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Factors that Enable and Constrain the Growth of Firms: the case of Kosovo

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for the degree of
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in Birkbeck, University of London*

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Abstract

This thesis provides theoretically grounded new evidence on the factors that enable and constrain the growth of firms in Kosovo. The investigation is carried out by employing diverse sets of data, theoretical frameworks, and methodological approaches. It is built upon four main dimensions. The first dimension explores whether firm dynamics has any impact on the growth of firms in the economy of Kosovo. The object of analysis is the dynamics of incumbent firms; newly born firms; firms that exited from the market during the last four years, and characteristics and patterns of firm survival. The findings indicate that the economy of Kosovo is characterised by a very low level of firm dynamics. The results suggest that this economy is very slow, in which the impact of the “creative destruction” process is less prominent, and as a result it has less impact on the growth of firms.

The second dimension investigates internal factors that differentiate business performance of firms in Kosovo’s economy. The investigation process is carried out by combining two theoretical frameworks: the resource-based theory of the firm and the managerial practices approach. The purpose was to find out whether resources (inputs), managerial practices and organisational capabilities have any effect on the performance variability of firms. Findings indicate that managerial practices play a crucial role in the performance variability and seem to be equivalent to production capabilities. Organisational capabilities also appear to be differentiating factors to the performance variability, but they are more truncated.

The third dimension addresses the impact of business environment on the growth of firms in Kosovo. The theoretical perspective used is growth diagnostics, which provides a flexible framework to analyse business environment constraints, by taking full account of a country’s specific circumstances. The findings show that the business environment in Kosovo provides little incentives for firm growth. Further, empirical evidence shows that the business environment in Kosovo is characterised by low appropriability, with a high cost of capital, and in which complementary factors in the form of human capital are scarce.

The fourth dimension uses the theory of social conditions of innovative enterprise to investigate factors that enable or constrain the firm innovation in the Kosovo’s economy. Some of the variables used in the social conditions methodology overlap with the growth diagnostics and with resource-based theory and managerial practices approach. But at the same time these variables are not identical factors. By using this theoretical framework, this study looks at social conditions which serve as the bedrock for the emergence of innovative firms as one of the main drivers of economic growth. Findings show that effects of social conditions are vital and as such should be accounted for when analysing business factors related to the growth of firms.

Drawing on the results obtained from the analysis, this study argues that growth of firms is not just a macro or a micro issue, but the growth derives from the interaction of both macro and micro factors. This is why the investigation process is carried out by integrating different perspectives to understand the macro and micro factors and how they affect the growth of firms. Different frameworks are used to improve (illuminate) our understanding of these macro and micro interactions in relation to the growth of firms in less developed economies such as the economy of Kosovo.

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« I dedicate this thesis to my dad and mom who have passed away »

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CHAPTER 1

1. Introduction

The notion that the business environment in which firms operate may have a substantial effect on their performance has received huge attention in the literature (Carlin *et al.*, 2006). Firms in any economy respond to their environments in ways that, in most cases, add value (Carlin and Seabright, 2007). They endeavour to transform inputs into outputs at a lower cost than the price they sell them in the marketplace. The conditions under which this process of transformation takes place are influenced by the technology the firms use and the extent of competition in the market. But there are situations when two firms use similar technology, operate in similar competitive markets, and may have different productivity, despite having the same inputs; that is, one can produce more valuable products than the other. The performance variability may be due to factors internal to the firm, such as different organisational capabilities, or the managerial practices employed, as well as factors that are imposed on firms externally. The latter factors in literature are usually called the business environment factors. This research study intends to investigate factors that influence the survival and the growth of firms from both internal and external perspectives.

The units of analysis in this study are small and medium-sized firms (hereafter SMEs) that operate in Kosovo. A substantial number of research studies have been conducted to assess the role that SMEs play in economic growth. The empirical evidence generated suggests that this category of firms is vitally important for a sustainable economic growth for both high-income and low-income economies. The strategic importance of SMEs today is acknowledged by governments and policy makers all over the world (Smallbone and Welter, 2001a). For SMEs to succeed, a favourable business environment is needed. Identifying and implementing the policies that enable the creation of this favourable business environment has become a strategic goal for governments in advanced as well as less developed countries alike. Creation of a conducive business environment for the SME growth remains one of the main avenues for building a vibrant and competitive private sector for many economies worldwide (Cuckovic and Bartlett, 2007).

There are many reasons why SME sector is so vital. At least there are four core arguments related to the importance of SMEs. **First**, empirical evidence shows that this category of firms represents the most dominant business type in the overall firm population. Although accurate and up-to-date information about the structure of population of firms is not easy to obtain, according to Ayyagari *et al.* (2011) more than 95 per cent of the firms across the world are SMEs. The percentage varies across different regions and different countries but in market economies even the lowest shares are still very high. For instance, among the industrial countries Japanese economy is considered to have the highest proportion of SMEs, accounting for more than 99 per cent of total structure of firms (EIU, 2010). In India, the percentage of SMEs in the total structure of firms is around 80 per cent (Ghatak, 2010), while in South Africa the formal SME business entities account for around 91 per cent (Abor and Quartey, 2010).

An important aspect related to SMEs is their informality. The empirical evidence shows that advanced economies have larger SME sectors but smaller informal sectors than less advanced economies. In their study Ayyagari *et al.* (2003) argue that history and legal tradition can play a very important role with respect to the degree to which SMEs sector is informal. According to them, former Soviet countries tend to have disproportionately small SME sectors, even when controlling for per capita income. Similarly, Batini *et al.* (2010) point out that a great deal of firm activity takes place not among 'formal' SMEs but in the informal economy, and that the two sectors constantly flow in and out of each other. Further evidence provided by Ayyagari *et al.* (2003) suggests that the combined share of formal SMEs and the informal sector is fairly stable across country income groups, with activities shifting from the informal to the formal economy as markets and their institutions develop and regulations are eased. With regard to the Kosovo's economy, SMEs comprise 99 per cent of total firms' population.¹

The business activities of SMEs are seen to play a considerable role in the firm dynamics as well. According to Block *et al.* (2009) by generating a steady flow of new entrants to and exits from business sectors, smaller firms help to drive competition and force the incumbents to become more productive or more innovative, and SMEs are themselves credited with developing and commercialising the majority of innovative products and services in use today. Even though there is no readily available empirical evidence (Beck *et al.*, 2005), in the light of their contribution to the dynamics of the global economy, the SME sector is seen as key driver of economic development (Bosma and Levie, 2010), as well as one of major contributors in the fight against poverty globally (Koshy and Prasad 2007).

