ASSESSING MACROECONOMIC STABILITY AND LABOUR MARKET EFFICIENCY IN KOSOVO: A COMPETITIVENESS APPROACH

Diandra Nela

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Master Degree

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Prishtinë
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ASSESSING MACROECONOMIC STABILITY AND LABOUR MARKET EFFICIENCY IN KOSOVO: A COMPETITIVENESS APPROACH

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This paper has been compiled and submitted to meet the partial requirements for the Master Degree
ABSTRACT

The stability of the macroeconomic environment is important for business and for overall competitiveness of a country. Firms cannot make informed decisions when inflation is out of control. The government cannot provide services efficiently if it has to make high-interest payments on its past debts. Relatedly, the efficiency and flexibility of the labour market are critical for ensuring that workers are allocated to their most efficient production in the economy. Labour markets must have the flexibility to shift workers from one economic activity to another rapidly and at low cost to allow for wage fluctuations without social disruption. The labour market must also ensure a clear relationship between worker incentives and their efforts including equity in the business environment between women and men. The paper examines the impact of macroeconomic stability and labour market efficiency on Kosovo national economic competitiveness. The study relies on competitiveness approach and empirical analysis of static and dynamic data on macroeconomic and labour market data in Kosovo.

Keywords: macroeconomic stability, labour market efficiency, economic competitiveness.
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This whole journey wouldn’t be possible without you all helping me each and every second.

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Diandra Nela

Prishtinë, 2019
In memory of Nexhmedin Muhaxhiri

My beloved grandfather
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GLOSSARY

WEF – World Economic Forum

OECD – Organization for Economic Cooperation and Development

UNDP – United Nations Development Programme

ASK – Kosovo Agency of Statistics

GCI – Global Competitiveness Index

GDP – Gross Domestic Product

KPI – Key Performance Indicator

PPP – Purchasing Power Parity

FYROM – Former Yugoslav Republic of Macedonia

FDI – Foreign Direct Investment

R&D – Research and Development

ICT – Information and Communications Technology

STEM – Science, Technology, Engineering, Mathematics
1 INTRODUCTION

The stability of macroeconomic environment is very important for business activity, considering it is very difficult for firms to make decisions or prosper when the country cannot control macroeconomic indicators such as inflation, interest rates, government budget and debt, gross national savings, gross capital formation and cannot influence the labour force participation rate. These indicators are what drive an entire economy. Since the recent global economic and banking crisis 2008-2012, there has been an intensive scrutiny of government spending, public debt, level of interest rates as a predictor of the friendliness of the business environment. As is freshly evident from the European debt crisis, excessive government spending tend to create higher levels of insecurity for business investments. Government macroeconomic policies often have a contagious effect in capital flight and higher interest rates subsequently. Higher interest rates create enormous difficulties for businesses to access capital.

On the other hand, the importance of the efficiency and flexibility of labour market is critical to knowing whether or not workers are allocated to their most efficient use in the economic environment. Hence, there are many indicators of labour market that have an enormous impact on its efficiency and flexibility such as cooperation in labour – employer relations, flexibility of wage determination, hiring and firing practices, redundancy costs, effect of taxation on incentives to work, pay and productivity, reliance on professional management, country capacity to retain and attract talent, brain drain and female participation in the labour force. Putting this in perspective, whether you are a company, an entire industry or a whole nation, you must be competitive in national and international markets if you want to survive. On the other hand, if you want to be successful, you will have to create and maintain superior performance compared to other parallel successful companies in an environment as wild and dynamic as it is.

The economic debate on the key factors that drive countries’ prosperity and business activity has been prone to enormous debate and often fuelled by conservative academic approaches. The common economic recipe form growth during the past decade has been centered around
the neoclassical growth models. The predominant growth paradigm highlighted the importance of macroeconomic stability, liberalization of trade and privatization. Williamson pointed this paradigm at the Washington Consensus. Relatedly, economic transitions in Latin America and Central Easter Europe were chiefly based on these blocks of interventions. However, the economic sclerosis in Europe and Latin America on the hand and the economic boom of other unorthodox economic approaches in East Asia and Africa has resurfaced some of the influential thoughts in economics. In addition to macroeconomic stability, OECD Jobs (2006) study noted the importance of labour market reforms especially under the conditions of single currency unions. A new consensus has been fostered around the notion of flexibility. This has the effect of preserving the old social order but at the same gives economies more room to manoeuvre and use wage flexibility as an automatic stabilizer.

Generally speaking, other influential economic thoughts on the importance of resources for economic growth has not abated. Krugman and Venables (1995), noted the importance of economic geography. Their study highlights the importance of transportation and access to sea as a predictor of economic wealth and growth. Similarly, Diamond (1997) noted the importance of geographical zones in predicting the patterns of historical development of societies in Western hemisphere. In the recent years there has been a flurry of academic articles highlighting the importance of institutions for economic development. This line of thinking posits that countries that have been successful in coining a social consensus and provide political and legal stability stand a better chance of promoting economic and business activity. Acemoglu and Robinson (1999) documented the importance of institutions for explaining prosperity in Europe and poverty in Africa. In a similar approach, Rodrik (1999) provided empirical evidence of the missing nexus between the quality of institutions and levels of per capita growth. Sachs (1991) offered a different explanation that more fits with the neo-liberal narrative. Using empirical data of trade openness and patterns he was able to convincingly explain the importance of free trade for prosperity. Mankiw (2004) and Barro et al (2009) have more recently advanced the notion of human capital and its importance for growth.

All economic thoughts noted above do include robust hypotheses and empirical evidence. However, economic geography approach has not been able to explain some of the important
growth patterns inland. For example, Ethiopia and Botswana have been some of the leaders of growth and per capita in Africa during the past two decades. This has come in spite of them being landlocked. The economic argument about the role of institutions for growth is very powerful in first sight. However, there have been a number of recent studies indicating the reverse causality effect. That means that institutions could rather be a symptom of prosperity rather than a driving factor. Trade openness has dominated the economic debate in the past two decades.

Nevertheless, China’s growth in the past ten years using a cautious approach to globalization, has taught us about the limitations of the theory. Generally speaking growth patterns could be widened to provide more explanatory variables. Porter (2005) advanced the notion of competitiveness of nations. The approach seeks to provide a more holistic explanation to growth by integrating institutions, transport, technology and human capital into the mainstream. The approach is based on the levels of development theory and also integrates both macroeconomic and microeconomic approaches to competitiveness.

The purpose of this study is to analyze the competitiveness of Kosovan economy using the competitiveness approach. The global study includes a transparent methodology that can easily be applied to other cases missing from the Global Competitiveness Index. Kosovo has not been part of earlier studies and hence its competitiveness index remains unknown. The impact of individual factors to Kosovo overall competitiveness index is also a mystery. The main aim of this thesis is to firstly place Kosovo into the global competitiveness index using the comparative analysis and secondly provide a more detailed account of the importance of macroeconomic stability and labour market efficiency for its competitiveness. The study is both academically and socially relevant because it adopts an unorthodox approach to explain Kosovo position, growth patterns and existing bottlenecks. It offers a contribution to the existing debate about the impact of macroeconomic policies in its competitiveness. On the other hand, it also surfaces Kosovo labour market dynamics and provides essential data to explain their impact on its economy.

This thesis reports the findings of a thorough study of the influence that macroeconomic stability and labour market efficiency have in the prosperity of Kosovo and how successful
these indicators are within the country. Emphasis is placed on the role that these two variables play in the success of Kosovo’s economy, how developed they are and how Kosovo stands in comparison to other regional countries (Albania, Montenegro, Macedonia, Serbia) as well as other countries such as Estonia (approximately similar to Kosovo for its population and not a huge difference for its territory), Luxembourg (developed EU country) and Austria (average EU country). Having considered that Kosovo’s index of macroeconomic environment and labour market flexibility and efficiency are not reported on the annual Global Competitiveness Report of World Economic Forum, this thesis will help on receiving the information that is needed for the country’s prosperity and development.

The study adopts Porter’s (2005) National Economic Competitiveness to measure the index in Kosovo and these two indicators are the key pillars of National Economic Competitiveness Approach. Macroeconomic stability is inserted as a basic requirement in the first stage while labour market efficiency as an efficiency enhancer in the second stage of development and increasingly seen as a precondition for the third stage (innovation). The study uses the computation methods and indicators of the World Competitiveness Index, where the indicators are calculated based on composite data and weighted average. Data is collected based on UBT stats, official statistics and from a survey that has been done with 78 different companies all over Kosovo, where these companies were selected randomly.

This study is substantially based on a 10 – year period, it specifically examines the macroeconomic stability and labour market efficiency indicators from 2007 to 2017. Over the last ten years there have been data that will show us whether or not Kosovo is considered to be a developing country that is moving on a positive direction, as it is expected to be. All the comparisons of statistical data that this study integrates are mainly reviewed for the last ten years which helps us have a vision where the country is heading in the long term.

In the first chapter, the study contains different theories advanced by very well-known authors about the indicators of a country’s prosperity and comparative advantage. We start by analyzing the institutional approach by Rodrik and his elaboration of the relationship between the level of institutions and economic growth. Then we move forward to the resource endow-
ments approach explained by Sachs and Warner (1997) that is focused in the so-called “re-
source curse” which represents a paradox that countries that have abundance of natural re-
sources are the ones that lack economic development and growth. The study then continues
with the human capital approach analyzed by Mankiw which discusses the importance of
investing in people, education, health, training, etc. According to this theory, this investment
is what drives the economic development and prosperity in a country. Moreover, the eco-
nomic geography approach mentioned by Krugman and Venables, elaborated the existence
of agglomeration advantages and regional disparities. Nevertheless, at the end of all ap-
proaches the study integrates the competitiveness approach by Porter, that puts together all
the theories mentioned earlier into one.

In the next chapter, the study takes a deeper look at the two main variables that are macroe-
conomic environment and labour market efficiency by calculating the macroeconomic index
and labour market index in Kosovo and elaborating each and every indicator for each index
separately. The static data is then analyzed per each factor of the index and moreover the
weighted average is generated. The chapter after this explains the results of the study which
includes the static and dynamic data that were processed by official statistics and question-
naire conclusions.

At the end, the last chapter wraps the whole study by providing us with a concrete and sig-
nificant conclusion as well as the recommendations for achieving better economic perfor-
mance for Kosovo in the region and more.
2 LITERATURE REVIEW

The term “competitiveness” has been used over the course of many years by different authors but there is no general accepted definition regarding it. It originated from the word “petere” meaning to seek or desire and the prefix “con” meaning together (Siudek & Zawojska, 2014).

Porter (1990) explains that national competitiveness has become one of the main priorities of governments and industries in every nation. National competitiveness is not a notion very well defined regarding the numerous theories explaining what it is, including it being driven by variables such as exchange rates, interest rates, government deficits, cheap labor, natural resources, government policies nor management practices. Nevertheless, Porter defines competitiveness at the national level as a concept of productivity, where productivity is a nation’s prime determinant of a long-run standard of living and national per capita income.

Therefore, a nation’s standard of living depends on the capacity of its companies to achieve high levels of productivity and productivity itself can be improved nor threatened by international trade and foreign investment. There have been a numerous theories about what competitiveness really is and what truly determines it and authors worldwide identified micro and macro-economic sources of a firm’s competitiveness. Microeconomic factors include firm’s operations and strategy, quantity and quality of production factors, technology and innovations. Macroeconomic environment includes monetary and fiscal policy, the quality of social and political institutions, etc. (Siudek & Zawojska, 2014).

Many concepts and theories related to competitiveness that have been said over the years are ranged from classical concepts and theories, neoclassical, Austrian and institutional concepts and theories to the most contemporary concepts and theories. Considering Adam Smith was the most famous author in classical approach, he believed that countries can gain benefits in international trade by specializing in the production of goods that they have an absolute advantage. Nevertheless, what is known as Heckscher and Ohlin theory says that countries can specialize in producing goods that require intensive use of locally abundant factors, therefore
they can export capital intensive goods nor labour intensive goods (Siudek & Zawojska, 2014).

Neoclassical theories explain that it is innovation that can drive the competitive advantage within a firm or in a macro level, which is as well linked to Schumpeter’s theory of innovation and entrepreneurship that is also supportive of the fact that the ability to create new solutions and taking risks is what makes firms be competitive in the market and win over their rivals. On the contrary, the institutional economics streams, led by Max Weber, believed that the competitiveness is affected by social institutions such as public authorities, financial institutions, socio – political organizations, trade unions, etc.

On the other hand, Paul Krugman and Michael Porter explain their contemporary concepts and theories of competitiveness. Krugman believes that productivity growth is the main driver of competitiveness whereas Porter expands the competitiveness’ indicators by classifying them into 4 different groups such as: factor endowments, demand conditions, related and supporting industries, the firm’s strategy, structure and rivalry (Siudek & Zawojska, 2014).

Porter asked many questions about how and why some companies are capable of consistent innovation and improvements and then others struggle to be known in a worldwide concept and the answer relies on four determinants of national competitive advantage which are named as factor conditions (skilled labor and infrastructure); demand conditions (market demand for the product or service offered); related and supporting industries (the presence or absence of supplier industries that are internationally competitive); firm strategy, structure and rivalry (the conditions how companies are created, organized and managed).

Competitiveness as a term is one of the most used in economics nowadays and it surely has many definitions given throughout the years by many famous authors. Porter explains that the most intuitive definition of competitiveness is a country’s share of world markets for its products. This makes competitiveness a zero-sum game, because one country’s gain comes at the expense of others. On the other hand, Scott and Lodge explain national competitiveness
as being a country’s ability to create, produce, distribute, and/or service products in international trade while earning rising returns on its resources.

As it is mentioned earlier in the study, these theories are divided into different groups of concepts such as the institutional approach, resource endowments approach, human capital approach, geography approach and lastly the competitiveness approach.

2.1 The Institutional Approach

According to Walter Neale, an institution means an observable arrangement of people’s affairs that are in contrast with their activities that are all derived from assumptions, intuitions or introspection. Therefore, an institution is identified by three features: the number of people doing, the rules that give different activities repetition and stability and so called “folk views” that explain the activities and rules and they also give us the information we need to participate intelligently in the activities of the society (Neale, 1987). Institutions are the combination of three different factors that are explained below: Economic institutions – factors that help structure the incentives within a society such as entry barriers, property rights, etc; political power – economic institutions are the outcome of the choices that are selected in the society, where society is formed by different groups with conflicting interests; political institutions – institutions that allocate de jure (by right) political power to the group of interests (Docquier, 2014).

We know that entrepreneurial activity includes all attempts of all individuals to start a new company but it also represents all the companies that try to include new resources in new business models and this helps economic growth and development. On the other hand, legal systems influence this entrepreneurial activity and therefore the economic growth as well. The greater the level of business ownership in an economy, the greater it is the level of entrepreneurship and creating a favourable climate for entrepreneurship to flourish (institutions) can influence a long term economic development (Stephen, et al., 2005).
Furthermore, economic development and institutions influence other characteristics such as quality of governance, access to capital and other resources, the perceptions of entrepreneurs (Acs, et al., 2008).

It is said that the global economy is divided into three stages that are described as: factor – driven stage, the efficiency – driven stage and the innovation driven stage. Countries that are part of the first stage usually compete through low cost efficiencies when they produce new products, countries that are in the second stage increase their efficiency in producing goods and commodities and in the mean time they train their workforce in adapting new technological changes over time. On the other hand, the countries on the final stage have a decline on manufacturing meanwhile the service sector expands and this is the sector where many entrepreneurship opportunities happen (Acs, et al., 2008).

