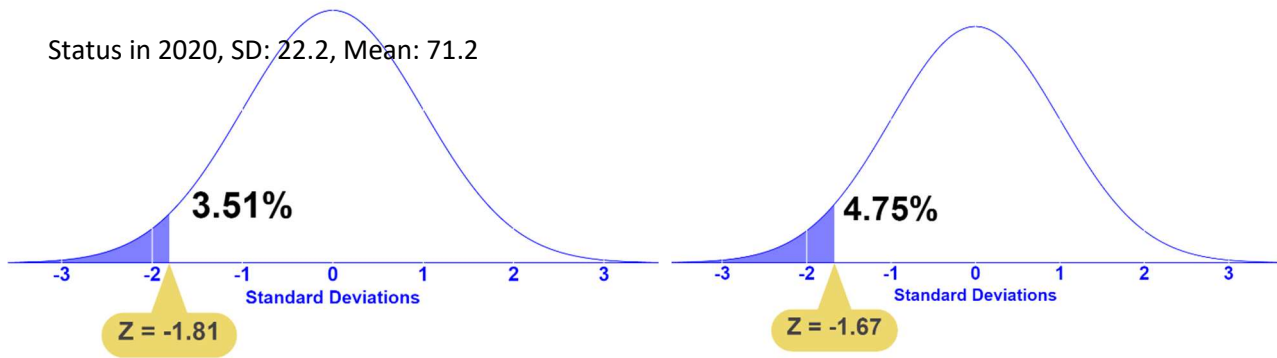
6.1.93 Figure 2.43h: Comparative Analysis of Trading Across Borders, Afghanistan

Source: World Bank, 2020i analysed by the author

Status in 2020, SD: 13.8, Mean: 56.6

Status in 2005: SD: 14.6, Mean: 56.4

3.59%

Z = -1.8

2.94%

Z = -1.89
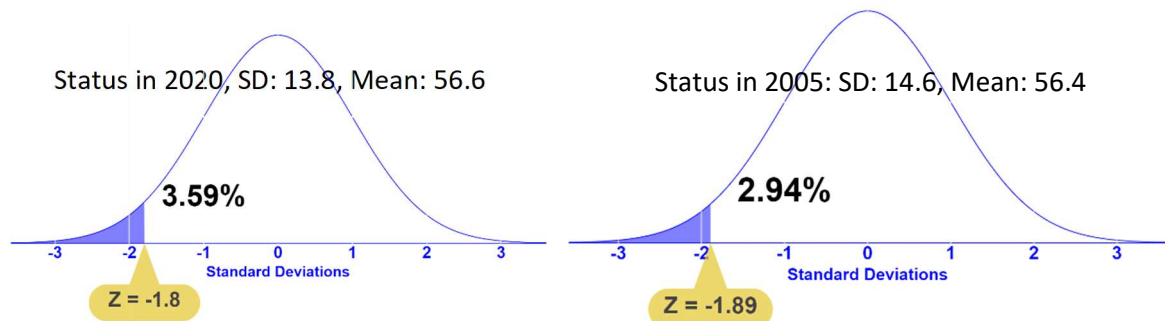
6.1.94 Figure 2.43i: Comparative Enforcing Contracts in Afghanistan

Source: World Bank, 2020i analysed by the author

Status in 2020, SD: 24.2, Mean: 47

Status in 2005, SD: 22.7, Mean: 38.7

57.93%

Z = 0.2

4.46%

Z = -1.7
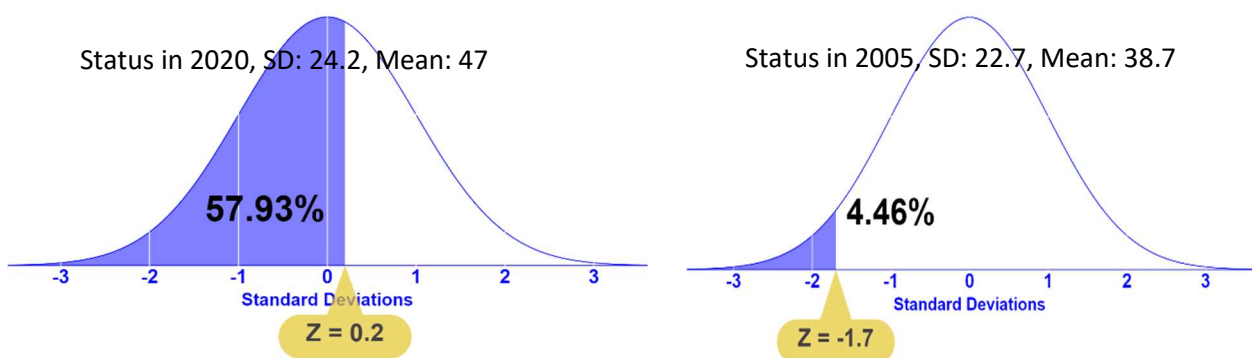
6.1.95 Figure 2.43j: Comparative Analysis of Revolving Insolvency in Afghanistan