The **Second** aspect of the importance of SMEs is related to the contribution of this sector to the GDP. The contribution of SMEs varies substantially across countries. According to Ayyagari *et al.*, (2003), this contribution varies from 16 per cent in low-income countries where the SME sector is considered to be large but predominantly informal, to 51 per cent in high-income countries.² In one of their reports for the European Commission, Wymenga *et al.* (2011) argue that the contribution of SMEs to overall output in general is lower than larger companies. This is so because the former tend to be more labour intensive than the latter, therefore smaller firm typically achieve lower productivity (Wymenga *et al.*, 2011).

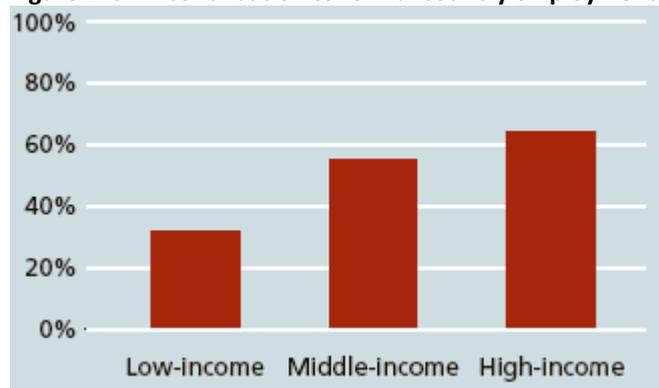
The **Third** argument is related to employment. By being more labour intensive business entities, SMEs provide a substantial contribution to employment. According to a report released by the Organisation for Economic Co-operation and Development (2014), SMEs play a central role in creating jobs and enhancing growth and innovation. According to the same report, across 18 OECD countries and over 10 years (2001 – 2010), SMEs employed on average 65 per cent of the workforce and account for 75 per cent of job creation and 75 per cent of job destroyed.

¹ The data are obtained from: Report on SMEs in Kosovo in 2014; issued by Kosovo SME Promotion Program http://www.eciks.org/repository/docs/Report_on_State_of_SMEs_in_Kosovo_2014_99378.pdf

² Ayyagari, Beck, and Demirgüç-Kunt (2003); Note that these estimates include formalized microenterprises as SMEs

In one of their recent studies, Ayyagari *et al.* (2011) show that these figures in low-income countries tend to be smaller, especially where the informal sector is large; but the contribution of this sector to employment is still significant. By using the median contributions of SMEs to formal employment from a sample of low-, middle-, and high-income countries, Figure 1.1 below illustrates the importance of the SME sector to employment level. The findings show that the highest SME contribution to employment is in high-income countries with around 62 percent.

Figure 1. SME contribution to formal country employment (median values)



Source: Ayyagari, Beck, and Demirgüç-Kunt (2003)

There were other studies (e.g. La Porta and Shleifer, 2008) which showed evidence that in developing countries informal firms account for a large portion of economic activity. However, Ayyagari *et al.* (2011) argue that despite the fact that there is a large number of informal firms operating in developing economies, growth derives from the creation of highly productive formal firms. According to them, informal firms are small and extremely unproductive. Their findings suggest that small firms are the smallest contributors to employment across countries, but the employment contribution of SMEs is comparable to that of large firms. In the median country, firms with less than 20 employees employ only 16.48 per cent of the total permanent, full-time employment in the country. However, when examined both small and medium enterprises (i.e. less than 99 employees), the mean and median employment shares was 47.94 percent and 45.45 percent respectively, while the corresponding mean and median employment shares for large firms (more than 100 employees) were similar at 52.06 per cent and 54.55 per cent respectively.

Ayyagari *et al.* (2011:3) found evidence that while small firms do not employ the largest number of people, they generate the most new jobs, across country income groups. More specifically, their findings suggest that small firms with less than 20 employees generate 45.34% of the new jobs. Even in countries that had an aggregate net job loss, they show evidence that small firms with less than 20 employees to be significant job creators (36.54%).

With regard to the contribution of SMEs to the total employment in Kosovo, the recent evidence suggests that the SME sector overall, i.e. firms with up to 249 persons employees comprise more than 80 per cent of employment, while the share of large firms is less than 20 per cent.³

The fourth core argument is related to the role that SMEs play in the innovation processes. There is evidence which shows that the SME sector has an important role in the process of invention and diffusion of innovation, and in establishing competitive national innovation systems (Cuckovic and Bartlett, 2007: 16; Piech, 2004; Baumol, 2004; Radošević and Mickiewicz (2003). The SME contribution partly derives through the collaboration with larger corporate sector, where SMEs become embedded in the supply chains of larger firms (ACCA 2010). The collaboration between larger and SMEs spurs the latter ones to improve their own human and technological capital, thus improving their own productivity and performance (Lawton Smith and Dickson, 2003).

Though the SME sector accounts for one of fundamental contributors to employment in developing countries, it is considered that in general they are less productive than their larger counterparts, making their contribution to economic growth less evident (Ayyagari *et al.*, 2011). Only a small proportion of them manage to achieve a rapid growth and create new jobs and economic development (Schrör, 2005). This is perhaps due to the fact that SME sector encounters significant challenges to grow. In spite of an extensive evidence generated by many research studies, it is considered that we still know little about the SME growth factors (Nichter and Goldmark, 2009; Storey and Greene, 2010).