However, institutional arrangements, including educational provisions or social security arrangements or other businesses influence entrepreneurial activity whether it is in a direct or indirect way (Acs, et al., 2008).

2.2 Resource Endowments Approach

There have been many theories explaining the indicators of economic development, one of which is related to what is called “resource curse”, meaning that the economic resources (endowments) do not lead to economic development, as it is perceived by so many.

A study that has been made within thirty states in sub – Saharan Africa showed a negative correlation between economic performance and the exports of hard rock minerals. It was found out that the states that were major oil exporters as well as hard rock minerals exporters, performed less well economically than the resource – poor states. It was yet another study that showed that the states with a high ratio of natural resource exports had slow growth rates. Therefore, the existence of so called “resource curse” has been an ongoing discussion over the course of many years, being considered as the only answer to the whole situation (Ross, 1999).
Resource curse refers to the failure of resource rich countries to benefit from their natural resource wealth and for the governments in these countries to respond effectively to public welfare needs (Natural Resource Governance Institute, 2015). Hence, there have been many explanations that were grouped into: economic explanations for the resource curse and political explanations for the resource curse. Political explanations can then be sorted into three different groups such as: cognitive theories, which blame policy failures, societal theories, which show the bad influence of privileged classes and interest parties and statist theories, which blame the state’s institutional weakness (Ross, 1999).

The cognitive approach suggests that resource wealth causes some type of myopia among public and private actors. Societal approaches suggest that resource booms enhance the political leverage of non-state actors, who at the same time support growth impeding policies. On the other hand, the overall economic and political explanations for the resource curse and how resource wealth affect countries are mentioned below (Natural Resource Governance Institute, 2015):

**Democracy** – natural resource wealth has made it possible for governments to be more authoritarian considering the fact that governments are more likely to respond to citizens’ requests and transition to democracy when its spending relies on citizen taxation. On the contrary, if it relies on natural resources, the citizens are less involved and have less information about where the money is going or if the revenues are being spent well or not;

**Conflict** – natural resources can provoke internal conflicts considering different groups fight for the control of these resources;

**Inefficient spending and borrowing** – boom – bust cycles are very difficult to predict, therefore resource rich governments tend to spend a lot in government salaries or monuments but they spend so much less in health, education or other social services, which leads to inefficiency;

**Dutch Disease** – a boom in resource exports can produce economic stagnation through the effect known as “Dutch disease”. It means that a large increase in natural resource revenues
can hurt other economic sectors by causing inflation and exchange rate appreciation and also shifting labour and capital from the non-resource sector to the resource sector;

**Patriarchy and gender based challenges** – research has shown that oil-rich countries tend to have less women involved in the workforce as well as they tend not to be represented by women in their government. This is mainly because of the “Dutch disease” and as a matter of this, women have a higher tendency of being diagnosed with life-threatening diseases;

**Limited government capture of benefits** – in some cases, only a small share of the production value stays in the country. Some of the reasons might be because the rules of splitting the profit between companies fail to compensate the state for using their resources as well as for the environmental damage they cause.

**Weaker institutional development** – institutions are weaker in resource rich countries, elites in these countries are less likely to invest in productive enterprises such as job-creating or manufacturing industries and instead they pursue rent-seeking (rent-seeking means manipulating public policy as a way of gaining and increasing profits, rent-seeking can be loan subsidies, grants, etc.). Therefore, it is easier for elites to take large sums of cash;

**Social and environmental problems** – sharing and compensating for resources such as land, water, minerals can create conflicts between companies nor communities, which is something that has been happening for a long time and it is exactly why countries get into disagreements.
2.3 Human Capital Approach

Human capital, as explained by Goldin, is the stock of skills that the labour force possesses and it is regarded as a resource or an asset. Therefore, the meaning is more of an investment in people, in education, health, training, and these investments increase the productivity of the individuals within a company. The concept and importance of human capital is mentioned long before, as Adam Smith noted in his 1776 book that “The acquisition of… talents during…education, study, or apprenticeship, costs a real expense, which is capital in a person. Those talents are part of his fortune and likewise that of society” (Goldin, 2014).

At first the economic theory only considered exogenous factors such as land, labour and physical capital, as factors of production and the ones that had an impact in economic growth. Human capital theory became relevant when primary and secondary education and then universities and educational institutions became more accessible (Camps-Cura, 2016).

Human capital is very important for the development of new advanced technologies and necessary for their adoption and efficient use. Three main consequences of formal education are: higher levels of education have a great impact on achieving higher wages, lower unemployment probabilities and higher labour force participation rate (Matovac, et al., 2010).

One of the variables that is often impacted by the development of human capital is the phenomenon known as “brain drain”, specifically that part of the population that seeks new and better opportunities abroad. This usually happens because people tend to find better living standards and quality of life, higher salaries, access to advanced technology and more stable political conditions. Brain drain or the migration of people happens from the developing countries to developed countries. In this case, the developing countries are the ones that lose a lot considering they invest in the education and training of young health professionals who afterwards leave the country to find better standards elsewhere.
This is a huge cost for the developing countries because of many reasons such as: material cost (the cost of educating and training), time and lost opportunity. Considering that the intellectuals of any country are the most expensive resources, their migration leads to a very poor health system (Dodani & LaPorte, 2005).

Brain drain is a great contribution to increasing inequalities in the world which is explained by the fact that education increases the level of human capital and thus the private benefits, which is also beneficiary to the society through raising taxes and increasing the overall productivity. These benefits usually are transferred from poor to rich countries and that is the inequality.

General economic, political and social situation in a country can affect the decisions of workers whether to leave the country or not. Stable wages, low unemployment rate, investments in education and health services, a stable political situation, professional perspectives are all indicators of a long – term economic development, therefore they are very beneficial for the workers and this is exactly why they choose their own country instead of going elsewhere.

The structural change caused by globalization and technological change has increased the importance of human capital, therefore physical work is substituted by machines and by cheaper labour input from abroad. In this case, rich and developed countries can raise the skills of their workers and of course be able to adapt globalization as one of the key factors to maintain prosperity within the country (Matovac, et al., 2010).

There is about 40% of Kosovo’s population that have their relatives abroad and one in four families accepts remittances. Out of many reasons, family reunion is one that people decide to leave the country as well as working abroad and having higher salaries, which can help them maintain a good living standard. People that tend to leave the country are the unemployed and seasonal workers, as well as the advanced educated (UNDP, 2014).
Fig. 1. Net migration for 2017, Kosovo compared to regional and European countries

(World Bank, 2018) / (ASK, 2014-2017)

The chart above shows net migration of Kosovo compared to the regional and European countries. Montenegro is the country with the lowest net migration in the region whereas Luxembourg and Austria are the countries that have more people entering than leaving the area, therefore they have a positive value of net migration through 2017.

Considering some of the main factors that people leave the country is wages and their standard of living, in the figure below we will find out the fluctuations of wages in Kosovo, specifically the average gross and average net salary, as well as them compared to other countries of the world, which we think are important to consider.
Fig. 2. The average gross and net salary in Kosovo, from 2012 to 2017

(ASK, 2012-2017)

From the figure above we can see that the average gross and net salary of Kosovo has been increasing from 2012 to 2017, therefore it is heading towards a positive direction. The average gross salary has increased for approximately 97 euros (22.5%) whereas the average net salary has increased for approximately 87 euros (22.7%).

2.4 Economic geography Approach

The geography approach has been a theory of Paul Krugman and Anthony Venables, who over the years have been discussing about the effects of globalization on real national incomes and its ability to maintain high living standards. Globalization, as it was supposed to benefit all nations, on the contrary it also tended to produce wealth to some countries at the expense of others, therefore it produced “uneven development” which led to rich nations gaining more and having high living standards at the expense of the poor countries and that
was one of the biggest problems considering the fact that it was supposed to be the other way around (Krugman & Venables, 1995).

Krugman tries to explain the existence of agglomeration advantages and regional disparities. One of the assumptions that is key to the study is the so-called “iceberg” formulation of transport costs that justifies the fact that a good part of a product “melts away” during its transportation from the producer to consumers.

Another question risen was how globalization affect the location of manufacturing and gains from trade, Krugman and Venables in their study explained as below:

“At high transport costs all countries have some manufacturing but when transport costs fall below a critical value, a core-periphery spontaneously forms, and nations that find themselves in the periphery suffer a decline in real income. At still lower transport costs there is convergence of real incomes, in which peripheral nations gain and core nations may lose.”

2.5 Competitiveness Approach

Global Competitiveness Report is an annual report by the World Economic Forum and the Global Competitiveness Index (GCI) measures national competitiveness, defined as the set of institutions, policies and factors that determine the level of productivity, which is what Porter and Krugman referred to as a concept of competitiveness and the ability of a country to improve its living standards (Porter & Schwab, 2008).

Global Competitiveness Index was created referring to some of the most important and most reviewed indicators worldwide that are divided into macro and microeconomic indicators that are: institutions, infrastructure, macroeconomic environment, health and primary education, higher education training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication and innovation. These are so called 12 pillars and each of these pillars reflects one aspect of the competitiveness of nations (Porter & Schwab, 2008).
In the figure above we can see all the pillars that are divided into three different stages of development and how each one of them is part of each stage. Therefore, macroeconomic stability is part of the first stage (factor – driven), meanwhile labour market efficiency is part of the second stage (efficiency – driven).

Countries all over the world are ranked in the stages of development based on their level of GDP per capita and the extent to which countries are factor – driven. The debate that has taken place for many decades is how do nations prosper, which is something that has been examined through “competitiveness”. As mentioned earlier, there are 12 main pillars of competitiveness that influence nations thrive and prosper and they are mentioned below (Porter & Schwab, 2008):
The institutional environment consists of the interaction between individuals, firms and governments to generate income and wealth in the economy of a country. This includes public and private institutions and their attitudes toward the markets and operations’ efficiency: bureaucracy, overregulation, dishonesty, corruption. Well-developed infrastructure reduces the effect of distance between regions, it integrates the whole national market and it connects it to other markets. This is what impacts the economic growth and in the meantime it reduces the income inequalities. Having qualitative roads, railroads, air transport nor a good shipping method, it increases the level of participating in international markets easier, as well as getting the products or services on time.

Macroeconomic stability alone cannot make the difference in competitiveness but it helps not stagnate. Firms nor government cannot make decisions if there are high interest rates nor high percentage of inflation in the country. Workers who are ill cannot function to their potential, therefore poor health leads to business costs. This pillar integrates the role of primary education as well, regarding workers who do not have the basic education will find it harder to be part of a job that contains more advanced opportunities and techniques, on the contrary do the ones who possess the formal education.

Qualitative higher education and training is crucial to the economies of those countries that want to engage into more advanced production processes and where manual work is not enough to move up the value chain. Countries with efficient goods markets are well positioned to produce a wide range of products and services inside and outside the country. Market efficiency relies on healthy competition, customer orientation (customers in some countries are more demanding than others), foreign direct investments, etc.

Labor market efficiency means the workers are at their most efficient use in the economy of the country, as well as they are provided with incentives in order to give their best efforts in the jobs. However this also means ensuring a clear relationship between the workers’ incentives and their own efforts. Business investment is critical to productivity, therefore sustainable economies and competitive nations require stable financial markets that can make capital available for private-sector investment from sources like loans, securities exchange, venture capital and other financial products. Regarding globalization and technology development
nowadays, technology is a key indicator to gaining competitive advantage and enhancing the productivity of industries.

The size of the market affects the productivity because it allows the firms use economies of scale. In the era of globalization and open markets, international markets substitute domestic ones and this is more concentrated in the small countries. Business sophistication means higher productivity while producing goods, a higher quality of a country’s overall business networks and a higher quality of individual firms’ operations and strategies. Although investing in institutions, infrastructure, macroeconomic stability, labor, goods and financial markets’ efficiency, it is also proved that these factors will eventually run into diminishing returns. This theory believes that only by technological innovation can you really expand your standards of living.

According to Porter, a country’s prosperity is measured by its productivity and productivity is based on the value of a country’s products and services as well as the efficiency that these products use to be produced. Therefore competitiveness is measured by productivity, regarding the fact that productivity supports high living standards.

Some of the factors that can influence productivity are: the role of institutions, openness to trade and investment, geographic location and the quality of business environment and this has been said for many years. Nevertheless, the new GCI framework indicates that there are three main blocks that cause productivity (Porter & Schwab, 2008 – 2009): Endowments, Macroeconomic competitiveness, Microeconomic competitiveness.

Endowments include the influence of natural resources (the positive correlation known as Dutch Disease and negative correlation known as “resource curse”, mentioned earlier in the paper), geographic location (the country’s ability to engage in trade as well as climatic conditions that may expose the entire nation to tropical diseases) and the country’s size and population, which all three influence prosperity.

Macroeconomic competitiveness is made of two areas that are: macroeconomic policy and social infrastructure and political institutions. Macroeconomic policy consists of fiscal policy
and monetary policy. Fiscal policy is the use of government spending and taxation to influence the economy. It is noted that more prosperous countries tend to have a larger share of government spending in GDP which is logical considering the fact that the need for infrastructure and social security enhances with the increment of prosperity. It is believed that the size of the government is less important than the way it spends the money and the way taxation is structured, therefore the sustainability of government financing is one of many important factors that has an impact in productivity.

Monetary policy involves actions that are taken by the central bank of a country which manages the money supply and therefore affects the interest rates. Monetary policy may affect the economy by distorting decisions away from investments that lead to productivity.

Social infrastructure and political institutions is the other group of macroeconomic competitiveness that is classified into three other areas such as: basic human capacity, political institutions and rule of law. Basic human capacity means basic education and health care because without these two variables there cannot be any productivity. On the other hand, political institutions have an impact on the predictability of the rules that are the context of the entire economy. It is proved that almost all economies with higher prosperity are democracies.

The rule of law, specifically the influence of law in a society, means being able to protect property and legal rights in order for different firms to be part of an economic activity. If these rights are weak then assets cannot be used at their best and this influences the productivity, nevertheless even if these rights exist, corruption is one of the main factors that reduces their economic value. The rule of law is threatened by crime, military conflicts, civil wars etc. and all these indicators make it impossible of having high levels of productivity because of the high costs of doing business and the lack of incentives for investments (Porter & Schwab, 2008).
On the other hand, microeconomic environment is defined by companies, academic institutions and other businesses that operate within a market. It is as well divided into two main areas that are company sophistication and business environment quality (it is the state of cluster development as well but this one is related to business environment).

Company sophistication is one of the variables that has not been as much discussed regardless of the importance it has considering the fact that the productivity of a country depends on the productivity of its firms. Therefore, an economy cannot be competitive enough unless the companies are competitive. Productivity increases as soon as companies improve their operational processes, as well as being able to make strategic decisions and adapt new technologies (Porter & Schwab, 2008).

Being innovative means bringing new ideas, new methods and unique products or services in the market and this is what makes companies achieve their competitive advantage towards their competitors. The productivity of companies is influenced by the structures of corporate
governance, taking into account that the presence of diversified companies lead to productivity delay because of many factors such as: the lack of focus, monopoly power and government favoritism.

On the other hand, business environment quality is another indicator that has a huge influence in companies’ productivity. A better business environment involves more efficient physical and administrative infrastructure, more skilled human resources, more advanced research institutions, etc. Business environment is a group of four different dimensions that are: The quality of factor conditions (it includes the high quality of inputs for businesses such as natural endowments, human resources, information infrastructure, capital availability, etc.), the context of rules (the incentives within a country that encourage investment and therefore productivity), the quality of local demand conditions (sophisticated local customers and needs such as environmental standards), the presence of related and supporting industries (locally based suppliers and supporting industries, clusters over isolated firms).