Source: World Bank, 2020i analysed by the author

| Z-Scores for Afghanistan versus the Rest of the Economies Across the World from 2005-2020																
Column1	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Start a new business	0.69	0.77	0.03	0.73	0.80	0.87	0.96	0.78	0.77	0.81	0.81	0.71	0.68	0.96	0.97	1.03
Dealing with construction permits	-2.08	-2.00	-1.87	-1.84	-1.81	-1.95	-2.05	-2.07	-2.02	-2.01	-1.93	-1.84	-1.68	-1.61	-1.52	
Getting electricity	-1.29	-1.19	-1.07	-0.99	-0.95	-1.00	-0.60	-0.59	-0.60	-1.63	-0.45					
Registering property	-1.89	-1.87	-1.83	-1.79	-1.78	-1.71	-1.68	-1.64	-1.69	-1.64	-1.39	-1.70	-1.55	-1.78	-1.73	-1.67
Getting credit	-0.25	-0.16	-0.31	-0.20	-0.13	-0.05	-0.04	-0.70	-0.70	-0.54	-0.50	-1.69	-1.59	-1.57	-1.51	-1.50
Protecting minority investors	-0.87	-0.85	-2.15	-2.14	-2.15	-2.19	-2.11	-2.53	-2.55	-2.49	-2.45	-2.42	-2.37	-2.33	-2.30	
Paying taxes	-1.59	-1.49	-1.55	-0.91	-0.60	-0.35	-0.40	-0.38	-0.42	-0.47	-0.51	-0.58	-0.64	-0.77	-0.81	
Trading across borders	-1.83	-1.81	-1.73	-1.69	-1.75	-1.74	-2.77	-2.33	-2.43	-2.42	-2.10	-1.84	-1.82	-1.71	-1.67	
Enforcing contracts	-1.80	-1.78	-1.74	-1.73	-1.71	-1.83	-1.82	-1.90	-1.91	-1.91	-1.92	-1.89	-1.89	-1.87	-1.85	-1.89
Resolving insolvency	0.20	0.23	-0.91	-0.86	-0.85	-0.86	-0.84	-0.77	-0.80	-0.78	-0.81	-0.80	-0.75	-1.73	-1.64	-1.70

6.1.96 Figure 2.43k: Comparative Z-Score of Doing Business in Afghanistan 2005-2020

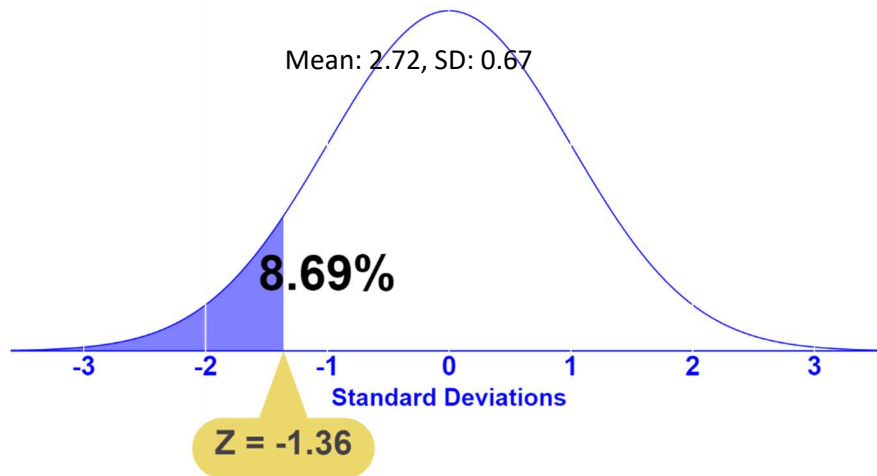Source: World Bank, 2020i analysed by the author

6.1.97 Figure 2.44a: Comparative Logistics performance index of Afghanistan 2018
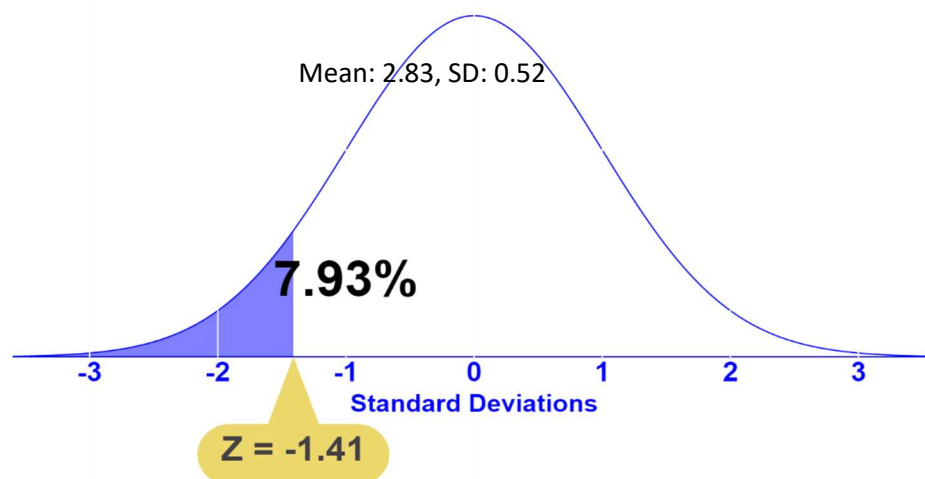
Source: World Bank, 2018e analysed by the author
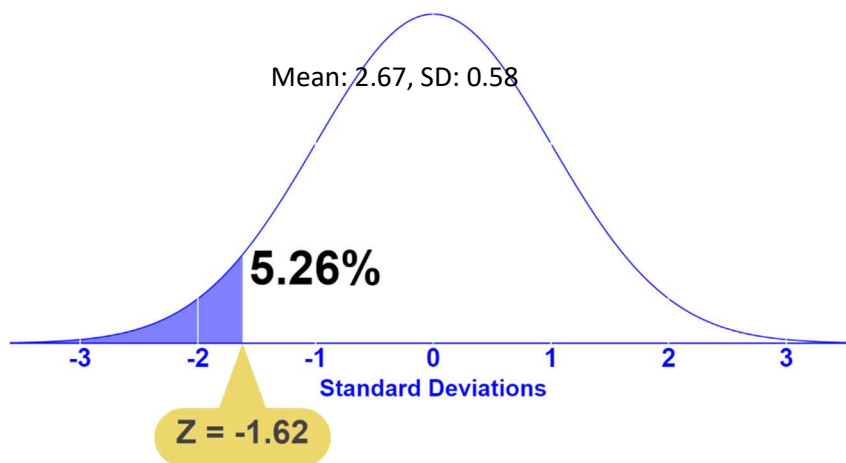
6.1.98 Figure 2.44b: Comparative Custom Performance of Afghanistan in 2018