Many recent research studies have been devoted to understanding the factors that enable and constrain the growth of SMEs. A starting point for understanding the growth constraints of SMEs comes in 1965; when Stanley and Morse addressed the development of small firms. The authors argued that enterprises of the poor do not prosper, and even when they do prosper, it is not for long. Also small firms never manage to grow beyond a certain point, as if there were a physical barrier between the small and medium sized range that is impossible to cross (Stanley and Morse, 1965). Many other research studies point to a number of internal and external factors which enable and constrain the growth of firms. Studies have revealed various growth patterns from a wide range of countries. In general, empirical evidence shows that a favourable business environment helps to promote the growth of SMEs. This evidence also indicates that firms operating in less developed countries face a tougher business environment than their counterparts in the developed world. Though this is probably not the only explanation of why they do not grow, because these firms may be tied to local demand and also they may be part of social and not only economic fabric of these economies.

There is extensive evidence which suggests that internal factors, such as the quality of human capital represented through the level of education, quality of training, and work experience have a positive impact on the growth of firms (Koch and McGrath, 1996; Schutjens and Wever, 2000; Coff and

³ Report on SMEs in Kosovo in 2014; issued by Kosovo SME Promotion Program http://www.eciks.org/repository/docs/Report_on_State_of_SMEs_in_Kosovo_2014_99378.pdf

Krscynski, 2011; Brown *et al.*, 2005). Many other research studies have suggested other factors which internally enable or constrain the growth of firms. Such factors include variables such as networking capabilities (Cao and Zhang, 2011; Schiefer and Hartmann, 2008; Ruben *et al.*, 2006; Brown *et al.*, 2005), team-working capabilities (Foss *et al.*, 2008), marketing capabilities (Fowler *et al.*, 2000), dynamic capabilities (Teece, 2011), and corporate entrepreneurship capabilities (Zahra and Covin 1995; Lee, Lee and Pennings 2001; Morrow *et al.*, 2007). There is a specific strand of literature which is focused specifically on the role of management practices in the growth of firms (Bloom and Van Reenen, 2006, 2007, 2010).

With regard to external environment factors, it is widely accepted that they play a critical role in the SME growth. There is extensive evidence gathered around so-called “barriers to growth” literature which maintains that while only a proportion of small businesses are growth-oriented, the ability of this group to achieve their growth potential is impeded by the external business environment (Hashi and Krasniqi, 2011: 8). The factors most commonly explored include: physical infrastructure, the legal system, the financial system, various aspects of the micro and macro policy environment such as taxation, regulation, macroeconomic stability, and social factors such as crime and corruption in a society (Hashi, 2001; Bartlett and Bukvic, 2001, 2002; Smallbone and Welter, 2006, 2009; McMillan and Woodruff, 2002; Pissarides *et al.*, 2003; Clement *et al.*, 2004).

In examining the relationship between the business environment and firm growth, many studies have been focused largely on the effect of difficulties in access on finance by type of firm, particularly the firm size. Generally the empirical evidence indicates that in terms of access to external financial sources, smaller firms are more constrained than the larger ones (Schiffer and Weder, 2001; Love and Mylenko 2003). The reasons behind that usually are related to factors such as the market for loans which is imperfect and restricted in scope (even in developed countries) (Chilosi, 2001; Beaver, 2002); because of the information asymmetry in the capital markets smaller firms are more likely to be subject to credit rationing (Stiglitz and Weiss, 1981; Bratkowski *et al.*, 2000), smaller firms are less able to provide the required collateral, and so forth (Aghion *et al.*, 2005).

Another factor related to business environment widely discussed by literature is the institutional framework within which firms operate. The main features related to institutional environment include the rule of law, judiciary functioning and law enforcement agencies, as well as other features related to government, such as organised crime and level of corruption in the society. The evidence indicates that unfavourable institutional framework has an adverse impact on the growth of SMEs (Bartlett and Prasinkar, 1995; Bartlett and Bukvic, 2001, 2002; Hashi, 2001; Pissarides *et al.*, 2003; Giavazzi and Tabellini, 2004: 2; Aidis and Estrin, 2006; Smallbone and Welter, 2009).

The unfavourable business environment may create greater incentives for firms to evade regulations, and consequently that leads to the tendency to moving partially or fully to the informal sector and corruption (Johnson *et al.*, 2000). All this may contribute to the creation of an anti-competitive environment in which the market fails to allocate resources efficiently because some market players operate outside the law while those operating within the legal system face the increased cost of “doing business” legally (Hashi and Krasniqi, 2011: 9).

There are empirical findings suggesting that in high-income economies, high level of 'dynamism', or a high rate of firm entry and exit in the economy (referred to as Schumpeterian 'creative destruction'), is essential to the economic growth (Bartelsman *at al.*, 2004; 2009). High level of firm dynamics occurs in countries with the right policy environment which in turn stimulates greater entrepreneurship. Factors like the legal and regulatory regime, the speed and expense of the business registration process, flexibility of employment regulations and low corporate taxes (characteristics of developed economies) typically lead to a greater level of firm entry and exit (Klapper and Love, 2010).

However, there are some analysts of enterprise policy who argue that too high firm formation rates might not be very useful or may even be harmful to economic growth. For instance Green *et al.*, (2004) call for caution about the value of policy measures designed to increase business formation rates. According to them, building a competitive enterprise sector surely involves much more than simply increasing firm formation rates, because it involves development of preconditions for enterprise growth in terms of market shares, innovation, technological progress, financial efficiency and sustainability of employment levels. In other words, it could be argued that the quality of new firms created is equally important as is their quantity. Bartlett and Bukvic (2002) point out that the creation of a competitive enterprise sector, and the removal of constraints related to the expansion and growth of new firms is often much more decisive. But creation of a competitive enterprise sector is not an easy process. According to these authors the difficulties rest on the fact that this process is a complex structural problem, as opposed to the removal of mere administrative barriers for the creation of the new enterprises.