Globalization is a process of interaction between different countries where the goods and services are moved from one country to another and this integration of economies is made by the free flow of ideas, people, goods, services and capital across borders (IMF, 2002).

This is why it is one of the main factors that has increased the demands for transportation and communication infrastructure. On the other hand, it is believed that the quantity and quality of higher education is crucial to the economy of a country and its prosperity, however many countries have a large number of people reaching higher education levels, yet their country’s productivity rates remain low.

Competition is a key driver to company’s performance (KPIs) regarding it enhances the productivity of a company through some of the factors that are mentioned here (Network, 2009):

Firms are pressured to lower their production costs in order to have competitive prices in the market, as well as be able to improve their products and services so their customers remain happy by meeting their demands; it is easier for companies to enter and exit the market, therefore the current companies make sure to give their best in order not to lose their market
share by new potential companies; it encourages innovation through the introduction of new products and services or the development of new processes to produce these products and services, it increases the efficiency of production and reduces the costs; competition puts pressure to keep local producers competitive by improving roads, bridges, airports and educational opportunities.

It increases the productivity by creating the benchmark – a firm battling in a competitive market cannot afford to be left behind because the community benchmarks it against its rivals. One of the key aspects of the context for strategy and rivalry is the openness to foreign trade and investment. Borders’ openness helps the country boost their productivity by having access to new ideas and new technology as well as being more competitive in the market (Porter & Schwab, 2008).

Trade openness helps countries achieve their comparative advantage by specializing in producing goods and services where they have comparative advantage; it helps the removal of tariff barriers and therefore the prices are much lower for the customers; it helps increase the competition because firms will compete with one another on a global level and this automatically increases efficiency as well as it reduces the costs, it may also have an impact on being considered as an incentive for the economy to shift resources to new industries where they can maintain their competitive advantage; trade liberalization creates specialization because economies concentrate on producing a smaller number of goods where they think are better and this afterwards increases the efficiency and savings by using economies of scale; it increases the number of investments in the country considering it will be more attractive for the investors (Economics Help, 2017).

On the other hand, there are many other disadvantages of the trade liberalization considering many industries are closed down because countries are concentrated only on the ones that are more profitable and at the same time they are specialized on, therefore there is a structural unemployment. Many workers are damaged due to international competition. There will be more environmental costs, regarding the many raw materials that would be produced and many toxic waste. Trade liberalization can damage new industries as well, which is also known as the “infant – industry argument”, according to which most economies had their
period of trade protection and this is not happening with the developing economies now because of trade liberalization, therefore many argue that this only benefits the developed countries but not vice versa, the developing countries as well (Economics Help, 2017).

Consumer protection and environmental regulations on the other hand are seen to be very costly from the companies’ perspective since if more environmentally friendly products would fetch higher prices and lower production costs, companies are assumed to have produced them without the need of regulations. As competition is nowadays more global, companies can choose their location as well as their market access and this is what has made clusters even more important. Clusters are less productive in the developing countries regarding the lack of supporting industries and specialized local infrastructure and institutions; that is in the contrary in the more developed and advanced countries (Porter & Schwab, 2008).

2.6 Stages of economic development

In the factor – driven stage, low cost labour and natural resources are the main components of competitive advantage. Here companies compete on price and they focus on labour – intensive manufacturing and resource extraction. Companies that are part of this stage are very sensitive to commodity prices or exchange rate fluctuations.

In the investment – driven stage, countries gain their competitive advantage by producing advanced products and services, therefore they invest in infrastructure, government administration and incentives and this is exactly the way they increase their productivity. Countries at this stage start improving their own technology whereas the economy is concentrated more in the manufactured goods and outsourced service exports.

In the innovation – driven stage, companies achieve their competitive advantage by producing innovative products and services with the most advanced methods at the most advanced technology globally. These three stages are very important to understand all the determinants of competitiveness that highly influence the progress of a country.
2.7 Conceptual framework

2.7.1 Macroeconomic Stability

According to the Global Competitiveness Report, written by Michael Porter and Klaus Schwab, in their 2008 – 2009 report, the macroeconomic environment is very important for every business and therefore for the whole competitiveness of a country. Although macroeconomic stability isn’t the only factor that can enhance productivity within a nation, on the other hand the macroeconomic instability surely will harm the entire economy as well. Some of the reasons are that firms cannot make decisions when inflation is out of their control, as well as the government would find it difficult to provide services if they have to pay high – interest payments for the past debts (Porter & Schwab, 2008).

A government that produces high inflation is one that has lost control of it all, therefore the economic growth in these cases is very low. Instability in inflation can cause exchange rate risk for investors. This lack of control of the inflation rate can affect domestic demand directly and indirectly. This means by shifting from domestically produced goods to imported goods as well as affecting the level of production, which on the other hand influences consumption demand and citizens’ incomes within a country. High macroeconomic instability might cause political instability as well. This is because the wages of many poor people do not match with the high prices in the market and there is a higher job insecurity considering the low production (Ulvedal, 2013).

As mentioned earlier, the government will have to pay its past debts relying on the borrowing and if this debt is borrowed at the domestic market, this will increase the demand for funds. Regarding the country is not fully financed, the interest rates are increased and as a matter of this investors will not be interested in investing in the country (Ulvedal, 2013).
Table 1. Macroeconomic index

| Macroeconomic environment |     |
|---------------------------|-----|
| 3.01 Government budget balance as % GDP | 6.04 |
| 3.02 Government debt % GDP               | 5.95 |
| 3.04 GDP per capita (PPP)                | 1.14 |
| 3.05 Gross national savings              | 3.39 |
| 3.06 Gross capital formation            | 2.54 |
| 3.07 Inflation                         | 4.83 |
| 3.08 Interest rates                     | 0.28 |
| 3.09 Labour participation rate          | 4.2  |
| **Weighted Average**                    | **3.54** |

From the table above we can see that government budget balance as a percentage of GDP and government debt as a percentage of GDP, are considered to be two of the best indicators meaning that it is perceived that government debt is not something to worry about because it is at a low rate or nonexistent. On the other hand, gross national savings and labour participation rate are considered to be around average, meaning the situation can be improved because there is certainly a need for improvement. Some of the indicators that were assessed extremely not satisfactory were interest rates and GDP per capita.

Government budget balance as a percentage of GDP is considered the best macroeconomic indicator in Kosovo by the official statistics.
Table 2. Government budget balance (% of GDP), 2007-2017

|                | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Kosovo         |       |       |       |       |       |       |       |       |       |       |       |
| Albania        | -4.10 | -3.80 | -5.52 | -6.83 | -3.71 | -3.50 | -3.05 | -6.15 | -5.58 | -3.99 | -1.68 |
| Serbia         | 2.70  | 0.50  | -2.14 | -4.06 | -3.51 | 2.57  | 1.85  | 1.19  | 3.26  | -3.67 | -0.01 |
| Macedonia FYR  | -4.70 | -3.50 | -4.50 | -2.30 | -1.13 | -1.59 | -3.06 | -1.54 | -2.42 | -3.69 | -3.23 |
| Montenegro     | -4.10 | -3.40 | -0.80 | -2.50 | -1.81 | -6.94 | -7.54 | -5.45 | -4.89 | -4.30 | -4.15 |
| Austria        | -1.20 | -0.78 | -0.41 | -2.96 | -4.09 | -2.56 | -2.54 | -1.84 | -3.33 | -1.60 | -1.42 |
| Estonia        | 3.80  | 2.80  | -2.97 | -1.72 | 0.20  | 0.99  | -0.24 | -0.36 | 0.37  | 0.53  | 0.27  |
| Luxembourg     | -0.60 | 0.60  | -1.40 | -2.85 | -2.49 | -2.55 | -3.84 | -3.98 | -4.21 | -3.68 | -        |

Source: (International Monetary Fund, 2018)

From the table above, we can see that Estonia is the only country that has experienced a positive government budget balance, being 0.27% of GDP. In the same condition, we find Serbia at earlier stages of development, which situation has been changed over the last 2 years. Nevertheless, Serbia still remains the best in the region. Kosovo’s Central government debt in Kosovo was evaluated to be at a very satisfying rate and this is shown in the chart below as well.
Kosovo’s central government debt has been fluctuated between 15%-19% of GDP and that is one of the lowest rates considering the other countries in the world. Timor – Leste is the best country for its government debt, reaching 2.78% of GDP in 2016. On the other hand, Japan is the worst country when government debt is considered, being approximately 197%. In the table below we can see the differences between Kosovo and other regional and european countries and Kosovo in fact is in a satisfactory level.
Table 3. Central government debt (% of GDP), 2006-2016

|         | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---------|------|------|------|------|------|------|------|------|------|------|------|
| Kosovo  | 4.129| 15.627| 13.880| 15.915| 16.216| 16.717| 18.918| 19.585|
| Albania | 46.69| 53.55| 55.14| 59.67| 57.71| 59.39| 62.11| 65.52| 70.02| 73.00| 72.25|
| Serbia  | 40.06| 33.14| 31.86| 35.31| 42.73| 45.22| 56.56| 59.96| 70.71| 74.68|
| Macedonia FYR | 29.79| 22.88| 19.96| 23.14| 23.67| 27.37| 33.28| 33.82| 37.91| 37.87| 39.44|
| Montenegro | 30.93| 25.51| 27.62| 36.18| 29.18| 42.98| 50.92| 51.07| 56.18| 62.2| 60.8 |
| Austria  | 54.51| 52.19| 55.48| 58.95| 59.99| 59.35| 59.78| 60.06| 59.58| 59.03| 59.88|
| Estonia  | 1.82 | 1.28 | 1.71 | 3.48 | 3.25 | 3.19 | 10.80 | 10.99 | 11.37 | 10.92 | 10.38 |
| Luxembourg | 1.46 | 1.43 | 8.47 | 8.74 | 13.02 | 12.12 | 14.12 | 15.66 | 14.96 | 14.36 | 13.58 |

Source: (World Bank, 2018)

Estonia and Luxembourg are some of the best countries in Europe for their central government debt, considering they both stand between 10%-13% per year. Austria however has a much different situation, having about 60% of its GDP on government debt in 2016 which was higher than the previous years. Kosovo is the one with the lowest rate in our region and Albania on the contrary remains the country with the highest debt, even larger than Montenegro.

Below in the chart we can see the GDP per capita (PPP) for Kosovo over the course of 9 years, which is described to be in a positive path. However, the statistics shown below are compared to Central African Republic and Qatar.
Kosovo is one of the countries with the lowest GDP per capita (PPP – purchasing power parity) in the region, as per 2017 it has been evaluated to be $10754.4 and it still remains low regardless of being higher than the previous periods. In the figure above, we can see that the GDP per capita (PPP) in Kosovo has been increased over the years, considering in 2008 it was $7228.77 and it has been a constant increment until 2017 meaning that the living standards have been improved which is important as more people can consume higher levels of goods and services. However, Kosovo is then compared to the best and the worst cases in the world, as well as the world average.

As a result, Kosovo is just above Central African Republic, which is the country with the worst GDP per capita (PPP) in the whole world. It is also clear that Kosovo is under the world average and that is something to worry about. On the other hand, we have Qatar that remains the richest country in the world for GDP per capita.
Regardless of the increment of GDP per capita (PPP) in Kosovo, below in the table we can see that even compared to the other countries of the region as well as other countries that we have selected from Europe, specifically Albania, Serbia, Montenegro, Republic of Macedonia, Austria, Estonia and Luxembourg, Kosovo still remains the country with the lowest rate.

Table 4. GDP per capita (PPP), 2007-2017

|          | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Kosovo  | 6962.7 | 7228.7 | 7466.85| 7745.7 | 8215.2 | 8541   | 8883.8 | 9163.1 | 9748.7 | 10193.4| 10754.4|
| Albania | 7291.2 | 8228.3 | 8813.2 | 9637.3 | 10207.7| 10526.2| 10570.9| 11259.2| 11334.2| 11559.3| 12020.6|
| Serbia  | 10474.3| 11921.8| 11827.6| 12087.1| 12967.9| 13107.9| 13760.0| 13771.3| 13896.1| 14514.9| 15090.0|
| Montenegro | 12445.2| 13816.5| 13022.4| 13648.2| 14472.4| 13863.8| 14870.1| 15371.1| 16272.1| 17633.1| 18765.1|
| Macedonia FYR | 9241.2 | 10417.6| 10912.2| 11284.8| 11611.8| 11841.0| 12655.5| 13370.0| 13766.3| 14731.3| 15231.3|
| Austria | 39385.7| 41361.2| 40919.1| 42047.0| 44452.7| 46457.3| 47922.0| 48787.4| 49883.0| 50521.4| 52397.7|
| Estonia | 21960.5| 22664.0| 20498.7| 21602.7| 24543.0| 26022.4| 27495.7| 28538.4| 28688.9| 29743.3| 31742.0|
| Luxembourg | 83967.2| 86993.8| 82263.4| 85969.6| 92005.0| 91622.1| 95590.5| 101640| 102517.1| 102389.4| 103744.8|

Source: (World Bank, 2018)

Albania is the second country with a higher GDP per capita (PPP) than Kosovo and Luxembourg remains the country with the highest rate compared to the others, which is actually drastically higher in comparison. Luxembourg is a small European country (smaller than Kosovo in surface area and in population) and still its statistics are enormously more satisfactory than Kosovo’s. The fluctuations in a time period between 2007 to 2017 for each country, are shown in the table above.
One of the indicators that has been evaluated as the worst indicator of macroeconomic stability in Kosovo is interest rates. Although many have said that interest rates have been improved compared to earlier years, and this theory is true regarding the chart below, they are not as satisfactory as people would want them to be and if we compare that to the other countries in the world like EU countries or USA or China.

![Interest Rates Chart]

Fig. 7. Kosovo’s real interest rates (%), from 2007 – 2016, compared to the world average, best and worst cases

(World Bank, 2018)

China is one of the most stable countries in the world for its real interest rates, which fluctuated from negative interest rates in between 2007 and 2011, to higher interest rates from 2012 to 2015. After that, China reached 0.28% of real interest rates in 2017 which is far ahead of Kosovo. On the other hand, it’s clear to see that Kosovo has been at 12.63% when China was experiencing a negative interest rate, at -0.31% and that is extremely different. We can say the same fact about other EU countries where real interest rates fluctuate between 0% to 2%. However, Madagascar continues to be the worst case in the whole world, regarding the 47.76% of real interest rates happening in 2017.
In the table below we can see the difference between Kosovo and other regional countries.

### Table 5. Real interest rates (%), 2005-2015

|        | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Kosovo | 17.78 | 10.66 | 12.63 | 6.22  | 12.48 | 8.86  | 8.66  | 9.81  | 8.92  | 5.83  | 7.47  |
| Albania| 10.18 | 9.97  | 10.16 | 5.00  | 9.99  | 7.97  | 9.89  | 9.73  | 9.50  | 7.00  | 8.11  |
| Serbia | -9.47 | -6.03 | -3.53 | -4.14 | -1.31 | 0.66  | 1.97  | 3.50  | 3.64  | 4.07  |       |
| Macedonia FYR | 6.89 | 7.78 | 5.39 | 3.97 | 9.74 | 7.29 | 4.96 | 7.41 | 3.40 | 5.29 | 5.09 |
| Montenegro | 0.95 | -5.89 | 1.49 | 6.78 | 7.80 | 8.38 | 9.36 | 7.17 | 8.29 | 6.56 | 2.73 |

Source: (World Bank, 2018)

In 2005 Kosovo was experiencing one of the worst years in history of the country about the real interest rates, considering it was 17.78%. The years ahead weren’t very stable and the interest rates were fluctuating at about 11%. 2014 is considered to have the best percentage of interest rates, although it is still reaching approximately 7%-8% each year after that. In 2015 Montenegro had one of the best rates at about 2.73% which is very comparable to the other developed countries. Serbia is another good example regarding it has experienced negative interest rates as well in the past years, although the rates have been raised during 2012 to 2014.