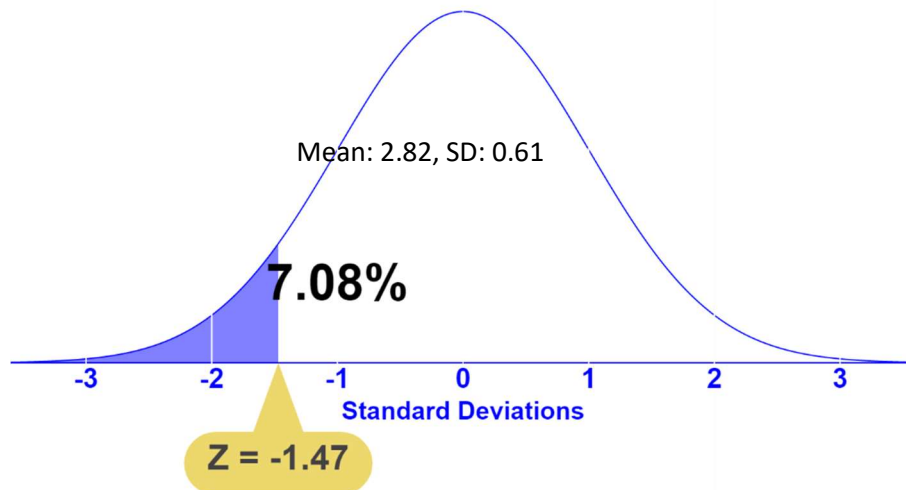Source: World Bank, 2018e analysed by the author

Mean: 2.72, SD: 0.67

8.69%

Z = -1.36

6.1.99 Figure 2.44c: Comparative Infrastructure Performance in Afghanistan 2018

Source: World Bank, 2018e analysed by the author
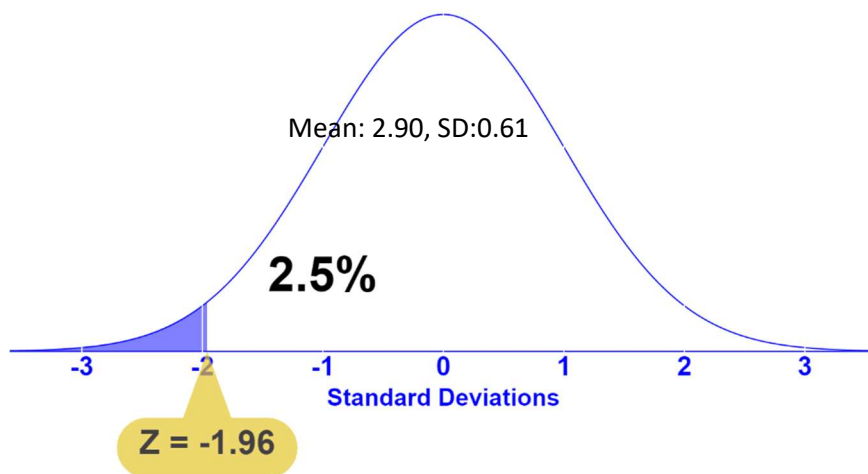

Mean: 2.83, SD: 0.52

7.93%

Z = -1.41

6.1.100 Figure 2.44d: Comparative International Shipment Performance in Afghanistan 2018
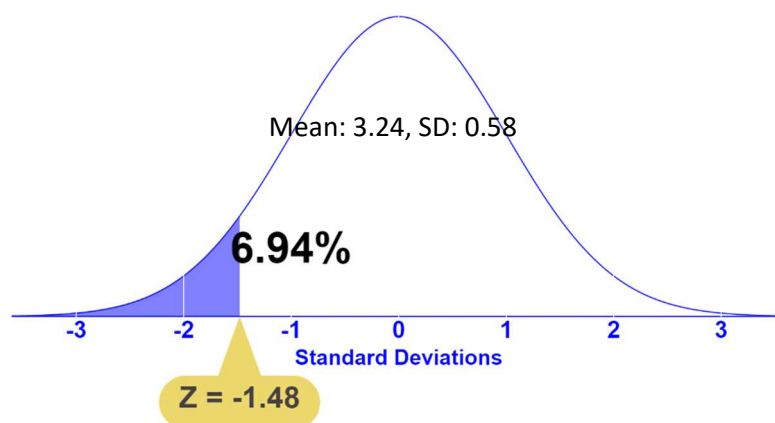
Source: World Bank, 2018e analysed by the author