While there is a large amount of empirical evidence which explains the role that external environment plays in the growth of SMEs in all types of economies, there is little work dedicated to the role of firm dynamics factors in the growth of firms operating in developing economies such as Kosovo. More specifically, there is little evidence provided on internal factors, such as organisational capabilities and managerial practises, affecting successful survival and growth of SMEs in developing economies such as Kosovo.

This thesis does not aim only to cover these two important aspects related to the growth of firms, namely firm dynamics and organisational capabilities with managerial practises. The aim of this thesis goes beyond these two important aspects. The thesis also aims to identify the most binding business environment constraints to the growth of firms in Kosovo, and looks at social conditions that enable and constrain the emergence of innovative firms. More specifically, this thesis is developed around four main firm growth dimensions. The first dimension is related to factors that shape the dynamics and survival patterns; the second dimension is related to those enabling, constraining, and discriminating factors (organisational capabilities and managerial practises) that internally differentiate successful firms from other firms; the third dimension has to do with the business environment factors that externally bind the growth of firms, and finally the fourth dimension looks at social conditions which are of an internal and external nature and which shape the emergence of innovative firms.

These four dimensions of the study address different aspects of the growth of firms and are based on different theoretical and methodological frameworks. The investigation of these four dimensions

of the growth of firms has been recognized as important in a growing body of literature related to the growth of firms (Bartelsman *et al.*, 2009; Barney *et al.*, 2011; Hausmann *et al.*, 2008; Lazonick, 2013). However, this literature is neither extensive nor conclusive in providing empirical evidence on these dimensions, especially in the context of less-developed economies such as Kosovo. Hence, this study relies on a number of theories; employs a broad spectrum of methodological approaches; and utilizes primary datasets and uniquely assembled secondary sources, to analyse these aspects of the growth of firms central to the thesis. The choice of these four firm growth dimensions has been made on the basis of the gap in the current literature and they mutually form a comprehensive framework for understanding the micro and macro basis of firm growth in low income economies context.

1.1. The overarching research question

The overarching question for this study is: *What are factors that enable or constrain the growth of small and medium-sized firms in Kosovo?*

Apart from this overarching question, each of the four dimensions discussed in the study have their own specific question(s) and hypotheses. This is so because each dimension in this study addresses specific aspects related to the growth of firms. For instance the first dimension addresses the growth of firms from the perspective of firm dynamics; the second dimension addresses factors that internally enable and constrain the growth of firms; the third dimension is focussed on the analysis of business environment factors, while the fourth dimension addresses social conditions that enable and constrain the emergence of innovative firms.

1.2. The four sub-questions

The first key research question is related to the firm dynamics dimension. The research question for this part of the thesis is as following: *is firm dynamics one of the factors that influences the growth of firms in Kosovo?*

It is recognised that the Schumpeterian (1942) paradigm of “creative destruction” is crucial for the continued dynamism of the modern economy. On the one hand there is considerable evidence that relates entrepreneurial dynamism with economic growth in developed countries; while on the other hand, there is scarce evidence that discusses this relationship in developing economies such as the Kosovo’s economy. Thus, by using a new and unique dataset that includes the complete registered firms from 2008 through 2013, this study examines business dynamics in Kosovo. The investigation process is conducted by analysing trends in newly born firms; the death rates of firms, the impact on employment rate, and the survival rates of firms during this period. In this part of the thesis a special focus has been given to the determinants of the survival of the newly born firms. This involves an investigation of whether factors such as economic sectors, legal status, or size of the firm can account for significant differences in the survival of new market entrants. The study provides empirical evidence about the survival patterns of firms operating in Kosovo, *seeking to answer a more specific question related to firm survival: what are the determinants of survival firms in Kosovo?* The units of analysis are firms that were created in Kosovo during the period 2008 – 2013. This part

of the thesis has used *hazard models* to test a number of hypotheses which are related to the determinants of their survival.

The second sub-question is related to the investigation of internal factors that enable and constrain the growth of firms. Therefore the question related to this part of the thesis is as follows: *what factors differentiate high performing from low performing firms in Kosovo?*

Two types of conceptual frameworks are used in this part of the thesis: Resource-Based Theory (RBT), and Managerial Practices framework. The resource-based theory is used as an organising model to identify those inputs and organisational capabilities that most likely shape the firm's performance. More specifically, this unified theoretical model has an intra-organisational focus and argues that performance variability is the result of firm specific resources and organisational capabilities. The managerial practices framework is utilised to investigate those skills and practices applied by managers that influence the performance variability between firms. There is a set of specific variables which are used to identify managerial skills and practices deployed by firms, including operating practices, monitoring practices, the practices used by managers to set up business targets, and finally the incentive practices deployed in business organisations. The empirical data to answer the question and test the hypotheses raised in this part of the study were gathered through a semi-structured questionnaire. The survey was conducted through face-to-face interviews with managers of selected manufacturing firms. The selection of firms was based on specific characteristics and on the basis of a pairing technique. Through the pairing technique the aim was to ascertain patterns of dichotomies between successful and less successful firms. The questionnaire used by the survey had 58 indicators which were broken down into 185 variables. It is obvious that the number of variables greatly exceeds the number of case studies – 16 case studies (32 firms), which indicates that the survey is to a great extent of an exploratory nature. Variables range from those investigate tangible resources (physical and financial), human resources (education, training, experience), organizational capabilities (entrepreneurship mind-set, marketing, teamwork, networking, and dynamic capabilities); to those that examine management practices (operations, monitoring, targets and incentives). The ultimate aim of this chapter of the thesis is to investigate those discriminating factors at the level of organisational capabilities and management practices that influence differences between successful and less successful firms.