One of the other indicators that has an impact on macroeconomic stability is inflation rate, which can be seen in the chart below for Kosovo and its fluctuations from 2007 to 2017. In the same chart Kosovo is compared to the worst and best cases in the world, as well as the world average.
Fig. 8. Kosovo’s inflation rate, GDP deflator (annual percentage) from 2007 – 2017, compared to the world average, best and worst cases

(World Bank, 2018)

The statistics for inflation rate as a GDP deflator have been generated from the World Bank, as an annual percentage and it is shown that the highest inflation rate has been in 2008 and it has been dropping ever since. Kosovo is doing astonishingly well considered it even surpasses the best country in the world for inflation rates in 2008, 2011 and 2014 as the years that Kosovo has experienced extremely better rates than Lesotho. However, it is very near Lesotho in 2017, which holds the record for the lowest inflation rates in the world. As a matter of fact, we can say that Kosovo has had impressive fluctuations of inflation rates that has been nearly as good as the world average.

In the table below Kosovo is compared to the regional countries and others and there is still a significant difference between Kosovo and others.
Table 6. Inflation, GDP Deflator (annual percentage), 2007-2017

| Country          | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|
| Kosovo           | 1.25 | 7.11 | 1.42 | 4.69 | 4.26 | 2.21 | 1.81 | 3.26 | 0.19 | 0.45 | -0.25|
| Albania          | 3.57 | 7.63 | 2.42 | 4.49 | 2.31 | 1.04 | 0.29 | 1.55 | 0.56 | -0.48| 1.37 |
| Serbia           | 8.21 | 10.61| 8.29 | 5.87 | 9.56 | 6.26 | 5.44 | 2.71 | 2.67 | 2.53 | 2.83 |
| Macedonia FYR    | 4.59 | 5.49 | 0.29 | 2.04 | 3.72 | 1.00 | 4.48 | 1.44 | 1.88 | 4.23 | 3.47 |
| Montenegro       | 16.04| 7.62 | 2.41 | 1.60 | 1.20 | 0.17 | 2.06 | 1.03 | 2.22 | 5.10 | 2.72 |
| Austria          | 2.22 | 1.95 | 1.88 | 0.87 | 1.83 | 2.05 | 1.62 | 1.98 | 2.31 | 1.08 | 1.55 |
| Estonia          | 11.51| 7.49 | 0.43 | 1.73 | 5.26 | 3.16 | 3.55 | 1.47 | 1.24 | 1.59 | 3.97 |
| Luxembourg       | 1.49 | 3.88 | 1.39 | 3.61 | 4.77 | 2.55 | 1.69 | 1.64 | 1.31 | -1.30| 2.13 |

Source: (World Bank, 2018)

The highest inflation rate for Kosovo happened in 2008, as it was 7.11% and the years after that were in a descending rate up until 2017 when it hit the lowest rate of the decade which in reality was a negative rate, approximately -0.25% as a GDP deflator, as the only country with a negative inflation rate compared to the rest of the region. Montenegro in 2007 had the highest inflation rate of all countries and it managed to take control of it and decrease in a level that would later be not much different than Kosovo’s.

Gross domestic savings as one of the main indicators of macroeconomic stability is calculated as GDP less final consumption expenditure. A country’s savings are very important for it to be able to invest and provide the right capacity for investment or production and this is exactly what helps the economy grow. Higher savings rate lead to less consumption expenditure which means there is a larger amount of capital investment. In the chart below we can see Kosovo’s gross domestic savings from 2007 to 2017, compared to the world average, best and worst cases, which leads to a better comprehension of Kosovo’s situation.
Fig. 9. Kosovo’s gross domestic savings (% of GDP), from 2007 – 2017, compared to the world average, best and worst cases

(World Bank, 2018)

Kosovo’s gross domestic savings haven’t been satisfactory over the last 10 years considering the fact that Kosovo has had a negative savings account from 2007 to 2011. It has been increased from 2011 to 2013 and there was a negative percentage in 2014, approximately -2.94% of GDP, therefore people are spending more money than they earn (consumption is higher than GDP). A negative savings rate means the country is going into debt or will go pretty soon. Consequently, Kosovo is worse than the world average and not at all close to the best case that is Macao SAR, China. Somalia on the other hand, is what makes Kosovo look good in the chart but the differences of these two countries are significant, economically, politically or socially.

The table below shows all the countries in comparison to Kosovo from 2007 to 2017 and their gross domestic savings, as a percentage of GDP.
Table 7. Gross domestic savings (% of GDP), 2007-2017

|                | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Kosovo         | -9.50 | -7.45 | -3.73 | -2.61 | 0.67  | -0.14 | -0.08 | -2.94 | -0.87 | -0.43 | 2.10  |
| Albania        | 7.21  | 5.08  | 7.22  | 12.76 | 13.78 | 13.68 | 8.75  | 11.01 | 8.15  | 5.28  | 8.55  |
| Serbia         | 4.81  | 5.31  | 3.51  | 3.48  | 4.70  | 4.34  | 6.94  | 6.64  | 9.09  | 11.62 | 12.18 |
| Macedonia FYR  | 5.85  | 2.81  | 4.17  | 6.16  | 7.96  | 7.46  | 10.74 | 13.08 | 14.07 | 17.85 | 17.89 |
| Montenegro     | -7.98 | -12.12| -3.82 | -3.92 | -2.63 | -3.83 | -0.47 | 0.38  | 1.64  | 3.63  | 5.14  |
| Austria        | 29.23 | 28.90 | 25.83 | 26.00 | 26.72 | 26.67 | 26.42 | 26.77 | 27.49 | 27.29 | 28.36 |
| Estonia        | 30.63 | 27.28 | 25.54 | 27.63 | 30.83 | 30.64 | 29.71 | 29.50 | 27.81 | 26.51 | 28.42 |
| Luxembourg     | 52.47 | 51.35 | 48.37 | 50.77 | 51.97 | 50.39 | 51.03 | 53.01 | 53.35 | 53.04 | 53.35 |

Source: (World Bank, 2018)

Luxembourg is the country with the highest gross domestic savings as a percentage of GDP, it has achieved 53.35% of GDP in 2017, whereas Montenegro and Kosovo are considered to be the worst out of all the countries in the chart. In earlier years (example: 2008) Montenegro had a lower savings rate than Kosovo, specifically -12.12% of GDP meanwhile Kosovo was at -7.45% of GDP. Nevertheless, in 2017 Kosovo is estimated to have a lower gross domestic savings rate, being 2.1%, whereas Montenegro had 5.14% of their GDP as savings.

One of the other indicators is gross capital formation that respectively is the net capital accumulation within a period of time. A country that produces more products and services than others has high national incomes. As a matter of fact, the countries that generate savings and investments are the ones that can accumulate funds for capital stock. Generally speaking, capital formation in terms of economic growth and economic development helps the country produce more and therefore promote investment. This is why it is one of the main indicators that has an impact on the macroeconomic stability. For this reason, the chart below shows the gross capital formation, as a percentage of GDP from 2007 to 2017, for Kosovo compared to the best case in the world that is Mauritania and the worst that is Angola.
Fig. 10. Kosovo’s gross capital formation (% of GDP), from 2007 – 2017, compared to the world average, best and worst cases

(World Bank, 2018)

From the figure above, it is very clear that Mauritania is the best country in the world in terms of gross capital formation, considering it hit 56.83% in 2017, that is drastically higher than the world average and therefore Kosovo. Kosovo on the other hand is just above the world average, as it is 28.87% in 2017, a data that is very impressive having considered the size of the country and the other not at all satisfying statistics. Angola is the worst case worldwide, having 7.81% of GDP as a gross capital formation.
The table above shows the differentiation between Kosovo and the other regional countries and the difference is not very significant regarding the statistics are very close to one another. The only major difference is in comparison to Luxembourg, which surprisingly has the lowest gross capital formation of all of the other countries that were analyzed. Luxembourg had 17.30% of GDP gross capital meanwhile Kosovo is at 28.87% of GDP and that is very magnificent.

Despite of Kosovo not having all the statistics available for labour force participation rate over the course of 10 years by the country’s official statistical agency, the chart below gives us a perspective of Kosovo’s labour participation rate (employed people and people that were seeking employment at the moment of data collection).

Table 8. Gross capital formation (% of GDP), 2007-2017

| Country      | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Kosovo       | 25.73 | 31.12 | 31.14 | 32.95 | 33.93 | 28.95 | 27.60 | 25.77 | 27.57 | 27.17 | 28.87 |
| Albania      | 38.65 | 35.77 | 34.55 | 30.30 | 31.41 | 28.32 | 28.36 | 24.57 | 24.41 | 24.77 | 25.22 |
| Serbia       | 29.09 | 30.32 | 19.41 | 18.46 | 20.10 | 21.01 | 17.64 | 17.49 | 18.85 | 19.07 | 20.99 |
| Macedonia FYR | 23.71 | 27.93 | 25.74 | 24.46 | 26.91 | 28.92 | 28.80 | 30.29 | 30.44 | 32.58 | 31.63 |
| Montenegro   | 34.75 | 41.17 | 26.94 | 21.76 | 19.32 | 20.58 | 19.60 | 20.22 | 20.09 | 26.09 | 29.30 |
| Austria      | 24.58 | 24.46 | 22.77 | 22.60 | 24.14 | 23.97 | 23.72 | 23.51 | 23.57 | 24.11 | 25.08 |
| Estonia      | 39.29 | 30.71 | 20.71 | 21.27 | 25.10 | 29.09 | 26.90 | 27.10 | 24.94 | 24.24 | 25.36 |
| Luxembourg   | 19.20 | 20.69 | 16.21 | 17.88 | 19.44 | 19.37 | 19.01 | 18.84 | 18.11 | 17.94 | 17.30 |

Source: (World Bank, 2018)
Kosovo has had an increment of labour participation rate from 2012 to 2014 with a downfall in 2015 of about 4%. After that, 2017 has been yet the year with the highest labour force participation, meaning the country has been moving positively in this aspect. However, Kosovo is just above the worst country in the world regarding the labour force participation rate that is Samoa and at some point they even are very close. On the other hand, Kosovo is very distant to the world average, which is an indicator that shows that Kosovar market is not at all satisfying considering there is an enormous number of people unemployed. Iceland reached approximately 90% of total population that is employed and that is absolutely remarkable.

After analyzing the data for Kosovo, the table below gives us a better look at the labour participation rate of the countries that we have compared Kosovo with in the whole study. The data that is provided by World Bank shows the participation rate for the last 10 years,
except for Kosovo and the data has been collected by ASK (Kosovo Agency of Statistics) and it is only available from 2012 and on.

Table 9. Labour participation rate, total (% of total population ages 15-64), 2007-2017

|        | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| Kosovo |      |      |      |      |      | 36.9 | 40.5 | 41.6 | 37.6 | 38.7 | 42.8 |
| Albania| 62.90| 62.37| 62.19| 62.17| 63.53| 64.88| 61.11| 62.31| 65.07| 65.11| 65.17|
| Serbia | 63.63| 62.58| 60.97| 59.97| 60.64| 61.41| 62.32| 62.68| 62.72| 64.82| 64.92|
| Macedonia FYR | 62.72 | 63.46 | 63.92 | 64.21 | 64.22 | 63.85 | 64.81 | 65.22 | 64.77 | 64.37 | 64.71 |
| Montenegro | 59.52 | 59.18 | 58.77 | 58.35 | 57.97 | 58.37 | 58.32 | 58.25 | 58.25 | 58.31 | 58.37 |
| Austria | 73.04 | 73.60 | 74.17 | 74.41 | 74.76 | 75.32 | 75.64 | 75.42 | 75.51 | 76.19 | 76.19 |
| Estonia | 73.23 | 74.32 | 74.17 | 73.98 | 74.84 | 74.97 | 75.27 | 75.40 | 76.80 | 77.65 | 77.74 |
| Luxembourg | 66.45 | 66.26 | 68.33 | 67.96 | 67.68 | 69.05 | 69.27 | 70.08 | 70.66 | 69.48 | 69.49 |

Source: (World Bank, 2018)

We can clearly see that Kosovo is the country with the lowest participation rate in labour force, as a percentage of total population including the ages of 15 – 64 years old, respectively in 2017 Kosovo has a labour participation rate of 42.8% meanwhile Estonia is the country with the highest participation rate in labour force, respectively 77.74%. What is considered to be more concerning for Kosovo is that if we compare it to other countries in the region (countries that Kosovo is surrounded by), we can still see there is a drastic difference in between, regarding Albania has a participation rate of 65.17% in 2017 or Montenegro which happens to be the country with the most problematic statistics, has a participation rate of 58.37%. This means that Kosovo is considered to be in a very bad position as one of the worst countries in the world for its labour participation rate.
2.7.2 Labour Market Efficiency

The efficiency of the labour market is very important for ensuring that workers are allocated to their most efficient use in the economy, as well as being provided with incentives in order to give their best work in their jobs. Therefore, labour markets should have the flexibility to shift workers from one economic activity to another, at low cost. They also need to make sure that they have equity between men and women in the work environment, as well as being able to use their available talent within the country (Porter & Schwab, 2008).

Many countries find the difficulty to maintain their talented people, which leave the country to find a job elsewhere (mostly developed countries), and this is because of many reasons such as: low living standards, low wages, discrimination in recruitments, political instability or different existing conflicts, limited opportunities for the students, lack of quality infrastructure, health system, institutions, etc.

According to Global Competitiveness Index, there are three main stages of development that are classified as: factor – driven stage, efficiency – driven stage and innovation – driven stage. The factor – driven stage is the one where countries compete based on their factor endowments and their natural resources meanwhile companies compete based on their low prices and selling basic products. The efficiency – driven stage is the one where companies need to increase their product quality and develop efficient production processes. The innovation – driven stage is the one where countries sustain higher wages and have better living standards if they are able to adopt new technologies and sell unique products or services.
Table 10. Labour market efficiency index

| Labour market efficiency                                      |       |
|---------------------------------------------------------------|-------|
| 7.01 Cooperation in labour– employer relations               | 4.25  |
| 7.02 Flexibility of wage determination                       | 4.81  |
| 7.03 Hiring and firing practices                              | 3.5   |
| 7.04 Redundancy costs                                        | 6.63  |
| 7.05 Effect of taxation on incentives to work                | 4.07  |
| 7.06 Pay and productivity                                    | 3.61  |
| 7.07 Reliance on professional management                     | 3.11  |
| 7.08 Country capacity to retain talent                       | 2.63  |
| 7.09 Country capacity to attract talent                      | 2.18  |
| 7.10 Brain Drain                                             | 1.81  |
| 7.11 Female participation in the labour force                | 2.52  |
| **Weighted average**                                         | **3.55** |

From the table above we can see that redundancy costs as an indicator, is considered at a great level. Redundancy is a process of dismissing someone because they are no longer useful or needed within an organization, it is a termination of employment that is caused by inadequate level of work. Therefore redundancy is being adopted by many firms across the world, in order to reduce costs and enhance organizational performance (Nyasha, 2016).