Mean: 2.82, SD: 0.61

7.08%

Z = -1.47

6.1.101 Figure 2.44e: Comparative Logistic Quality & Competence Afghanistan 2018

Source: World Bank, 2018e analysed by the author

Mean: 2.90, SD:0.61
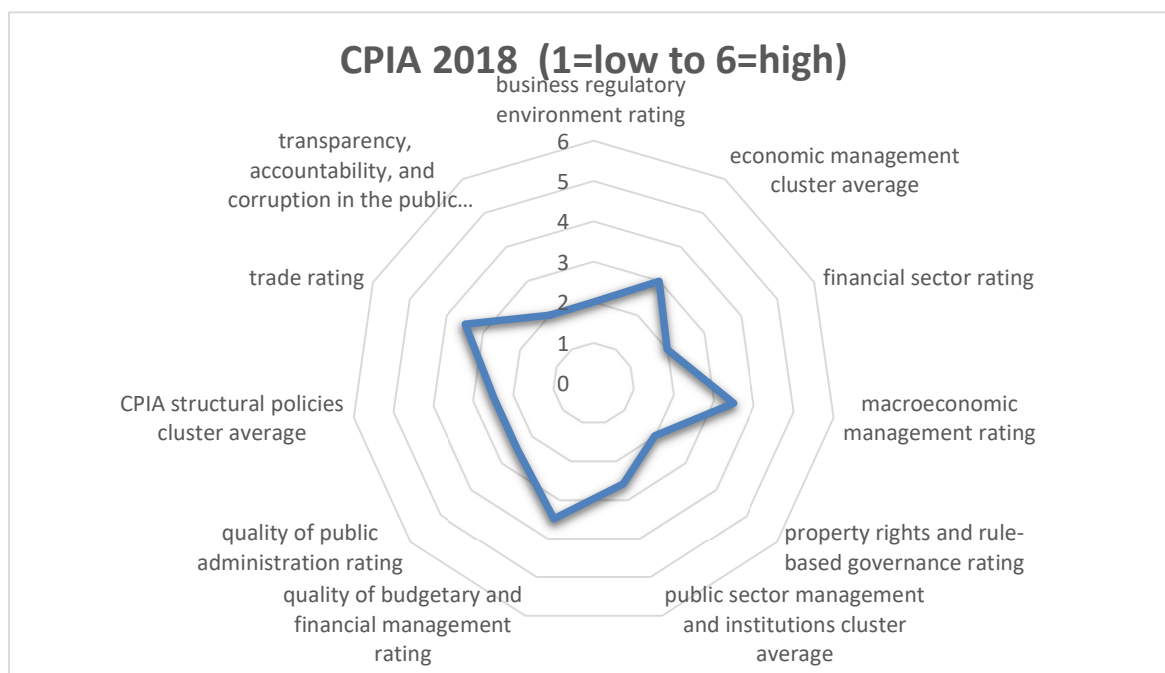
2.5%

Z = -1.96

6.1.102 Figure 2.44f: Comparative Performance of Tracking/Tracing Afghanistan 2018

Source: World Bank, 2018e analysed by the author

6.1.103   Figure 2.44g: Comparative Timeliness Performance of Afghanistan 2018

Source: World Bank, 2018e analysed by the author


6.1.104   Figure 2.45a: AFG Country Policy & Inst. Assessment Performance 2018

Source: World Bank, 2019g, analysed by the author

| Afghanistan's Country Policy and Institutional Assessment													
Indicator Name	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
business regulatory environment rating	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2	2
economic management cluster average	3.3	3.2	3.2	3.3	3	3	3	3	3	3	3	3	3
financial sector rating	2	2	2.5	2.5	2	2	2	2	2	2	2	2	2
macroeconomic management rating	4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
property rights and rule-based governance rating	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2	2	2
public sector management and institutions cluster average	2.3	2.2	2.2	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6
quality of budgetary and financial management rating	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
quality of public administration rating	2	2	2	2	2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
CPIA structural policies cluster average	2.5	2.3	2.5	2.7	2.5	2.5	2.5	2.5	2.5	2.67	2.67	2.5	2.5
trade rating	3	2.5	2.5	3	3	3	3	3	3	3.5	3.5	3.5	3.5
transparency, accountability, and corruption in the public sector rating	2.5	2	2	2	2	2	2	2	2	2	2	2	2
(1=low to 6=high)													