The third sub-question is related to external firm growth constraints. More specifically, in this part of the thesis it is intended to answer the question of: *what are the binding constraints in the business environment to the growth of firms in Kosovo?*

The analysis of external firm growth constraints in this section is based on the growth diagnostics approach and methodology proposed by Hausmann, Rodrik, and Velasco (2005). The growth diagnostics acknowledges the fact that, due to scarce resources firms in developing countries face numerous and various types of constraints. However, according to the growth diagnostics approach all possible constraints are not equally binding. The central question to this theory is which ones might be binding disproportionately? Or, which one, if relaxed, will deliver the biggest bang for the effort? Therefore, the aim in this part of the thesis is not only investigation of external factors that potentially constrain the growth of firms. In addition, the aim is to identify the most binding constraints, the one considered to have the largest negative effect on the firm growth, alleviation of

which should produce significant movement in the objective function (Hausmann *et al.*, 2008). The empirical evidence used to test the hypotheses is taken from two different sources. The first source of evidence is taken from international surveys, and the second source of data is taken from a manager survey data, a dataset consisting of 500 business firms.

The fourth sub-question is related to the investigation of social conditions conducive to the emergence of firm innovation. The question for this part of the thesis is: *What are the social conditions that enable or constrain the emergence of innovation in firms operating in Kosovo?*

This dimension of the thesis draws on the results produced in the previous dimension, that is, results generated by using the growth diagnostics approach and also other complementary and new approaches. Based on the growth diagnostic framework conventions, it could be assumed that once external constraints are removed the innovative firms as drivers of growth will inevitably emerge. This research study argues that this is a heroic assumption as it assumes unlimited supply of entrepreneurship provided that external conditions are right, as well as assuming that capabilities for firm formation are in place. Since firms are complex entities which do not necessarily grow automatically once external constraints are removed, there are varieties of intra-firm factors which inhibit firm formation and especially their growth. Therefore this empirical study attempts to argue that these intra-firm factors should be accounted for. Also, within this perspective intra-firm factors are also shaped by the external institutional environment but they are not fully determined by them. This is why the study has extended growth diagnostics with innovative firm theory that takes into account investigation of social conditions at both macro and micro level that influence the emergence of innovative firms. Innovative firms are here those that are generating products and process new to the firm, not necessarily new to the national or international market. Three sorts of datasets are utilised to address this research question. In the section where the institutional framework at national level is analysed, data provided by different national and international institutions are used; while to analyse social conditions at firm-level, a dataset made up of 500 firms is used.

As it will be discussed in Chapter 7 where main findings and conclusions are provided, the aim of this thesis is not only to investigate factors that enable or constrain the growth of firms today. In addition, the aim is to investigate factors that enable and constrain the growth of firms in a long term, or more particularly what makes them innovative. Finally the purpose of the thesis is to investigate drivers of firm growth, which derive from the interaction of micro and macro factors.

This research study is structured as follows. Chapter 2 provides an economic profile of Kosovo, its problems and challenges. Chapter 3 is focused on empirical results obtained from the firm dynamics approach in which are examined the changes in the incumbent firms, newly born firms, survival rates, and some sectorial aspects of productivity. By using resource-based theory and managerial practise approaches, Chapter 4 investigates the internal growth constraints from the perspective of the interviewed owners and managers of the firms selected in the case studies. Chapter 5 uses a variety of datasets to investigate factors that constrain growth of firms from an external perspective. In chapter 6 the social conditions which shape the emergence of firm innovation are analysed. Finally, in Chapter 7, the conclusions are drawn from the findings/results into one conceptual framework; limitations acknowledged, and directions for further research identified.

CHAPTER 2

2. Economic Profile of Kosovo, Problems and Challenges

This chapter aims to provide a short historical overview on the macroeconomic environment of Kosovo. It contains three sections: macroeconomic environment in Kosovo before 1999, the period between 1999 and 2008, and the period since the declaration of independent state (2008).

2.1. Economic environment in Kosovo before 1999

Kosovo was an Autonomous Province of the Socialist Federal Republic of Yugoslavia (hereafter SFRY). Under the 1974 constitution, it was one of the eight constitutive elements of the federation, though nominally it was part of the Republic of Serbia. As an autonomous province, Kosovo enjoyed a large degree of political and economic autonomy. Despite its economic potential, rich natural resource base, and fertile agricultural land, Kosovo has traditionally been the least development and the poorest region in the federation (European Commission and World Bank, 1999). It remained the least economically developed part of the federation throughout the country's existence (Woodward, 2001) with the highest unemployment rate, the worst roads and infrastructure, the lowest educational level, and the fastest growing population (Ramet, 2006). Until 1955 Kosovo was not a priority for the Yugoslav federation authorities (Ramet, 2006). After this period, the economy of Kosovo started to receive the badly needed financial support. However, the federation budget allocated for Kosovo remained significantly lower relative to the budget allocated to other parts of the federation (Dallago and Uvalic, 1998). One of the World Bank's report published in 1975 demonstrates a huge development disparity between regions in the Yugoslav federation. The same report points out that average GNP per capita in Kosovo's was only 45% of that of the underdeveloped republics (Montenegro, Macedonia and Bosnia and Herzegovina).

Funds that were allocated by the federal authorities for the development of Kosovo's economy during the decades of so-called "general federal growth", in 1960s and 1970s, were concentrated predominantly on heavy industry, rather than on labour-intensive industries and agriculture (Ramet, 2006: 270 – 275; Petiffer, 2002: 4 – 7). Over the 1970s and 1980s decades the economic activity was increasingly centred on mining, production of raw materials and semi-finished products such as lead, coal, zinc and some textiles. There were four main active industrial activities; all related to mining and raw material industries (European Commission and World Bank, 1999):

1. Lead and zinc mines, ore concentration plants, lead smelting and refinery plants, a zinc refinery, a sulphuric acid plant and a fertilizer and battery plant are concentrated in and around the town of Mitrovica;
2. The lignite open cast mines, a lignite drying plant, gasification plant, two thermo power plants, a steam power plant and nitrogen fertilizer plant are concentrated in and around the town of Obiliq;
3. Ferro-nickel mines and metallurgical industry are concentrated in and around the town of Glogovc; and
4. The limestone quarries and a cement factory are concentrated in the town of Elez Han.