In the chart below, we can see the redundancy costs for Kosovo and other countries.

The chart below shows the comparison of Kosovo to the best and worst cases in the world, as well as world average, in terms of total tax rate, as a percentage of commercial profits.
Kosovo’s total tax rate (% of commercial profits) from 2007 – 2017, compared to the world average, best and worst cases

(World Bank, 2018)

Kosovo is at a very satisfying level in terms of total tax rate, which can be as well compared to the best scenario that is Brunei Darussalam. It is in fact very similar to the Brunei from 2007 to 2014 and from that on they have an insignificant disparity. The world average is above Kosovo considering many of the world’s countries share about the same amount of tax rates that is approximately 45%-50%.

The next chart shows Kosovo’s situation compared to the regional and European countries and how satisfactory are the interest rates when the region is involved.
As a matter of fact, Kosovo is about as good as Macedonia FYR in the last three years. Macedonia FYR has a total tax rate of about 13% over the last three years and Kosovo has been at 15.2% over the same exact years, therefore they have a disparity of 2.2% which is almost insignificant. At this case, Kosovo is about as good as Luxembourg which rates are about 20% each year. On the other hand, the country with the highest tax rates is Estonia, which is not very different to Austria and other European countries. The only difference has happened in 2012 where Estonia reached 66.8% of total tax rate and Austria was at 52.3%.

Female participation on the other hand, in economic, social or political areas is very important for the country’s wellbeing and development. It increases the number of employees and reduces unemployment, it increases the wellbeing of females in the country by creating a fair community. Work opportunities increase the opportunity cost of marriage and childbearing therefore they delay marriage and fertility but they also increase investment in girls’ human
capital. Labour force participation as well as education have shown that they are the indicators that delay fertility but once the woman does have the children, she will have healthier children (Heath & Jayachandran, 2017). Female participation in labour market means improved health, reduced domestic violence for women and greater economic growth which helps the whole country and society. Lack of progress in employment represents lost economic opportunity because of not being able to put the valuable resources (female potential) at their best use. Therefore, women’s education and employment benefit the whole society of a country, not just the women their selves (Winkler, 2016).

In the chart below, we can see the female participation rate for Kosovo and the worst and best cases in the world, alongside the world average.

![Chart](chart.png)

Fig. 14. Kosovo’s labour force participation rate, female (% of female population, ages 15+), from 2007 to 2017, compared to the world average, best and worst cases

(World Bank, 2018)

We see that the country with the worst female participation rate in labour market is the Republic of Yemen where the rate has been fluctuating between 10%-12% and it finally hit
5.99% in 2017, which is the lowest in the world. Kosovo is right behind Yemen, being considered as one of the worst countries worldwide in terms of female participation, which lastly was 12.7% and that is something to worry about. It is seen that Kosovo is way behind the world average and extraordinarily far behind the best country in the world that is Rwanda. Rwanda is considered to have its females participate at the rate of 86% which is extremely better than any European country and others. This is absolutely overwhelming considering Rwanda is an east African country.

However, there have been different reasons why Rwanda beats many well-developed countries in the world regarding female participation rate and gender equality in general. A huge influencer of the statistics was the tragic events of 1994, when Rwanda had a large number of female population, as men had been killed during the genocide. Therefore, promoting women became a priority by default.

Table 11. Labour force participation rate, female (% of female population ages 15+), 2007-2017

| Country          | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|
| Kosovo           | 10.7 | 12.9 | 12.5 | 11.5 | 12.7 | 12.7 |      |      |      |      |      |
| Albania          | 46.8 | 46.26| 44.94| 45.69| 47.1 | 48.81| 44.65| 44.78| 47.67| 47.43| 47.21|
| Serbia           | 45.93| 45.23| 44.19| 42.87| 42.63| 43.01| 43.37| 43.92| 43.53| 42.35| 42.46|
| FYR Macedonia    | 42.87| 42.59| 42.45| 42.78| 43.43| 43.01| 43.37| 43.92| 43.53| 42.35| 42.46|
| Montenegro       | 42.82| 42.82| 42.65| 42.6  | 42.58| 42.74| 42.69| 42.56| 42.44| 42.31| 42.14|
| Austria          | 52.11| 52.67| 53.37| 53.5  | 53.84| 54.33| 54.59| 54.56| 54.53| 54.94| 54.95|
| Estonia          | 54.15| 54.88| 54.73| 55.02 | 55.56| 55.36| 55.33| 54.59| 55.99| 56.47| 56.36|
| Luxembourg       | 46.81| 46.95| 48.76| 48.82| 49.4 | 50.97| 51.1 | 51.99| 53.55| 52.24| 52.26|

Source: (World Bank, 2018)

We can clearly understand that the country with the highest female participation rate in labour market is Estonia and the one with the lowest is Montenegro. These statistics show that Kosovo is nowhere near as good as the countries that it is surrounded by, without even considering other developed countries.
Therefore, some of the main barriers to women being involved more in the labour force are: family responsibilities, social discrimination, lower levels of education and work experience, barriers in the labour law, etc. (World Bank, 2018).

The indicators that are considered to be average are cooperation in labour – employer relations, flexibility of wage determination, effect of taxation on incentives to work, pay and productivity and hiring and firing practices. Therefore there is still a need for the improvement of these indicators. On the other hand, brain drain which is also related to the country’s capacity of attracting and retaining talent, is at an extremely bad situation, meaning Kosovo has a lot of people that leave the country to maintain their careers abroad because they perceive other countries to be more attractive by having higher living standards and higher wages.
3 PROBLEM STATEMENT

Porter’s competitiveness approach integrates institutions, technology and human capital into the mainstream, all of the indicators that have been discussed during the study. The approach is based on the levels of development theory and also integrates both macroeconomic and microeconomic approaches to competitiveness (stages of development). According to Porter, a country’s prosperity is measured by productivity and some of these factors that can influence productivity are: the role of institutions, openness to trade and investment, geographic location and the quality of business environment, etc.

Overall, the annual report of WEF involves all 12 pillars, as crucial to a country’s prosperity and competitiveness in the market. Considering the fact that Kosovo isn’t part of the annual report, this study aims to put Kosovo in the map, regarding 2 of the pillars that are crucial for the country’s competitiveness.

Hypothesis 1: The quality of educational institutions is correlated with firms’ ability to employ technology.

Hypothesis 2: The quality of educational institutions is correlated with the availability of foreign firms.

Hypothesis 3: The quality of educational institutions is correlated with the quality of institutions.

Hypothesis 4: Firms’ ability to employ technology is correlated with business innovation.

Hypothesis 5: The quality of institutions is correlated with firms’ ability to employ technology.

Education and Human Capital variable includes the entire education system, the quality of math and business schools as well as the quality of research institutions, the flexibility of hiring and firing policies, companies’ investment in employee training and development, labour-employer relations as well as social safety for workers.
Technology variable includes the availability of the latest technologies, the usage and access to information and communication technologies, the ability of these technologies to bring new business models and improve the quality of government services.

Governance variable includes country’s legislative process, the efficiency of legal systems, the government’s ability in providing public goods and services, corporate ethics and overall country’s legislative stability.

Lastly, Business Operations and Innovation variable includes country’s competitive advantage towards other countries, the sophistication of production processes, the ability of new companies with innovative ideas to grow and succeed, business collaboration in research and development, their collaboration in sharing new ideas and innovating concepts.
4 METHODOLOGY

Taking into account that the Global Competitiveness Report of World Economic Forum includes 12 pillars of competitiveness, this thesis will examine two of the pillars, specifically macroeconomic stability and labour market efficiency. Macroeconomic environment is inserted as a basic requirement in the First Stage of Development meanwhile labour market efficiency as an efficiency enhancer in the Second Stage of Development and increasingly seen as a precondition for the Third Stage.

The study uses the computation methods and indicators of the World Competitiveness Index. Indicators are calculated based on composite data and weighted average. Data collection is based on UBT Stats, official statistics from the World Bank, Kosovo Agency of Statistics, Central Bank of Kosovo and International Monetary Fund, and all of these statistics helped create the macroeconomic stability index. Meanwhile dynamic data has been based on the survey accomplished with 82 different firms in Kosovo, which helped create the labour market efficiency index.

In view of reducing survey bias, businesses were randomly selected to represent the business demographics of Kosovo based on economic activity (NACE), size of companies and geographical distribution. All these companies represented the main sectors of the economy, therefore, the ones that were selected for this survey had more than 50 employees and were located in different regions within Kosovo, as well as having different backgrounds such as: trade, transportation, leasing and tenancy, catering, financial intermediary, education, mines, electricity, healthcare, construction, agriculture and other services. We applied the semi–structured interviews and the companies were asked other related questions in addition to the basic ones that were specified in the questionnaire. This helped us get a better point of view and concrete results.

The questionnaire is standardized, meaning it is the same that has been applied by the World Economic Forum for generating important results all over the world (in more than 140 coun-
tries). The Executive Opinion Survey is an important component of the Global Competitiveness Report. It collects valuable information on a broad spectrum of critical aspects of competitiveness around the globe. The questionnaire contains about 130 questions from various fields, including the infrastructure, financial environment, education, technology, foreign trade and foreign investment, domestic competition, business operations and innovation, etc. The companies that have responded to the questionnaire, are part of different industries, as mentioned above, and the number of firms per each industry interviewed was determined in advance.

Most questions in the survey ask the participants to evaluate, on a scale from 1 to 7, the current conditions of their operating environment, where 1 represents the worst current situation and 7 represents the best situation of the country.

Indicators that were represented on a Scale from 1 (worst) to 7 (best) were computed using weighted average on SPSS. The results then helped make a correlation analysis. Moreover, the study shows the correlation in between other variables that were part of the labour market efficiency index, more specifically the correlation between education and human capital and others (including institutions, technology, foreign direct investments and business innovation).
5 RESULTS AND DISCUSSION

This thesis is all about analyzing macroeconomic stability and labour market efficiency considering static and dynamic data. While macroeconomic stability has taken into account the static data from the official statistics that have been already mentioned, labour market efficiency on the other hand has considered the results that were based on respondents’ perceptions reflected on the questionnaire. The results of this thesis are based on the questionnaire that consists of approximately 130 questions from which relevant to our study are questions related to Governance, Education and Human Capital, Technology, Foreign Trade and Investment, Business Operations and Innovation.

5.1 Correlation

As described earlier in the study, we made a correlation analysis to understand if our hypothesis are acknowledged or not. In the tables below we see the Pearson Correlation analysis between the main variables of the thesis where correlation is significant at the 0.05 or 0.01 level (2-tailed). Meanwhile, all the other data related to correlation between sub-variables are shown in appendix.

In our correlation analysis we test the correlation between education and human capital variable and technology.

| Correlations | Technology | Education and HC |
|--------------|------------|------------------|
| Technology   | Pearson Correlation | 1 | .626** |
|              | Sig. (2-tailed)     | 52 | .000 |
|              | N                 | 52 | 52 |
| Education and HC | Pearson Correlation | .626** | 1 |
|              | Sig. (2-tailed)     | .000 | 52 |
|              | N                 | 52 | 52 |

**. Correlation is significant at the 0.01 level (2-tailed).
There is a vast international literature suggesting a direct impact of human capital formation in growth. Arguably, human capital formation is important for firms’ productivity and their research and development practices. Investment in R&D is often correlated with firms’ product, service and organizational innovation. Our correlation analysis reveals a significant correlation between human capital proxy variables and firms’ ability to employ technology and innovative business practices. Firstly, there seems to be a close linkage between quality of science institutions (Edu 5) and business use of information and communication technology (Tech 4), government use of information and communication technology in its services. This suggests that efforts to improve business models and use of technology is closely related to efforts to improve scientific research. Secondly, firms’ ability to attract talent (Edu10) is also correlated with their access to information and communication technology (Tech 2) and the use of technology in producing goods and services (Tech 10). The logic posits that brain gain and availability of highly educated people would spur technological use and productivity enhancement. Thirdly, the availability of qualified graduates is equally correlated with the intensity of technological use. Lastly, firms’ perceptions on graduate skills (Edu 21b) is strongly correlated with their perceptions of potential for internationalization, knowledge sharing in production and cooperation with universities. The analysis reveals that firms’ international competitiveness is strongly connected to the availability of skilled workforce. Overall, as seen in the table above, the quality of educational institutions is significantly correlated with firms’ ability to employ technology (0.626), therefore our hypothesis is acknowledged.

On the other hand, scholars have researched intensively the impact of labour market and education in foreign direct investment. The FDI literature has attempted to explain the foreign direct investment as an equation of the quality of institutions, size of the market, proximity to advanced economies, availability of transport. In recent years studies have also found a close relationship between labour market flexibility, quality of education and research in a country with its ability to attract FDI.
Table 13. Correlation between education and FDI

| Correlations | Education and HC | FDI |
|--------------|------------------|-----|
| Education and HC | Pearson Correlation | 1   | .436** |
|                | Sig. (2-tailed)   | .001|     |
|                | N                | 52  | 52  |
| FDI           | Pearson Correlation | .436** | 1 |
|                | Sig. (2-tailed)   | .001|     |
|                | N                | 52  | 52  |

**. Correlation is significant at the 0.01 level (2-tailed).

However, as seen in the table above our analysis suggests that there is a weak link between labour market and education variables with foreign direct investment (0.436). There is a moderate correlation between the quality of research and the availability of foreign firms in Kosovo, potentially suggesting that weak knowledge and scientific base could offer some clues in the foreign firms’ investments. However, other variables do not correlate with FDI proxy (FDI4, FDI 5) on prevalence of international business and availability of foreign direct investment. This suggests that explanations about the FDI trends could be a result of other variables.

Table 14. Correlation between education and governance

| Correlations | Education and HC | Governance |
|--------------|------------------|------------|
| Education and HC | Pearson Correlation | 1 | .803** |
|                | Sig. (2-tailed)   | .000 |     |
|                | N                | 52  | 52  |
| Governance    | Pearson Correlation | .803** | 1 |
|                | Sig. (2-tailed)   | .000 |     |
|                | N                | 52  | 52  |

**. Correlation is significant at the 0.01 level (2-tailed).
In table 14 we see that governance is strongly correlated with education and human capital variable (0.803). In our correlation analysis we test the potential linkages between the quality of institutions as part of the governance variable and labour market efficiency. The analysis needs a proxy for the quality of institutions and a proxy for labour market efficiency. As part of the quality of institutions, that analysis relies on a composite of variables measuring legislative efficiency (Inst 1), government capacity to offer public services (inst 2), efficiency of courts for dispute resolution (inst 3), corporate ability to challenge government regulation (inst 4), ethical standards of politicians (inst 7), practice of government favoritism and corruption practices (inst 8), prevalence of fiscal favoritism and unfair competition (inst 9) and corporate ethics in relation with public officials and government (inst 16). The second step is to seek any potential linkages between proxies representing institutional quality and proxies for labour market efficiency.

Overall, our correlation analysis reveals that legislative efficiency, government capacity to offer public services, courts efficiency and corporates ability to challenge government regulation are correlated with the quality of scientific research institutions, ability to attract talent and availability of scientists. Similarly, institutional quality is also correlated with government’s capacity to offer safety net for the unemployed, active labour market policies and the perception of graduates skills and teaching in higher education. The analysis infers that the strength of institutions is important for ensuring the smooth operation of labour market, human capital formation and research and development. Inversely, firms’ perceptions about institutions seem to influence their perception of graduates suggesting a link between poor government and poor education. In conclusion, our hypothesis is acknowledged.