6.1.105   Figure 2.45b: Afghanistan Country Policy and Institutional Assessment Performance 2006-2018

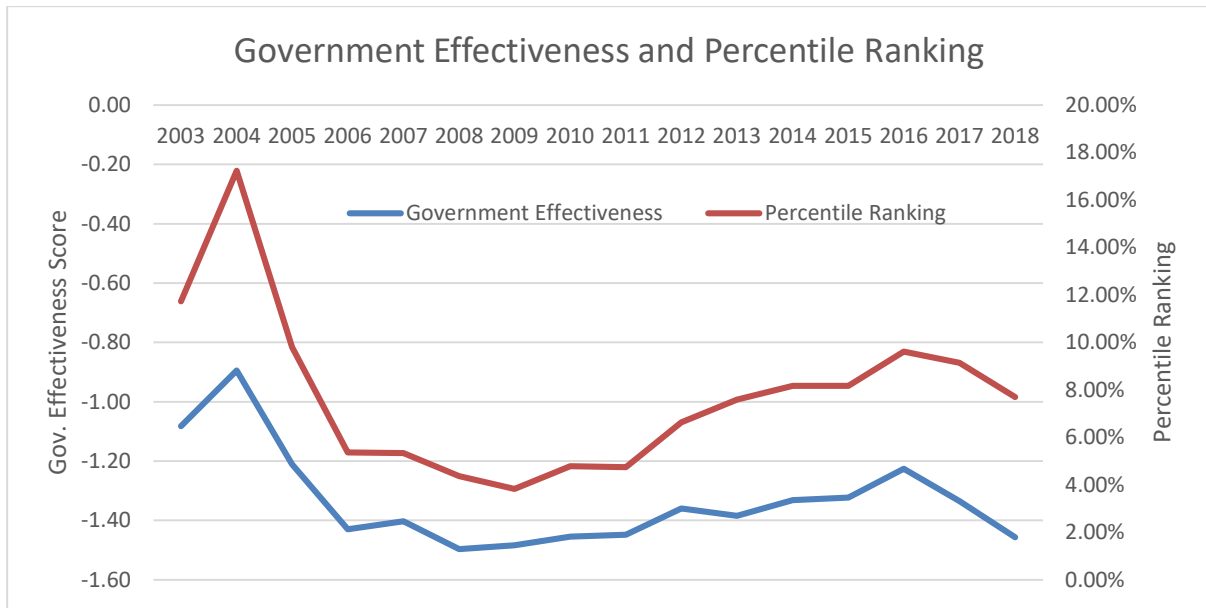Source: World Bank, 2019g
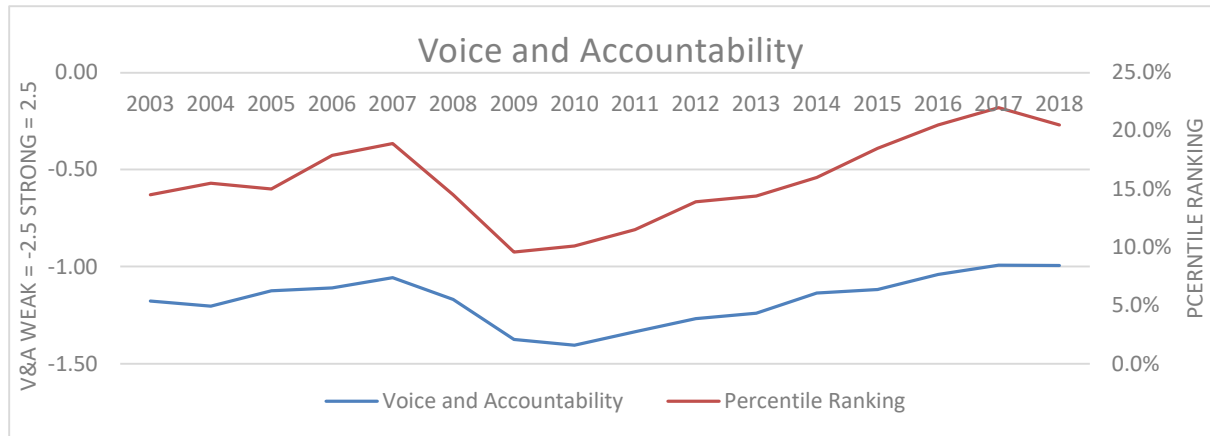
6.1.106   Figure 2.46a: Afghanistan Voice and Accountability Performance 2003-2018