It appears that the primary intention of the federal investments in heavy industry, especially in mining and power industry, was to fulfil the huge needs of other parts of the country (Verli, 2000). It was estimated that two-thirds of the power produced by the Kosovo's industrial capacities was sold to other regions at very low prices, which were determined by the federal authorities (UNDP, 2007; 6). It is true that over this period (1970 – 1980), the economy of Kosovo started to grow in absolute terms, but in relative terms, the economic growth continued to be well below other republics, with all sectors operating below their capacities (Ramet, 2006).

The institutional and regulatory environment for firms was based on SFRY-style state and social ownership: heavy industry was largely state and socially owned (European Commission and World Bank, 1999). At that time, the commercial criteria did not play the dominant role in decision-making. Nearly all decisions on resource allocation and location of industry were politically inspired (World Bank, 1999).

Over this period, the share of industry and mining in the overall Kosovo's output rose from one-third to one-half, whilst that of agriculture fell from nearly one-third to one-fifth (World Bank, 1999). More than 60 per cent of the pre-conflict population lived in rural areas, which means that the main economic activity of population at that time was agriculture (World Bank, 1999). The land was nearly universally privately owned during that time. Before 1989, there were tendencies of the transformation from a predominantly rural society to a more urban one (European Commission and World Bank, 1999). The proportion of population engaged in agriculture had fallen to about 26 per cent.

Though the symptoms of economic crisis in Yugoslavia were apparent before the death of Tito in 1980, it is thought that his death had deepened the crisis (Medjad, 2004). The consequences of this crisis have had significant effects for Kosovo. The crisis encouraged nationalism, and introduced a regime that spurred corruption and mismanagement (Palairat, 2001). The 1980s were to mark the end of the Yugoslav type of socialist economic management (Bartlett, 1985).

The crisis culminated in 1989 when the autonomous status that Kosovo underwritten by the federal constitution in 1974, was abrogated. As a result of so called "enforcement measures" implemented by the Serbian authorities, the vast majority of ethnic Albanian employees were expelled from their jobs. It was estimated that 145 000 of them were fired from posts in the civil administration, public services and economic enterprises (Hoti, 2004). The new circumstances had triggered the Albanian population to set up a parallel (though underground and illegal) governmental, health care and educational system. All that culminated with the existence of an economy within the economy (Pula, 2004).

It was in this period when the informal economy grew rapidly as large majority of the population was dependent on it. Many of those who lost their jobs found alternative income sources in the creation of small and medium-size firms, both formal and informal. Though there is no official figures about the number of firms that were operational at that time and their level of productivity, it was considered that in 1996, the private sector contributed 47 per cent of GDP and played an overwhelming role in the agriculture, construction, and trade sectors – and it survived better than public enterprises (World Bank, 1999).

A large number of Kosovar Albanians immigrated to Western countries, while others who lost their jobs in state enterprises returned to rural areas or worked in the informal sector. The agricultural

sector has always been important for local food production, but it also contributed one-third of the GDP in 1995 (European Commission and World Bank, 1999). In 1998, though largely based on small family farms with low productivity, agricultural activities accounted for about 60 per cent of the employment, and played a key role in food security at the household-level (European Commission and World Bank, 1999). The agribusiness activities provided about half of family income, the other half coming from both remittances and off-farm incomes (World Bank, 1999).

The installation of an “apartheid” regime by the Serbian government authorities during 1990s was followed by the imposition of a discriminatory process of the privatisation of socially owned enterprises (Perrit, 2005). Along with large scale dismissal of the workforce from their jobs, Serbian authorities introduced a discriminatory process of takeovers and mergers of Kosovo’s companies with those in Serbia, and the sale of companies by excluding Kosovar Albanians as well as other potential foreign investors from the privatisation process. The 1998 and 1999 war was another severe blow to the economy of Kosovo.

The SME policy and the institutional framework in this period should be viewed in the light of above described political and economic context in Kosovo. Legally, Kosovo was part of the Federal Republic of Yugoslavia made up of Serbia and Montenegro. The vast majority of firms operating in Kosovo were informal and consequently could not benefit from any specific program designed to support SMEs. As a matter of fact, there was no specific program established by the federal government aiming to enhance the development of small and medium-sized firms (Kutlaca, 2002). Some initial institutional attempts that would support the development SME were made after the outbreak of Kosovo war in 2000, that is, after Kosovo became a UN protectorate. However, before this period, that is during the period between 1992 and 1999, the federal government has taken some measures aiming to improve the economic environment for the development of SME, such as introducing an appropriate policy for the regulation and fostering the SMEs; identifying the main problems of the SME sector; organising training activities for entrepreneurs and SME employees, etc. (Kutlaca, 2002). Several other laws were adapted as a part of institutional framework, aiming to foster the growth of SMEs, such as: the law of foreign investors (introduced in 1994 and improved in 1996); the law on privatisation and ownership changes (introduced in 1992 and improved in 1996, 97, 98, 99); the law on enterprises (introduced in 1996 and improved in 1997,98,99) (Kutlaca, 2002). It is worth mentioning that these measures had limited, if any, effect on firms operating in Kosovo.

2.2. Economic environment in Kosovo between 1999 and 2008

The war took a heavy toll on the Kosovo’s economy. The Kosovo’s economy after the war consisted of three groups of firms: first, there was a large number of privately-owned firms which were predominantly engaged in trade and service activities; second, there was a substantial number of firms which operated outside the regulatory framework and which was difficult to distinguish from the formerly registered private firms; and third, there was a finite population of socially owned enterprises (hereafter SOEs) and publicly owned companies which were engaged in all sectors of the economy (European Commission and World Bank, 1999). The first and the second group of firms were not engaged in the industrial production or processing activities. The few production firms that were active before the war were significantly damaged during the war almost without exception (World Bank, 1999). It should be mentioned that after the war there were no operational financial institutions and no regulatory framework in place.