The literature also suggests that in recent years economies have based their competitiveness on labour market flexibility. As governments have lost their fiscal intervention due to debts and monetary policy, they have increasingly relied on flexible labour market policies to outsmart other economies. The logic infers that firms’ ability to hire and fire enables them to increase allocative efficiency, reduce potential losses and regain their lost competitiveness. This paradigm has stemmed in Western Europe after the creation of the Euro and European
Monetary Policy. The varieties of capitalism approach has advanced the conception that ultimately economies would be divided into liberal market economies and coordinated market economies. Liberal market economies would like USA and Great Britain, focus on general workers’ skills. Conversely, coordinated market economies like Germany, focus on well-established industries that require specific technical skills in science and math.

Our correlation analysis in the Kosovo case study confirms that theoretical assumption. Firms’ perceptions on hiring and firing flexibility (Edu 9) are correlated with their views on quality of science and math schools (Edu 2), their investment in workers’ development and training (Edu 3) and availability of labour protection schemes (Edu 19). The findings suggest that the labour market in Kosovo is flexible and would mirror those in USA and Great Britain for the ease of hiring and firing legislation. Under the given institutional contexts, firms are discouraged to invest in long-term employee development. Flexible labour markets tend to focus on general skills rather than technical skills. There is a correlation between the labour market flexibility and the quality of math and science schools. This finding could suggest a potential explanation for the underdevelopment of STEM professions in Kosovo.

In a world of globalization, information technology and its usage by companies is playing a key role in changing one’s profit but as well affecting the firms’ ability for innovation and new ideas and building new business models. Our correlation analysis reveals that technology is significantly correlated with business operations and innovation meaning that firms’ ability to employ technology is correlated with firms’ ability to innovate and share ideas in the market. As seen in table 15, the correlation between these two variables is 0.668.
Table 15. Correlation between technology and business innovation

| Correlations                             | Technology | Business innovation |
|------------------------------------------|------------|---------------------|
| Technology Pearson Correlation           | 1          | .668**              |
| Sig. (2-tailed)                          |            | .000                |
| N                                        | 52         | 52                  |
| Business innovation Pearson Correlation  | .668**     | 1                   |
| Sig. (2-tailed)                          | .000       |                     |
| N                                        | 52         | 52                  |

**. Correlation is significant at the 0.01 level (2-tailed).

In our analysis we also test the correlation between governance and technology, having considered the importance of technology in business and institutions’ daily and important operations as well as its importance in producing results.

Table 16. Correlation between governance and technology

| Correlations                             | Technology | Governance |
|------------------------------------------|------------|------------|
| Technology Pearson Correlation           | 1          | .587**     |
| Sig. (2-tailed)                          |            | .000       |
| N                                        | 52         | 52         |
| Governance Pearson Correlation           | .587**     | 1          |
| Sig. (2-tailed)                          | .000       |            |
| N                                        | 52         | 52         |

**. Correlation is significant at the 0.01 level (2-tailed).
As seen in table 16, there is a significant correlation between the quality of institutions and firms’ ability to employ technology (0.587). This finding could suggest a potential explanation for the underdevelopment of institutions in Kosovo.

Table 17. Hypothesis

| Hypothesis | Results |
|------------|---------|
| **Hypothesis 1** | The quality of educational institutions is correlated with firms’ ability to employ technology. | Accepted |
| **Hypothesis 2** | The quality of educational institutions is correlated with the availability of foreign firms. | Rejected |
| **Hypothesis 3** | The quality of educational institutions is correlated with the quality of institutions. | Accepted |
| **Hypothesis 4** | Firms’ ability to employ technology is correlated with business innovation. | Accepted |
| **Hypothesis 5** | The quality of institutions is correlated with firms’ ability to employ technology. | Accepted |
6 CONCLUSIONS AND RECOMMENDATIONS

In summary of what has been said during the whole study, we can conclude that Kosovo’s macroeconomic environment is not as satisfying and as stable as it expected to be, as well as labour market is not just as efficient. Kosovo is a developing country and being that, it needs to improve the main indicators that lead to macroeconomic stability and the flexibility and efficiency of labour market.

Kosovo macroeconomic environment is ranked among lower middle income countries. Generally, its economy has been growing steadily but per capita is strikingly low compared to advanced economies. While it has managed to keep inflation under control, the interest rates, savings rate and capital formation rates are still low to deliver the expected increase in domestic product. Kosovo is among the top reforms and achievers in regulatory framework in labour flexibility and redundancy costs.

One of the worst labour market indicators in Kosovo is the female participation rate which is poor compared to the other countries. Considering that one of the main reasons that women don’t participate in the labour market just as much as men is that women tend to have two full time jobs (workplace and caregiving), firms should consider allowing flexible working hours for women. Studies show that female participation rate in labour market tends to be higher in those countries that provide family benefits (Ortiz-Ospina & Tzvetkova, 2017), therefore Kosovo could start using higher levels of public spending on family benefits, making it easier for women to incorporate in the workforce.

The other indicator that has been evaluated as an alert is brain drain, respectively the migration of human resources and human capital for the reasons of poor quality of life and the lack of opportunities left in the country. This as well indicates the structural mismatch between Kosovo’s demand and supply in the labour market, therefore its capacity to retain and attract talent is very low. Considering Kosovo is known for having the youngest population in Europe, the country should reconsider supporting innovative ideas and projects, investing in R&D, as well as support build the trust between youth and public institutions. These are some
of the main problems caused by the country’s loss of investment in education and other important sectors.

On the other side, the country could help improve supply and demand mismatch by investing in vocational education, a modern curriculum, modern technology in the entire education system, training accordingly to market needs, improved testing which helps measure the competence in specific areas.

The strength of institutions is correlated with human capital formation and research and development. On the other hand, there is a link between poor government and poor education in terms of firms’ perceptions towards institutions. We find that firms’ ability to attract talent is correlated to their access to information and communication technology which means firms would enhance their productivity and technological use by possessing highly educated people and vice versa. Overall, firms’ international competitiveness is mostly based on the availability of skilled workforce.

This study also finds that the labour market in Kosovo is flexible which represents the ones in USA and Great Britain in terms of the ease of hiring and firing legislation. This is also the reason why firms don’t invest in long-term employee development. Considering flexible labour markets tend to focus on general skills rather than technical skills, this could explain the underdevelopment of STEM professions in Kosovo. Regardless of the fact that recent studies have found a close relationship between labour market flexibility and quality of education with FDI, our study suggests the opposite. However, there is a moderate correlation between the quality of research and availability of foreign firms in Kosovo.

Regarding the poor attraction that Kosovo has towards FDIs, we suggest that education should be considered as the government’s main investment. Better education system leads to highly educated population which leads to attracting foreign investors in the country. The country should improve legislation on foreign investments, making it consistent with international standards, generate investors’ protection, simplify registration procedures (ending bureaucracy), strengthen financial institutions and eliminate trade barriers. Generally, there
is a lot more that could be done in creating a stable environment that could lead to economic development and labour market efficiency.
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8 APPENDIX

8.1 Questionnaire

What is the Global Competitiveness Report?
Launched in 1979, the World Economic Forum’s *Global Competitiveness Report* (GCR) (www.weforum.org/gcr) is widely recognized as the world’s leading assessment of competitiveness covering over 140 economies.

What Is the Executive Opinion Survey?
The Executive Opinion Survey is a major component of *The Global Competitiveness Report*. The Survey gathers valuable information on a broad range of critical aspects of competitiveness for which hard data sources are scarce or non-existent. The results of the Survey are also a key ingredient for our other report series, such as *The Global Information Technology Report, The Travel & Tourism Competitiveness Report, The Global Enabling Trade Report, The Global Gender Gap Report, The Human Capital Report, The Inclusive Growth and Development Report, and The Global Risks Report*.

If you do not know the answer to a question or if the question does not apply, please leave it blank.

Please note that all questions referring to “in your country” denote the country in which you currently work.

Please answer the questions in view of the situation in your country in international comparison.

Confidentiality: we realize that some of the questions address potentially sensitive information. Confidentiality of survey respondents is ensured. Individual responses are not identified.

This survey requires approximately 40 minutes to complete.
I. About Your Company

1.01 In what country, state/province, and city do you currently work?
Country: _____  State/Province: _____  City: ____

1.02 In what country are your company's global headquarters located?
Country: _____

1.03 Are you a citizen of the country in which you currently work?
☐ Yes  ☐ No

1.04 Did you complete the Executive Opinion Survey last year (EOS 2015)?
☐ Yes  ☐ No

1.05 What is the approximate number of employees in your company?

|                | < 50 | 50–150 | 151–500 | 501–1,000 | 1,001–5,000 | > 5,000 |
|----------------|------|--------|---------|-----------|-------------|--------|
| a. In your country: | ☐    | ☐      | ☐       | ☐         | ☐           | ☐      |
| b. Globally:      | ☐    | ☐      | ☐       | ☐         | ☐           | ☐      |

1.06 Please indicate (roughly) the percentage of your company that is:

- Owned by the domestic private sector: _____ %
- State-owned: _____ %
- Foreign-owned: _____ %

1.07 What is your company's main activity (please select only one response):
☐ Agriculture  ☐ Industry: Manufacturing  ☐ Industry: Non-Manufacturing
☐ Services  ☐ Other, please specify: ________

II. Most Problematic Factors for Doing Business

2.01 From the following list, please select the five most problematic factors for doing business in your country and rank these five factors from 1 (most problematic) to 5:

- a._____ Limited access to financing  i.__________ Government instability/coups
- b._____ Restrictive labor regulations  j.__________ Crime and theft
- c._____ Foreign currency regulations  k.__________ Corruption
- d._____ Inadequate infrastructure  l.__________ Complexity of tax regulations
- e._____ Inefficient government bureaucracy  m.__________ High tax rates
- f._____ Inadequately educated workforce  n.__________ Inflation
- g._____ Poor work ethic in the labor force  o.__________ Poor public health
- h._____ Policy instability  p.__________ Insufficient capacity to innovate
Instructions for sections III to XIV

Many of the questions ask you to check a box number according to your opinion (using “☑” or “☐”). If you do not know the answer, please leave it blank. Most questions appear in the following format:

10.18 In your country, to what extent is intellectual property protected?

| Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | To a great extent |
|------------|---|---|---|---|---|---|---|-------------------|

Checking 1: means you **completely** agree with the answer on the left-hand side
Checking 2: means you **largely** agree with the answer on the left-hand side
Checking 3: means you **somewhat** agree with the answer on the left-hand side
Checking 4: means your opinion is **indifferent** between the two answers
Checking 5: means you **somewhat** agree with the answer on the right-hand side
Checking 6: means you **largely** agree with the answer on the right-hand side
Checking 7: means you **completely** agree with the answer on the right-hand side

Please check only one number per question unless specified otherwise.

III. Infrastructure

3.01 How do you assess the general state of infrastructure (e.g., transport, communications and energy) in your country?

Extremely underdeveloped—among the worst in the world

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extensive and efficient—among the best in the world |

3.02 In your country, how is the quality (extensiveness and condition) of transport infrastructure for the following:

Extremely inefficient—among the worst in the world

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely efficient—among the best in the world |

a. Roads

b. Railroads

c. Airports

d. Seaports

(for landlocked countries: Please assess access to seaports)
3.03 In your country, how efficient (ie. frequency, punctuality, speed, price) are the following transport services?

Extremely inefficient-among the worst in the world | 1 2 3 4 5 6 7 | Extremely efficient-among the best in the world

a. Ground transportation (buses, subways, taxis)  
   - | | |
   - | | |
   - | | |
   - | | |
   - | | |
   - | | |

b. Train services  
   - | | |
   - | | |
   - | | |
   - | | |
   - | | |
   - | | |

c. Air transport services  
   - | | |
   - | | |
   - | | |
   - | | |
   - | | |
   - | | |

d. Seaport services (for landlocked countries: Please assess access to seaport services)  
   - | | |
   - | | |
   - | | |
   - | | |
   - | | |
   - | | |

3.04 In your country, how reliable is the electricity supply (lack of interruptions and lack of voltage fluctuations)?

Extremely unreliable | 1 2 3 4 5 6 7 | Extremely reliable

3.05 In your country, how reliable is the water supply (lack of interruptions and flow fluctuations)?

Extremely unreliable | 1 2 3 4 5 6 7 | Extremely reliable

IV. Technology

4.01 In your country, to what extent are the latest technologies available?

Not at all | 1 2 3 4 5 6 7 | To a great extent

4.02 In your country, to what extent do information and communication technologies (ICTs) enable access for all individuals to basic services (e.g., health, education, financial services, etc.)?

Not at all | 1 2 3 4 5 6 7 | To a great extent

4.03 To what extent does foreign direct investment (FDI) bring new technology into your country?

Not at all | 1 2 3 4 5 6 7 | To a great extent

4.04 In your country, to what extent do ICTs enable new business models?

Not at all | 1 2 3 4 5 6 7 | To a great extent
4.05 In your country, to what extent do businesses use ICTs for transactions with other businesses?

Not at all 1 2 3 4 5 6 7 To a great extent

4.06 In your country, to what extent do businesses use the Internet for selling their goods and services to consumers?

Not at all 1 2 3 4 5 6 7 To a great extent

4.07 In your country, to what extent do ICTs enable new organizational models (e.g., virtual teams, remote working, telecommuting) within companies?

Not at all 1 2 3 4 5 6 7 To a great extent

4.08 In your country, how widely are virtual social networks used (e.g., Facebook, Twitter, LinkedIn)?

Not used at all 1 2 3 4 5 6 7 Used extensively

4.09 To what extent does the government have a clear implementation plan for utilizing ICTs to improve your country's overall competitiveness?

Not at all – there is no plan 1 2 3 4 5 6 7 To a great extent – there is a clear plan

4.10 In your country, to what extent does the use of ICTs by the government improve the quality of government services to the population?

Not at all 1 2 3 4 5 6 7 To a great extent

4.11 How developed are your country’s laws relating to the use of ICTs (e.g., e-commerce, digital signatures, consumer protection)?

Not developed at all 1 2 3 4 5 6 7 Extremely well developed

4.12 In your country, how successful is the government in promoting the use of ICTs? Not successful at all 1 2 3 4 5 6 7 Extremely successful

4.13 In your country, to what extent do businesses adopt the latest technologies?

Not at all 1 2 3 4 5 6 7 To a great extent
V. Financial Environment

5.01 In your country, to what extent does the cost of financial services (e.g., insurance, loans, trade finance) impede business activity?

Impedes business to 

a great extent

1 2 3 4 5 6 7 Not at all

5.02 In your country, to what extent does the financial sector provide the products and services that meet the needs of businesses?

Not at all

1 2 3 4 5 6 7 To a great extent

5.03 In your country, how do you assess the soundness of banks?

Extremely low – banks may require recapitalization

1 2 3 4 5 6 7 Extremely high-banks are generally healthy with sound balance sheets

5.04 In your country, how easy is it for businesses to obtain a bank loan?

Extremely difficult

1 2 3 4 5 6 7 Extremely easy

5.05 In your country, how easy is it for start-up entrepreneurs with innovative but risky projects to obtain equity funding?