Source: World Bank, 2018f
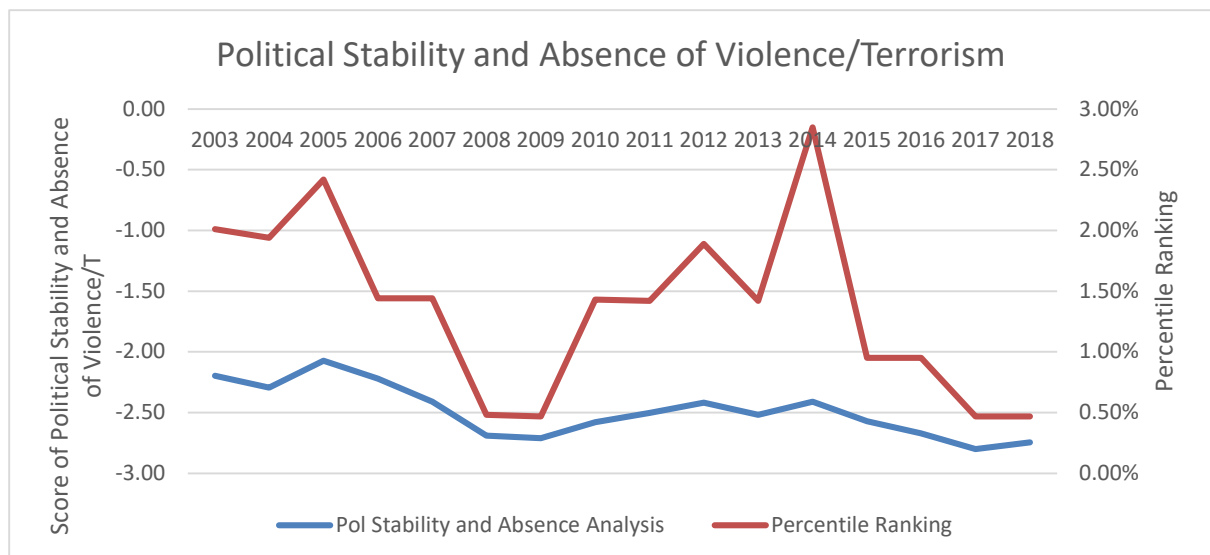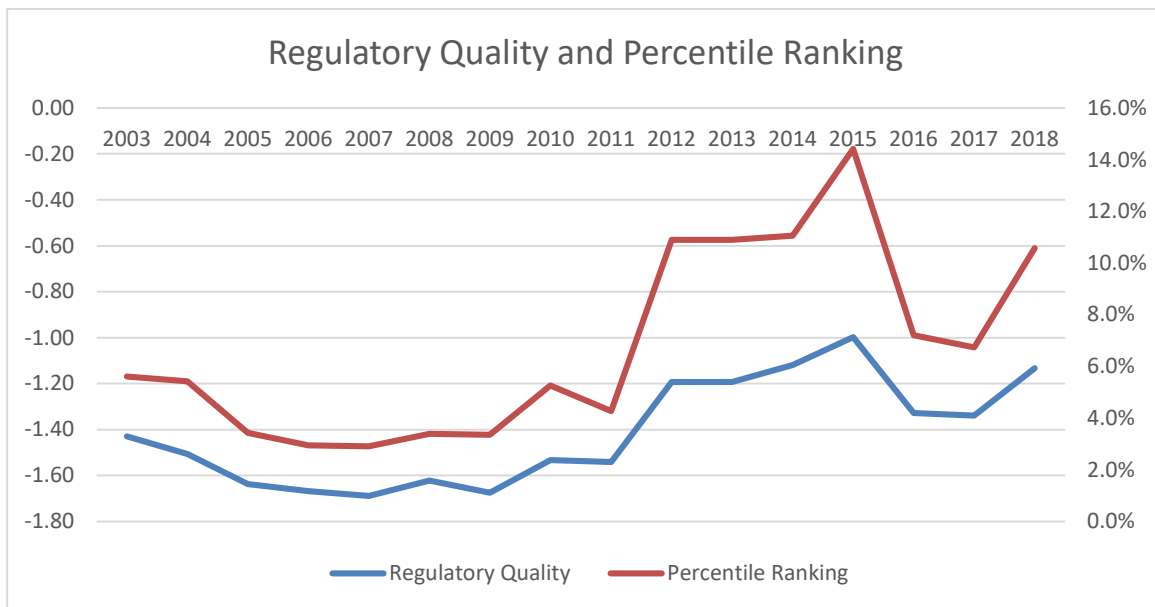

6.1.107   Figure 2.46b: Afghanistan Political Stability/Absence of Violence/Terrorism
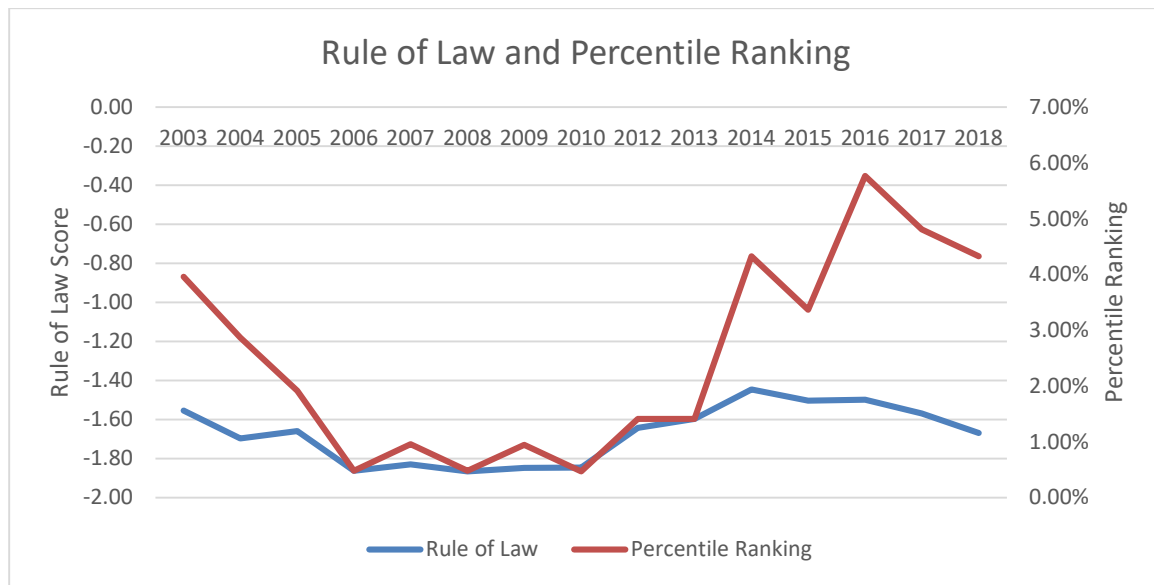
Source: World Bank, 2018f