According to the Security Council Resolution 1244, Kosovo was administered by the United Nations Mission in Kosovo (UNMIK). The main goal of this administration was the establishment of effective and accountable institutions, and the establishment of the market economy. Parallel with the process of institution building, the international administration sought to find the opportunities for faster economic development and the reconstruction of the country. The transfer of the public sector into private hands has been seen as one method of boosting the whole recovery process (World Bank, 1999).

Kosovo had inherited around 600 SOEs and 60-70 publicly owned companies which had represented a decent starting point for the economic development of the country (Hethy, 2002). In one of its studies Riinvest Institute (2001) reported that the value of fixed assets of 192 large and medium sized SOEs was 4.5 billion DM, while the losses from the wartime destruction were at 1.3 billion DM. Later studies conducted by Kosovo Trust Agency (2004a) reported that the value of the SOEs was even greater, while 75 per cent of them deemed to be operational.⁴

Based on the Act of Social Capital, the privatization process in Kosovo started in 1989 (Riinvest 2001). However the number of companies that went through this process was very small. Due to the imposition of emergency measures and abolition of Kosovo's autonomy by the Serbian government in 1989, the privatisation process introduced at that time was soon brought to an end.

After the war in 1999, there were some short-term pre-privatisation experiments undertaken by the international administration - UNMIK. One of them was known as commercialisation. The aim was to transfer the SOE ownership to private sector investors through a 10-year lease, avoiding the difficult question of ownership or creditor claims (Riinvest, 2001). However, very soon this process was abandoned since it was rendered cumbersome and complex. Moreover, this process has been criticized for being too slow, too limited, entailing high transaction costs, and for presenting potential investors with limited incentives (Medjad, 2004).

The SOEs privatisation started with the establishment of Kosovo Trust Agency in 2002. In the beginning the process has been characterised by dilemmas and controversies which have been reflected in the delay of the process. Indeed, the process experienced two breaks, firstly during the fourth quarter of 2003 and 2004, while it had a more smooth operation during 2005, 2006 and 2007 before again having a major slow down during the 2008 (Forum 2008, 2009). After the declaration of independence, the process of privatisation has been administered by the Privatization Agency of Kosovo (PAK).

There were two privatisation methods applied throughout the process. The first one has gone through the "sale to the highest bidder" (regular Spin-Off); a method which was not largely employed by successor countries of former Yugoslavia (Riinvest, 2004a). In the cases of some large companies, the agencies have employed investment commitments, or so called the special Spin-Off method (Riinvest, 2004a). In general, only the assets and current liabilities

⁴The EU-led Pillar IV responsible for economic reconstruction and development had established Kosovo Trust Agency (KTA) as the only body which has the role of direct administration of SOEs and not only their supervision. This administration included electing managerial and leading structures, appointing supervisory boards, financial management policies and financial control (article 2) in all SOEs (Riinvest, 2001).

The KTA's 'Draft strategy' study cites 450 confirmed SOEs and another 180 with unclear status.

(defined generally as the last three months of unpaid accounts payable and the last year of unpaid VAT) of SOEs were sold, while other liabilities were left to be dealt with the privatization proceeds which were held in an escrow account (KTA, 2004a).

The privatization process in Kosovo is now in its final phase, leaving some 10 per cent of SOEs to be privatized in the coming period. Indeed, different agencies and institutions provide different figures about the total number of SOEs and the total number of privatized ones. In one of the recent reports issued by the PAK in January 2015 the total number of the SOEs identified by the KTA in Kosovo was 604 (p 5). The number of the SOEs which were put under the privatisation agencies (KTA and PAK) was 518. Since the beginning of the privatisation process, from 518 enterprises 769 new firms have been created.⁵ The accumulated proceeds from the sale of privatized assets reached over €600 million or around 15% of Kosovo's GDP. However, proceeds continue to be kept in foreign financial institutions. This fact has received considerable criticism. The isolation of this fund from Kosovo's economy has been found to have 'a negative effect on economic growth of the country'.⁶

The process of privatisation has received quite mixed reactions from the Kosovan society. Some view it as a failure, while for some other, having into account the Kosovo's political and economic circumstances, the privatisation process was successful. One report published by Forum 2015 in 2009, reports that from 103 selected privatized companies found that a third were 'not functioning' at all, whereas the rest had a 'significantly smaller turnover' than comparable private sector companies (p 16-17).

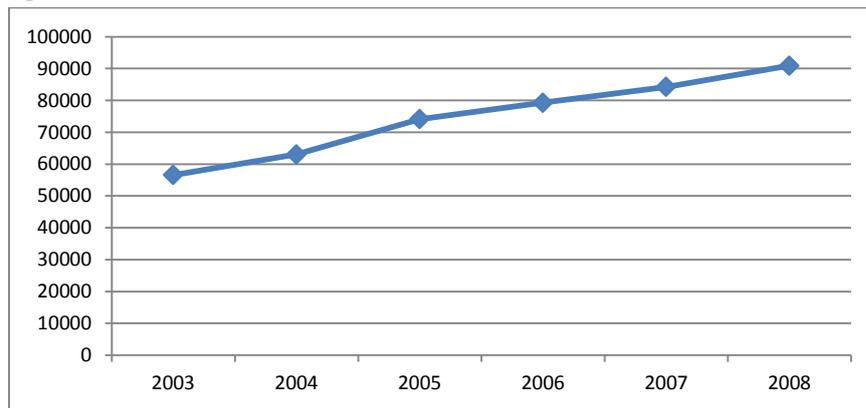
The trend of new firm formation after the war in 1999 was impressive. According to Kosovo Business Registration Agency, the process of firm registration in Kosovo has evolved through two phases. The first phase begins from the post war period, that is, from 2000 to 2003 in which firm registration was considered as provisional. And, the second phase begins from 2003 and onward. In one of its publication (KBRA, 2011) the agency reports that until 2003 there was a confusion over what was considered provisional and what was permanent firm registration. Finally, after coordination between several bodies such as UNMIK structures, Tax Administration, Customs, KBRA, and the Statistical Institution, from 2003 all registrations were considered as permanent ones. The graph below shows that the number of firms registered as active in business registry has been growing steadily since 1999. The number of firms has almost doubled since 2003, from total 56,572 registered firms in 2003 to 90,929 in 2008. With regard to size distribution, small firms that employ 1 to 9 employees comprise an absolute majority of firms – 98.39% of total firms. These firms contribute about 50 per cent to the total employment level, while larger firms though comprise only 0.05 per cent to the total number of firms; their contribution to the total employment level reaches 37 per cent. As said above, in terms of ownership structure, the majority of firms are comprised of sole proprietorships (around 90 per cent, followed by limited liability companies by 6.5 per cent and partnerships by 3.55 per cent. As regard to distribution of firms across economic sectors, a majority of them