Extremely difficult

1 2 3 4 5 6 7 Extremely easy

5.06 In your country, to what extent can companies raise money by issuing shares and/or bonds on the capital market?

Not at all

1 2 3 4 5 6 7 To a great extent

5.07 In your country, to what extent do regulators ensure the stability of the financial sector?

Not at all

1 2 3 4 5 6 7 To a great extent

5.08 In your country, how strong are financial auditing and reporting standards?

Extremely weak

1 2 3 4 5 6 7 Extremely strong

5.09 In your country, to what extent are the interests of minority shareholders protected by the legal system?

Not protected at all

1 2 3 4 5 6 7 Fully protected
5.10 In your country, to what extent can small- and medium-sized enterprises (SMEs) access finance they need for their business operations through the financial sector?

| Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | To a great extent |
|------------|---|---|---|---|---|---|---|------------------|

VI. Foreign Trade and Investment

6.01 In your country, to what extent do non-tariff barriers (e.g., health and product standards, technical and labeling requirements, etc.) limit the ability of imported goods to compete in the domestic market?

| Strongly limited | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Do not limit at all |
|------------------|---|---|---|---|---|---|---|---------------------|

6.02 In your country, how efficient are customs procedures (related to the entry and exit of merchandise)?

| Extremely inefficient | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely efficient |
|------------------------|---|---|---|---|---|---|---|---------------------|

6.03 In your country, how efficient are changes between different modes of transport for cargo (e.g., from port to rail or airport to roads)?

| Extremely inefficient | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely efficient |
|------------------------|---|---|---|---|---|---|---|---------------------|

6.04 In your country, how prevalent is foreign ownership of companies?

| Extremely rare | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extremely prevalent |
|----------------|---|---|---|---|---|---|---|---------------------|

6.05 In your country, how restrictive are rules and regulations on foreign direct investment (FDI)?

| Extremely restrictive | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Not restrictive at all |
|-----------------------|---|---|---|---|---|---|---|-----------------------|

6.06 In your country, how much does the time required for border clearance of imported goods fluctuate?

| Fluctuates significantly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Hardly fluctuates at all |
|--------------------------|---|---|---|---|---|---|---|--------------------------|

6.07 In your country, to what extent do taxes reduce the incentive to invest?

| To a great extent | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Not at all |
|-------------------|---|---|---|---|---|---|---|----------------|

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### VII. Domestic Competition

#### 7.01 In your country, how intense is competition in the local markets?
- Not intense at all 1 2 3 4 5 6 7 Extremely intense

#### 7.02 In your country, how competitive is the provision of the following services:
- Not competitive at all 1 2 3 4 5 6 7 Extremely competitive
  - a. Professional services
    - (legal services, accounting, engineering, etc.)
  - b. Retail services
  - c. Network sector
    - (telecommunications, utilities, postal, transport, etc.)

#### 7.03 In your country, on what basis do buyers make purchasing decisions?
- Based solely on the lowest price 1 2 3 4 5 6 7 Based on sophisticated performance attributes

#### 7.04 In your country, how numerous are local suppliers?
- Largely non-existent 1 2 3 4 5 6 7 Extremely numerous

#### 7.05 In your country, how do you assess the quality of local suppliers?
- Extremely poor quality 1 2 3 4 5 6 7 Extremely high quality

#### 7.06 In your country, how effective are anti-monopoly policies at ensuring fair competition?
- Not effective at all 1 2 3 4 5 6 7 Extremely effective

#### 7.07 In your country, how do you characterize corporate activity?
- Dominated by a few 1 2 3 4 5 6 7 Spread among many firms business groups

#### 7.08 In your country, how widespread are well-developed and deep clusters (geographic concentrations of firms, suppliers, producers of related products & services, and specialized institutions in a particular field)?
- Non-existent 1 2 3 4 5 6 7 Widespread in many fields
7.09 In your country, how much economic activity do you estimate to be undeclared or unregistered?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Most economic activity is undeclared or unregistered | | | | | | | |

Most economic activity is declared or registered

### VIII. Business Operations and Innovation

8.01 On what is the competitive advantage of your country's companies in international markets based?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Primarily based on low-cost labour or natural resources | | | | | | | |

Primarily based on unique products and processes

8.02 In your country, how broad is companies’ presence in the value chain?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Narrow, primarily involved individual steps of the value chain (e.g. resource extraction or production) | | | | | | | |

Broad, present across the entire value chain (e.g. including production and marketing, distribution, design, etc.)

8.03 In your country, to what extent do domestic companies control the international distribution of their products?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Not at all | | | | | | | |

To a great extent

8.04 In your country, how sophisticated are production processes?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Not at all – production uses labour intensive processes | | | | | | | |

Highly – production uses latest technologies

8.05 In your country, who holds senior management positions in companies?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Usually relatives or friends without regard to merit | | | | | | | |

Mostly professional managers chosen for merit and qualifications

8.06 In your country, to what extent does senior management delegate authority to subordinates?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Not at all | | | | | | | |

To a great extent

8.07 In your country, to what extent is management accountable to investors and boards of directors?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Not at all | | | | | | | |

To a great extent
8.08 In your country, how well do companies treat customers?

Not at all | 1 2 3 4 5 6 7 | To a great extent

8.09 In your country, to what extent do companies have the capacity to innovate?

Not at all | 1 2 3 4 5 6 7 | To a great extent

8.10 In your country, to what extent do companies invest in research and development (R&D)?

Do not invest at all in R&D | 1 2 3 4 5 6 7 | Invest heavily in R&D

8.11 In your country, how successful are companies in using marketing to differentiate their products and services?

Not a successful at all | 1 2 3 4 5 6 7 | Extremely successful

8.12 In your country, to what extent do companies encourage employees to generate new ideas?

Not at all | 1 2 3 4 5 6 7 | To a great extent

8.13 In your country, to what extent do companies turn ideas into commercially successful new products, services, or business models?

Not at all | 1 2 3 4 5 6 7 | To a great extent

8.14 In your country, to what extent do people collaborate and share ideas within a company?

Not at all | 1 2 3 4 5 6 7 | To a great extent

8.15 In your country, to what extent do companies embrace risky or disruptive business ideas?

Not at all | 1 2 3 4 5 6 7 | To a great extent

8.16 In your country, how successful are domestic companies at building international brands?

Not successful at all | 1 2 3 4 5 6 7 | Extremely successful

8.17 In your country, to what extent do new companies with innovative ideas grow rapidly?

Not at all | 1 2 3 4 5 6 7 | To a great extent
8.18 In your country, to what extent do government purchasing decisions foster innovation?
Not at all 1 2 3 4 5 6 7 To a great extent

8.19 In your country, to what extent do people have an appetite for entrepreneurial risk?
Not at all 1 2 3 4 5 6 7 To a great extent

8.20 In your country, to what extent do business and universities collaborate on research and development (R&D)?
Do not collaborate at all 1 2 3 4 5 6 7 Collaborate extensively

8.21 In your country, to what extent are business services available (research, marketing, business support services, etc.)?
Not at all 1 2 3 4 5 6 7 To a great extent

8.22 In your country, to what extent do companies collaborate in sharing ideas and innovating?
Not at all 1 2 3 4 5 6 7 To a great extent

8.23 In your country, to what extent are people exposed to ideas from outside their environment/community?
Not at all 1 2 3 4 5 6 7 To a great extent

IX. Security

9.01 In your country, to what extent does the threat of terrorism impose costs on businesses?
To a great extent, imposes 1 2 3 4 5 6 7 No costs at all huge costs

9.02 In your country, to what extent does the incidence of crime and violence impose costs on businesses?
To a great extent, imposes 1 2 3 4 5 6 7 No costs at all huge costs
9.03 In your country, to what extent does organized crime (mafia-oriented racketeering, extortion) impose costs on businesses?
To a great extent, imposes huge costs
1 2 3 4 5 6 7
No costs at all

9.04 In your country, to what extent can police services be relied upon to enforce law and order?
Not at all
1 2 3 4 5 6 7
To a great extent

X. Governance

10.01 How effective is the legislative process in your country?
Not effective at all – it is deadlocked
1 2 3 4 5 6 7
Extremely effective - lawmakers can reach agreement in due time

10.02 In your country, how efficient is the government in providing public goods and services?
Extremely inefficient
1 2 3 4 5 6 7
Extremely efficient

10.03 In your country, how efficient are the legal and judicial systems for companies in settling disputes?
Extremely inefficient
1 2 3 4 5 6 7
Extremely efficient

10.04 In your country, how easy is it for private businesses to challenge government actions and/or regulations through the legal system?
Extremely difficult
1 2 3 4 5 6 7
Extremely easy

10.05 In your country, to what extent does the government ensure a stable policy environment for doing business?
Not at all
1 2 3 4 5 6 7
To a great extent

10.06 In your country, how easy is it for companies to obtain information about changes in government policies and regulations affecting their activities?
Extremely difficult
1 2 3 4 5 6 7
Extremely easy
10.07 In your country, how do you rate the ethical standards of politicians?
Extremely low

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
Extremely high

10.08 In your country, to what extent do government officials show favoritism to well-connected firms and individuals when deciding upon policies and contracts?
Show favoritism to a great extent

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Do not show favoritism at all

10.09 In your country, to what extent do fiscal measures (subsidies, tax breaks, etc.) distort competition?
Distort competition to a great extent

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Do not distort competition at all

10.10 In your country, how do you assess the agricultural policy?
Excessively burdensome for the economy

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Balances well the interests of taxpayers, consumers, and producers

10.11 In your country, how burdensome is it for companies to comply with public administration’s requirements (e.g., permits, regulations, reporting)?
Extremely burdensome

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Not burdensome at all

10.12 In your country, to what extent are property rights, including financial assets, protected?
Not at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
To a great extent

10.13 In your country, how free is the press?
Totally restricted

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Completely free

10.14 In your country, how independent is the judicial system from influences of the government, individuals, or companies?
Not independent at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Entirely independent

10.15 In your country, how common is illegal diversion of public funds to companies, individuals or groups?
Very commonly occurs

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Never occurs
10.16 In your country, how do you rate the corporate ethics of companies (ethical behavior in interactions with public officials, politicians and other firms)?

| Extremely poor – among the worst in the world | Excellent – among the best in the world |
|-----------------------------------------------|----------------------------------------|
| 1 2 3 4 5 6 7                                 |                                         |

10.17 In your country, to what extent do individuals have the opportunity to improve their economic situation through their personal efforts regardless of the socioeconomic status of their parents?

| Not at all | To a great extent |
|------------|-------------------|
| 1 2 3 4 5 6 7 |                   |

10.18 In your country, to what extent is intellectual property protected?

| Not at all | To a great extent |
|------------|-------------------|
| 1 2 3 4 5 6 7 |                   |

10.19 In your country, how common is it for companies to make undocumented extra payments or bribes in connection with the following:

| Very common | 1 2 3 4 5 6 7 | Never occurs |
|-------------|--------------|--------------|
| a. Imports and exports | ☐ ☐ ☐ ☐ ☐ ☐ ☐ |              |
| b. Public utilities (e.g. telephone, electricity) | ☐ ☐ ☐ ☐ ☐ ☐ ☐ |              |
| c. Tax payments | ☐ ☐ ☐ ☐ ☐ ☐ ☐ |              |
| d. Awarding of public Contracts and licenses | ☐ ☐ ☐ ☐ ☐ ☐ ☐ |              |
| e. Obtaining favorable judicial decisions | ☐ ☐ ☐ ☐ ☐ ☐ ☐ |              |

XI. Education and Human Capital

11.01 In your country, how well does the education system meet the needs of a competitive economy?

| Not well at all | Extremely well |
|----------------|---------------|
| 1 2 3 4 5 6 7 |               |

11.02 In your country, how do you assess the following:

| Extremely poor – among the worst in the world | Excellent – among the best in the world |
|-----------------------------------------------|----------------------------------------|
| 1 2 3 4 5 6 7                                 |                                         |

| a. Quality of primary schools | ☐ ☐ ☐ ☐ ☐ ☐ ☐ |
| b. Quality of math and        | ☐ ☐ ☐ ☐ ☐ ☐ ☐ |
science education

c. Quality of business

11.03 In your country, how available are high-quality, professional training services?
Not available at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

Widely available

11.04 In your country, to what extent is the Internet used in schools for learning purposes?
Not at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

To a great extent

11.05 In your country, how do you assess the quality of scientific research institutions?
Extremely poor – among the worst in the world

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

Extremely good – among the best in the world

11.06 In your country, to what extent can companies find people with the skills required to fill their vacancies?
Not at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

To a great extent

11.07 In your country, to what extent is pay related to employee productivity?
Not at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

To a great extent

11.08 In your country, to what extent do companies invest in training and employee development?
Not at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

To a great extent

11.09 In your country, to what extent do regulations allow flexible hiring and firing of workers?
Not at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

To a great extent

11.10 To what extent does your country retain talented people?
Not at all – the best and brightest leave to pursue opportunities abroad

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

To a great extent – the best and brightest stay and pursue opportunities in the country

11.11 To what extent does your country attract talented people from abroad?
Not at all

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

To a great extent
11.12 **In your country, to what extent are scientists and engineers available?**
Not available at all | Widely available
---|---
1 2 3 4 5 6 7

11.13 **In your country, to what extent do companies provide women with the same opportunities as men to rise to positions of leadership?**
Not at all | To a great extent
---|---
1 2 3 4 5 6 7

11.14 **In your country, how do you characterize labor-employer relations?**
Generally confrontational | Generally cooperative
---|---
1 2 3 4 5 6 7

11.15 **In your country, how are wages generally set?**
By a centralized bargaining process | By each individual company
---|---
1 2 3 4 5 6 7

11.16 **In your country, to what extent do taxes and social contributions reduce the incentive to work?**
To a great extent | Not at all
---|---
1 2 3 4 5 6 7

11.17 **In your country, how restrictive are regulations related to the hiring of foreign labor?**
Highly restrictive | Not restrictive at all
---|---
1 2 3 4 5 6 7

11.18 **In your country, for similar work, to what extent are wages for women equal to those of men?**
Not at all – significantly below those of men | Fully – equal to those of men
---|---
1 2 3 4 5 6 7

11.19 **In your country, to what extent does a formal social safety net provide protection to the general population from economic insecurity in the event of job loss or disability?**
Not at all | Provides full protection
---|---
1 2 3 4 5 6 7

11.20 **In your country, how do you assess the quality of vocational training?**
Extremely poor – among the worst in the world | Excellent – among the best in the world
---|---
1 2 3 4 5 6 7
11.21 In your country, to what extent do graduating students possess the skills needed by businesses at the following levels:

| Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | To a great extent |
|------------|---|---|---|---|---|---|---|-------------------|
| a. Secondary education | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |                  |
| b. University-level | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |                  |

11.22 In your country, to what extent do labor market policies help unemployed people to reskill and find new employment (including skills matching, retraining, etc.)?

| Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | To a great extent |
|------------|---|---|---|---|---|---|---|-------------------|

11.23 In your country, how do you assess the style of teaching?

- Frontal, teacher based and focused on memorizing
  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Encourages creative and critical individual thinking |

11.24 In your country, to what extent do people move to other parts of the country for professional reasons?

| Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | To a great extent |
|------------|---|---|---|---|---|---|---|-------------------|

11.25 In your country, how much of the adult population has a university degree?

- Nobody has a university degree
  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Every adult has a university degree |

XII. Health

12.01 In your country, how accessible is healthcare to all individuals?

- Limited – only privileged have access to healthcare
  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Universal – all individuals have access to healthcare |