6.1.108   Figure 2.46c: Afghanistan Government Effectiveness Performance 2003-2018
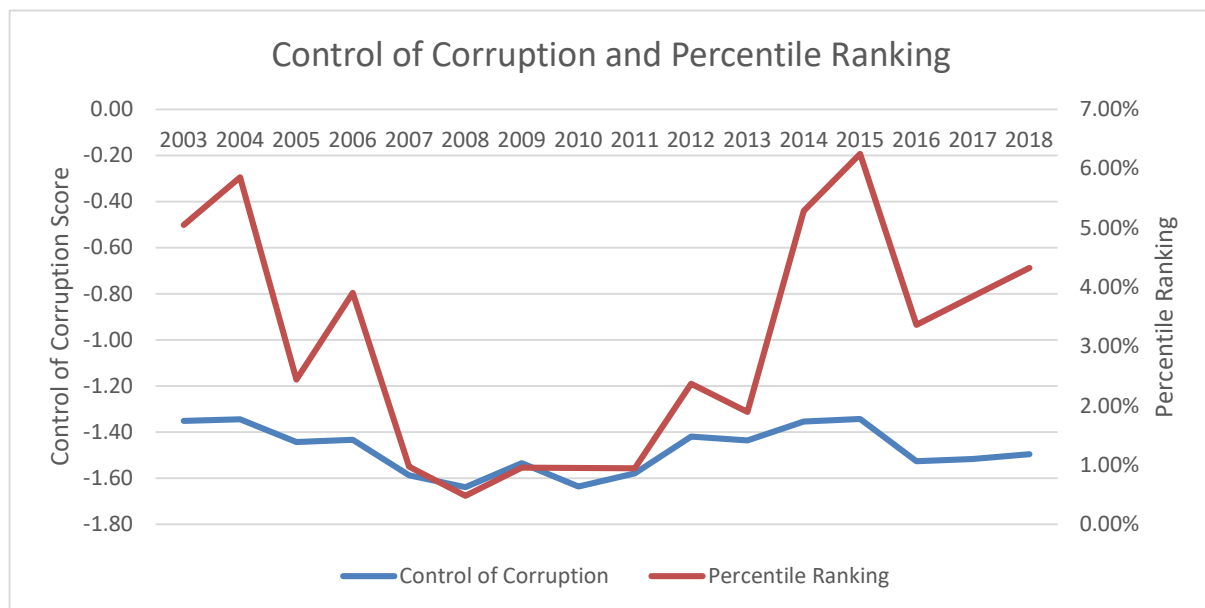
Source: World Bank, 2018f

6.1.109   Figure 2.46d: Afghanistan Regulatory Quality Performance 2003-2018

Source: World Bank, 2018f

6.1.110 **Figure 2.46e: Afghanistan Rule of Law Performance 2003-2018**

Source: World Bank, 2018f

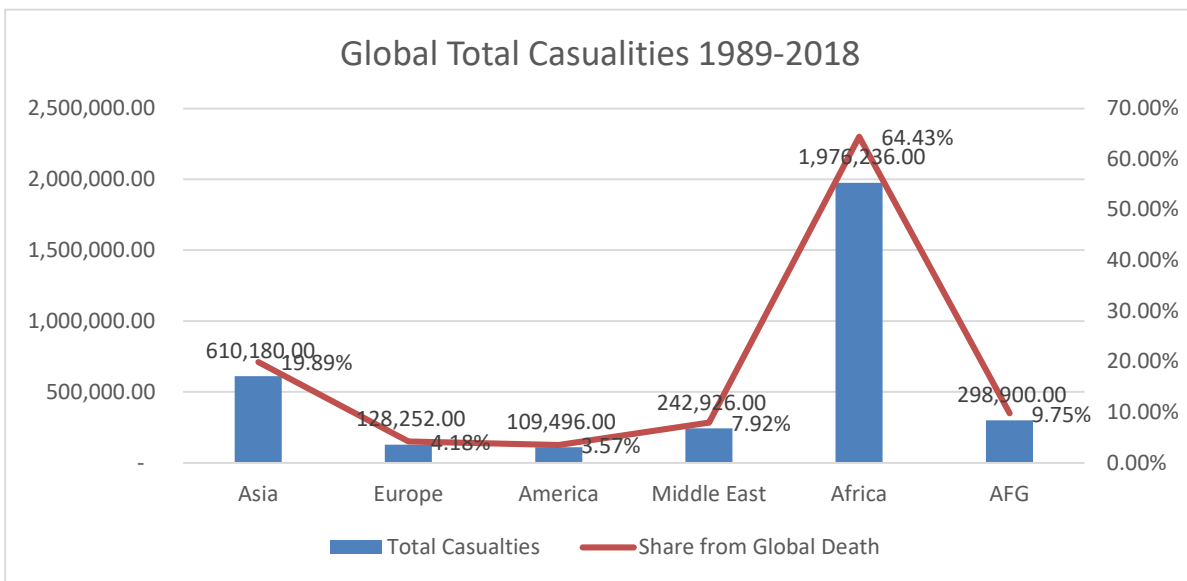**6.1.111** **Figure 2.46f: Afghanistan's Control of Corruption Performance 2003-2018**