12.02 In your country, how do you assess the quality of healthcare (public and private) provided to ordinary citizens?

- Extremely poor – among the worst in the world
  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Excellent – among the best in the world |
12.03 In your country, to what extent does health-related absence cost on businesses (consider both communicable and non-communicable diseases)?
To a great extent 1 2 3 4 5 6 7 Not at all

XIII. Travel and Tourism

13.01 How high a priority is the development of the travel and tourism industry for the government of your country?
Not a priority at all 1 2 3 4 5 6 7 A top priority

13.02 How effective are your country’s marketing and branding campaigns in attracting tourists?
Not effective at all 1 2 3 4 5 6 7 Extremely effective

13.03 In your country, to what extent is the travel and tourism sector developed in an environmentally sustainable way?
Not at all 1 2 3 4 5 6 7 To a great extent

13.04 In your country, how do you assess the quality of tourism infrastructure (e.g., hotels, resorts, entertainment facilities)?
Very poor – among the worst in the world 1 2 3 4 5 6 7 Excellent – among the best in the world

13.05 To what extent do international tourists visit your country mainly for its natural assets (i.e., parks, beaches, mountains, wildlife, etc.)?
Not at all 1 2 3 4 5 6 7 To a great extent

XIV. Environment

14.01 How do you assess the stringency of your country’s environmental regulations?
Very lax – among the worst in the world 1 2 3 4 5 6 7 Among the world’s most stringent
14.02 In your country, how do you assess the quality of the natural environment? 
Extremely poor – among the worst in the world
Among the world’s most pristine

14.03 In your country, how do you assess the enforcement of environmental regulations? 
Very lax – among the worst in the world
Among the world’s most rigorous

XV. Risks

15.01 From the following list, check the five global risks that you believe to be of most concern for doing business in your country within the next 10 years:

- Asset bubble
- Biodiversity loss and ecosystem collapse
- Critical information infrastructure breakdown
- Cyber attacks
- Data fraud or theft
- Deflation
- Energy price shock
- Extreme weather events
- Failure of climate-change adaptation
- Failure of critical infrastructure
- Failure of financial mechanism or institution
- Failure of national governance
- Failure of urban planning
- Fiscal crises
- Food crises
- Illicit trade
- Inter-state conflict
☐ Large-scale involuntary migration
☐ Manmade environmental catastrophes
☐ Misuse of technologies
☐ Natural catastrophes
☐ Profound social instability
☐ Spread of infectious diseases
☐ State collapse or crisis
☐ Terrorist attack
☐ Unemployment or underemployment
☐ Unmanageable inflation
☐ Water crises
☐ Weapons of mass destruction
Thank you very much for completing this Survey!

We would appreciate it if you would provide us with your contact details, keeping in mind that responses remain confidential:

Respondent Information (optional)
Please staple your business card here or fill in the information below (in print)

Country: _________________________________________________________________
Name: Mr □ Ms □
Position: __________________________________________________________________
Level: □ Top Executive/Owner □ Middle Management & Advisers
       □ Senior Executive/Board Member □ Functional Staff
       □ Head of Business Unit/Head of Region □ Other, specify: ______

Company: __________________________________________________________________
Address: __________________________________________________________________
Postal Code/City: __________________________________________________________________
E-mail: __________________________________________________________________
## 8.2 Correlation Analysis

### Governance (Institutions)

| Correlations | sec1 | sec2 | sec3 | sec4 | Inst1 | Inst2 | Inst3 | Inst4 | Inst5 | Inst6 | Inst7 | Inst8 | Inst9 | Inst10 | Inst11 | Inst12 | Inst13 | Inst14 | Inst15 | Inst16 | Inst17 | Inst18 | Inst19a | Inst20b | Inst21b | Inst22b | Inst23b | Inst24b | Inst25b |
|--------------|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Pearson Correlation | 0.026 | 0.063 | 0.205 | 0.44** | 0.48** | 0.49** | 0.48** | 0.388 | 0.544 | 0.538 | 0.490 | 0.468 | 0.388 | 0.201 | 0.295 | 0.432 | 0.527 | 0.491 | 0.453 | 0.326 | 0.25 | 0.432 | 0.385 | 0.422 | 0.348 | 0.405 | 0.332 | 0.405 |
| **Correlation is significant at the 0.05 level (2-tailed).**

* Cannot be computed because at least one of the variables is constant.

### Education and Human Capital

| Correlations | Edu1 | Edu2a | Edu2b | Edu2c | Edu3 | Edu4 | Edu5 | Edu6 | Edu7 | Edu8 | Edu9 | Edu10 | Edu11 |
|--------------|------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| Pearson Correlation | 0.356 | 0.413 | 0.602 | 0.424 | 0.303 | 0.468 | 0.661 | 0.490 | 0.394 | 0.302 | 0.276 | 0.480 | 0.528 |
| **Correlation is significant at the 0.05 level (2-tailed).**

* Cannot be computed because at least one of the variables is constant.

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### Foreign Trade and Investment

#### Correlations

|        | FDI1 | FDI2 | FDI3 | FDI4 | FDI5 | FDI6 | FDI7 |
|--------|------|------|------|------|------|------|------|
| Edu12  | Pearson Correlation | -0.001 | .281* | .386** | .436** | .327* | 0.106 | -0.055 |
| Edu13  | Pearson Correlation | 0.218 | 0.129 | .415** | .352* | 0.253 | 0.382** | 0.055 |
| Edu14  | Pearson Correlation | 0.052 | 0.01 | -0.132 | -0.097 | 0.052 | -0.025 | -0.125 |
| Edu15  | Pearson Correlation | -0.035 | 0.179 | 0.261 | 0.107 | 0.069 | 0.051 | 0.15 |
| Edu16  | Pearson Correlation | 0.208 | -0.013 | -0.046 | -0.147 | 0.016 | -0.244 | .331* |
| Edu17  | Pearson Correlation | -0.168 | 0.045 | 0.095 | -0.01 | -0.033 | -0.073 | 0.064 |
| Edu18  | Pearson Correlation | 0.168 | -0.042 | 0.239 | -0.071 | .339* | -0.023 | 0.07 |
| Edu19  | Pearson Correlation | -0.019 | -0.082 | .313* | .394** | 0.22 | 0.197 | -0.101 |
| Edu20  | Pearson Correlation | -0.05 | 0.064 | .366** | .413* | 0.155 | 0.196 | -0.177 |
| Edu21a | Pearson Correlation | -0.081 | 0.181 | .287* | .301* | 0.146 | 0.055 | 0.029 |
| Edu21b | Pearson Correlation | 0.05 | 0.26 | .288* | 0.264 | 0.187 | 0.029 | -0.029 |
| Edu22  | Pearson Correlation | -0.076 | 0.207 | .377** | .530** | 0.225 | 0.156 | -0.061 |
| Edu23  | Pearson Correlation | -0.078 | 0.117 | .281* | .284* | 0.147 | 0.182 | -0.219 |
| Edu24  | Pearson Correlation | -0.022 | -0.097 | 0.167 | -0.035 | -0.091 | 0.023 | -0.038 |
| Edu25  | Pearson Correlation | -0.148 | 0.131 | .303* | 0.141 | 0.048 | 0.07 | -0.245 |

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

a Cannot be computed because at least one of the variables is constant.

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### Technology

#### Correlations

|        | Tech1 | Tech2 | Tech3 | Tech4 | Tech5 | Tech6 | Tech7 | Tech8 | Tech9 | Tech10 | Tech11 | Tech12 | Tech13 |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Edu12  | Pearson Correlation | 0.137 | .392** | .380** | .407** | .385** | 0.249 | 0.188 | -0.449** | 0.236 | 0.491** | .499** | .307* |
| Edu13  | Pearson Correlation | 0.173 | .285* | .368** | .352** | .344* | 0.079 | 0.163 | -0.224 | .402** | 0.142 | 0.401** | .569** | 0.112 |
| Edu14  | Pearson Correlation | 0.168 | 0.155 | 0.148 | -0.018 | 0.03 | 0.073 | 0.204 | 0.113 | -0.091 | .283* | -0.074 | 0.014 | 0.018 |
| Edu15  | Pearson Correlation | .301* | 0.176 | 0.26 | 0.122 | -0.006 | -0.077 | 0.05 | -0.086 | 0.135 | 0.217 | -0.081 | 0.103 | 0.014 |
| Edu16  | Pearson Correlation | 0.189 | -0.103 | 0.237 | 0.086 | -0.039 | -0.156 | -0.113 | -0.033 | -0.035 | 0.174 | -0.315* | -0.087 | -0.192 |
| Edu17  | Pearson Correlation | .359** | -0.064 | 0.22 | 0.037 | -0.14 | -0.218 | -0.102 | 0.015 | 0.189 | .284* | 0.101 | 0.045 | 0.003 |
| Edu18  | Pearson Correlation | -0.06 | -0.034 | -0.018 | 0.057 | 0.089 | 0.06 | 0.088 | -0.226 | 0.128 | -0.102 | 0.187 | 0.202 | -0.139 |
| Edu19  | Pearson Correlation | 0.115 | .363** | .293* | .414** | 0.247 | 0.251 | .324* | -0.078 | .297* | .303* | .288* | .586** | 0.066 |
| Edu20  | Pearson Correlation | .326* | .519** | .315* | .475** | .335* | .358** | .508** | -0.154 | .339* | .386** | .384** | .632** | .307* |
| Edu21a | Pearson Correlation | 0.084 | .453** | .343* | .401** | 0.248 | 0.215 | .321* | -0.215 | .289* | .242 | .320* | .358* | 0.255 |
| Edu21b | Pearson Correlation | -0.053 | .535** | 0.135 | .295* | 0.232 | 0.157 | 0.226 | -0.302* | 0.179 | 0.173 | .418** | 0.258 | .379** |
| Edu22  | Pearson Correlation | 0.188 | .471** | .351* | .512** | .308* | .358** | .354* | -0.203 | .361*** | .326* | .571** | .618** | 0.239 |
| Edu23  | Pearson Correlation | 0.13 | .400** | .330* | .298* | 0.209 | .296* | 0.26 | -0.082 | .283* | 0.211 | 0.179 | .478** | 0.111 |
| Edu24  | Pearson Correlation | 0.127 | -0.036 | 0.03 | -0.101 | -0.019 | 0.139 | -0.019 | 0.043 | 0.027 | -0.133 | -0.171 | -0.037 | 0.079 |
| Edu25  | Pearson Correlation | .348* | 0.246 | 0.062 | 0.282* | .299* | -0.041 | 0.186 | 0.171 | -0.019 | -0.198 | 0.088 | 0.08 | 0.337* |

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

a Cannot be computed because at least one of the variables is constant.
### Business Operations and Innovation

#### Correlations

|   |NrLabour|NrIntLabour|Privatshare|Activity|Inov1|Inov2|Inov3|Inov4|Inov5|Inov6|Inov7|Inov8|Inov9|Inov10|Inov11|Inov12|Inov13|Inov14|Inov15|Inov16|Inov17|Inov18|Inov19|Inov20|Inov21|Inov22|Inov23|
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|Edu12 Pearson Correlation|0.246*|0.166*|0.069|0.211|0.796*|0.205|0.192|0.248|0.248|0.27|0.469**|0.239*|0.798**|0.174|0.299*|0.159|0.599**|0.269**|0.512**|0.256|
|Edu13 Pearson Correlation|-0.070|0.362|-0.125|0.116|0.332*|0.381|0.247|0.378*|0.151|0.146|0.014|0.346**|0.196|0.183|0.305|0.459**|0.303|0.597**|0.467**|0.111|0.136|0.517**|0.367**|0.244|
|Edu14 Pearson Correlation|-0.049|0.274|-0.284|-0.197|0.216|0.152|0.110|0.219|0.101|0.205|0.006|0.263|0.167|0.175|0.113|0.218**|0.053|0.069|0.016|0.064|0.294|0.176|0.106|0.130|
|Edu15 Pearson Correlation|0.219|0.387|-0.196|0.197|0.229|0.186|0.192|0.156|0.197|0.175|0.113|0.218**|0.053|0.069|0.016|0.064|0.294|0.176|0.106|0.130|
|Edu16 Pearson Correlation|0.188|0.145|-0.133|0.151|0.407**|0.177|0.048|0.354|0.203|0.005|0.035|0.201|0.121|0.34|0.289|0.427|0.14|0.117|0.009|0.086|0.389**|0.134|0.002|
|Edu17 Pearson Correlation|-0.065|0.454|-0.164|-0.084|0.086|0.085|0.131|0.075|0.018|0.053|0.08|0.129|0.03|0.012|0.114|0.221|0.005|0.228|-0.110|-0.092|0.143|0.321**|0.119|0.072|
|Edu18 Pearson Correlation|0.051|0.159|-0.225|0.125|0.083|0.08|0.124|0.086|0.088|0.253|0.137|0.188|0.315|0.151|0.25|0.116|0.444**|0.068|0.148|0.038|0.147|0.062|0.118|0.397**|0.157|0.361**|
|Edu19 Pearson Correlation|0.141|0.298**|-0.226|-0.179|0.054|0.315*|0.247|0.252|0.021|0.071|0.147|0.496**|0.219|0.395|0.314|0.531**|0.547**|0.564**|0.350**|0.527**|0.501|0.547**|0.582**|0.529**|0.397**|
|Edu20 Pearson Correlation|-0.034|0.360|-0.268|-0.127|0.053|0.273*|0.325|0.285|0.089|0.217|0.316|0.408**|0.307|0.386|0.549**|0.522**|0.512**|0.264|0.457**|0.037|0.417**|0.326|0.532**|0.431**|
|Edu21a Pearson Correlation|0.236|0.423**|0.152|0.118|0.087|0.248|0.557**|0.494**|0.385|0.195|0.03|0.402|0.439**|0.472**|0.346|0.203|0.317*|0.293|0.341|0.176|0.389**|0.195|0.557**|0.325|0.654**|0.104|
|Edu21b Pearson Correlation|0.377**|0.767*|0.253|0.147|0.113|0.243**|0.026|0.455**|0.231|0.089|0.04|0.369|0.468*|0.303|0.433**|0.377**|0.469**|0.455**|0.364**|0.224|0.545**|0.429**|0.555**|0.157|
|Edu22 Pearson Correlation|0.137|0.872**|-0.071|-0.061|0.317*|0.487**|0.386**|0.424**|0.138|0.121|0.047|0.414**|0.411|0.379|0.303|0.548**|0.352**|0.647**|0.258**|0.111|0.555**|0.432**|0.609**|0.361**|
|Edu23 Pearson Correlation|0.05|0.362|-0.182|-0.141|0.037|0.288|0.388|0.384**|0.094|0.313*|0.101|0.382**|0.329|0.302|0.344|0.368|0.469**|0.341**|0.146|0.423**|0.086|0.579**|0.326**|0.382**|0.006|
|Edu24 Pearson Correlation|0.287|0.188|0.089|0.324*|0.006|0.117|-0.017|0.095|0.073|0.025|0.125|0.074|0.498|0.115|0.383|0.014|0.132|0.149|0.014|0.146|0.014|0.579**|0.326**|0.382**|0.006|
|Edu25 Pearson Correlation|0.115|0.129|0.086|0.338|0.038|0.089|0.015|0.096|0.128|0.34|0.155|0.223|0.008|0.126|0.157|0.357|0.127|0.247**|0.032|0.155|0.058|0.125|0.022|0.204|0.204|0.119|0.254|

**Correlation is significant at the 0.01 level (2-tailed).**

*Correlation is significant at the 0.05 level (2-tailed).*

Cannot be computed because at least one of the variables is constant.