Source: World Bank, 2018f
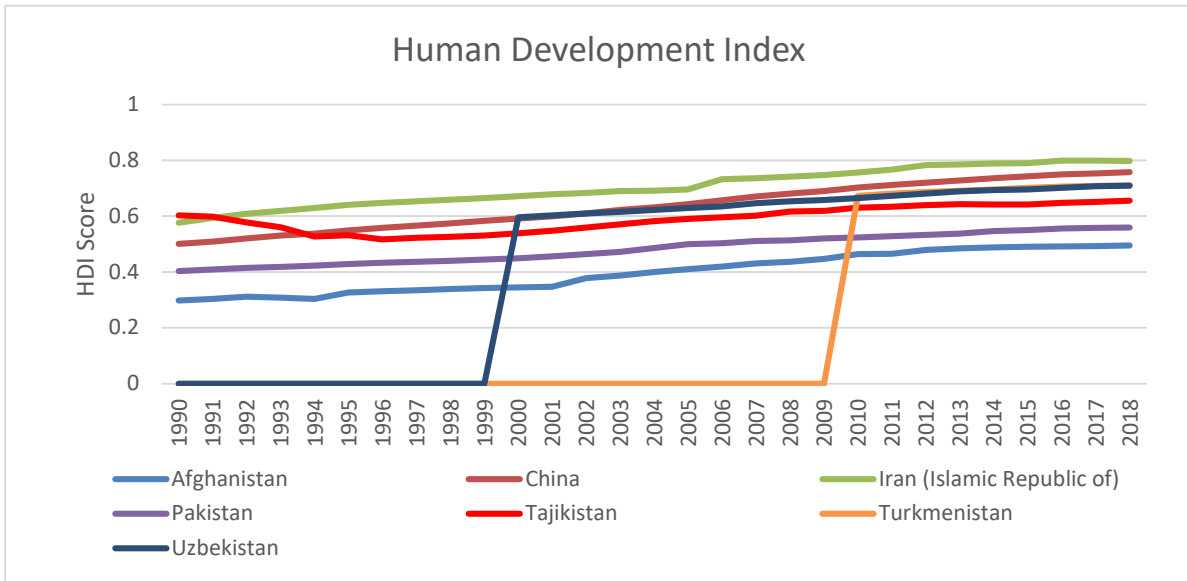
6.1.112   Figure 2.51g: Comparative Performance on Human Development Index

Source: UNDP 2018, analyzed by the author

6.1.113   Figure 2.53c: Global Total Causalities from Structured Events 1989-2018

Source: UCDP, 2018, analysed by the author

Year	AFG, Share of the World	AFG, share of Asia	Asia	Europe	America	Middle East	Africa	Total # of Events
1989	6.09%	20.00%	30.47%	2.65%	18.03%	13.96%	34.89%	2379
1990	1.48%	4.72%	31.41%	2.37%	15.64%	7.77%	42.81%	3037
1991	2.27%	7.57%	30.06%	13.11%	13.54%	11.12%	32.16%	2814
1992	2.10%	10.53%	19.91%	25.04%	10.31%	13.62%	31.11%	3626
1993	2.79%	14.72%	18.91%	22.16%	6.18%	17.41%	35.34%	4129
1994	5.76%	28.74%	20.05%	13.18%	5.10%	21.37%	40.31%	4235
1995	5.65%	21.35%	26.48%	19.07%	5.63%	20.57%	28.26%	3875
1996	8.23%	25.27%	32.57%	5.63%	9.07%	19.24%	33.49%	2843
1997	7.88%	22.09%	35.67%	1.31%	8.83%	16.35%	37.85%	2526
1998	6.08%	17.60%	34.52%	6.72%	5.24%	8.79%	44.74%	3572
1999	4.69%	11.14%	42.04%	10.39%	6.97%	7.91%	32.70%	4034
2000	4.78%	8.60%	55.55%	4.61%	9.43%	3.37%	27.04%	4335
2001	8.51%	18.51%	45.97%	7.47%	14.07%	7.25%	25.23%	3091
2002	1.61%	2.90%	55.43%	6.80%	9.62%	6.80%	21.35%	5851
2003	4.49%	7.78%	57.76%	1.86%	7.34%	7.12%	25.91%	4141
2004	3.90%	7.49%	52.04%	4.39%	12.69%	12.54%	18.35%	6180
2005	8.00%	15.04%	53.18%	5.06%	11.33%	15.44%	14.99%	5376
2006	16.20%	27.84%	58.21%	3.11%	3.54%	20.33%	14.81%	5233
2007	19.14%	33.13%	57.77%	2.88%	5.62%	15.54%	18.19%	5444
2008	18.37%	27.98%	65.66%	3.51%	3.32%	11.46%	16.05%	6063
2009	22.85%	37.74%	60.55%	4.90%	5.06%	8.44%	21.05%	6626
2010	30.06%	45.95%	65.41%	4.38%	6.39%	9.02%	14.80%	6008
2011	33.43%	57.79%	57.85%	4.02%	5.13%	9.14%	23.86%	6572
2012	35.69%	62.11%	57.46%	3.73%	3.70%	10.48%	24.62%	6458
2013	33.62%	63.75%	52.74%	3.32%	3.61%	12.45%	27.88%	5728
2014	28.57%	66.45%	43.00%	5.12%	3.21%	19.69%	28.98%	7416
2015	29.79%	68.38%	43.56%	4.54%	4.00%	20.14%	27.76%	7601
2016	34.47%	73.83%	46.68%	2.73%	2.97%	18.67%	28.95%	7033
2017	33.57%	72.56%	46.26%	3.25%	5.79%	14.08%	30.62%	7388
2018	41.35%	82.60%	50.06%	2.22%	8.92%	9.84%	28.96%	9002

6.1.114   Figure 2.53b: Structured Events or Organized Violence in the World 1989-2018

Source: UCDP, 2018, analysed by the author