⁵ PAK 2015, Annual activity report of Privatisation Agency of Kosovo [http://www.pak-ks.org/repository/docs/150130_FINANCIAL_STATEMENTS_OF_KOSOVO_BUDGET_Jan - Dec 2014_ENG.compressed.PDF](http://www.pak-ks.org/repository/docs/150130_FINANCIAL_STATEMENTS_OF_KOSOVO_BUDGET_Jan_-_Dec_2014_ENG.compressed.PDF)

⁶ Forum 2015: 'Privatization and post-privatization in Kosova', Pristina, 2008, p. 35.

belong to wholesale and retail trade 49.87 per cent, followed by hotels and restaurants 9.44 per cent, transporting sector 12.79 per cent, and food production at 9.18 per cent.

Figure 2.1 The trend of new firm formation 2003 - 2008



Source of data: KBRA

2.3. Economic environment in Kosovo since 2008

Kosovo is the youngest independent country in Europe. It declared its independence on 17 February 2008. In July 2010 the International Court of Justice (ICJ) confirmed that Kosovo's declaration of independence did not breach international law.⁷ The total area of the country is 10,908 km², populated by 1,733,842 inhabitants.

Kosovo is listed by the World Bank in the group of lower-middle-income economies – with GNI per capita between \$ 1,006 to \$ 3,975. According to official data about current average monthly wages, the wage range is between EUR 220 to 250 for civil servants and about EUR 300 at private enterprises.⁸ The Unemployment rate varies between 40 – 50 per cent, counted as the highest in Europe.

As is shown in Table 2.1 below, the economy of the country is highly dependent on remittances and international aid. These two components account for 22.5 per cent of total GDP (remittances between 10 - 15 %, while international aid and donor-funded activities account for another 7.5% of the GDP).⁹ Most of the remittances come from Germany, Switzerland, Italy, and the Nordic countries.¹⁰ It is worth saying that majority of funds are used for consumption of goods and services, meaning that they are not capital investments, and usually are transferred by person (only 16 per cent of remittances are transferred through banks).¹¹

Table 2.1 below shows that there is a trend of economic growth in the country, which primarily was driven by public spending, especially in infrastructure. For instance the budget of EUR 1.6 billion for

⁷<http://www.icj-cij.org/search/index.php?pg=1&p2=2&op=0&str=Report+on+Kosovo&lg=0&op=1>

⁸ Kosovo Agency for Statistics (<http://esk.rks-gov.net/eng/>)

⁹ USAID, "USAID/Kosovo Strategic Plan 2010-2014," May 20, 2010.

¹⁰ It is estimated that around 500,000 Kosovars work and live abroad, which make up around 30 per cent of total population of 1,733,842.

¹¹ Kosovo Remittance Study, 2010.

2013 contained an allocation of EUR 220 million to complete highway R7 to Albania, in line with the original construction schedule.¹²

Table 2.1. Main Economic Indicators

	2008	2009	2010	2011	2012	2013*
GDP (millions of Euros)	3,851	3,912	4,216	4,637	4,885	5,169
GDP (in %)	6.9	2.9	3.9	5	2.7	3.2
CPI, period average (in %)	9.4	-2.4	3.5	7.3	2.5	2.2
Revenues, incl. interest income in % of GDP	24.5	29.3	27.6	28.1	27.8	27.6
Exports (mill euro)	218	177	305	322	289	307
Imports (mill euro)	1,886	1,851	2,081	2,412	2,474	2566
Trade balance (mill euro)	-1,669	-1,673	-1,776	-2,090	-2,185	-2259
Foreign direct investment, net (in mill euro)	342	277	358	371	321	674
Worker remittances (in mill euro)	535	506	512	548	557	568

Source: IMF Kosovo Main Indicators, 2008-14; 2013 figures are only projections

Despite significant improvements in the last three years, the quality of complementary factors (physical infrastructure) leaves a lot to be desired. The country has invested considerably to improve the road infrastructure. However other infrastructure elements remain in poor condition. Kosovo still has an out-dated power system. It is inadequate and unreliable, posing significant challenges to economic growth; frequent outages hamper investment and disrupt manufacturing, education, and health services (World Bank, 2012). It is a similar situation with the water supply.

In Table 2.2 below figures show the GNI per capita over 2008 – 2012. The country is put in the context of five other neighbouring countries, of which four of them have been part of the ex-Yugoslav federation. Kosovo stands behind all countries, including Albania. For instance, the figures show that there is a stark difference between Kosovo and Croatia (put here as a benchmark) which is the newest EU member state.

Table 2.2 GNI per capita – Kosovo and other comparator countries

Country Name	2008	2009	2010	2011	2012	Ranking
Albania	3,850	4,030	4,040	4,050	4,030	4
Croatia	13,790	13,700	13,550	13,750	13,490	1
Kosovo	3,080	3,230	3,340	3,520	3,600	6
Macedonia, FYR	4,130	4,450	4,580	4,710	4,620	5
Montenegro	5,610	7,030	6,670	7,210	7,220	2
Serbia	5,360	5,740	5,550	5,530	5,280	3

Source: The World Bank

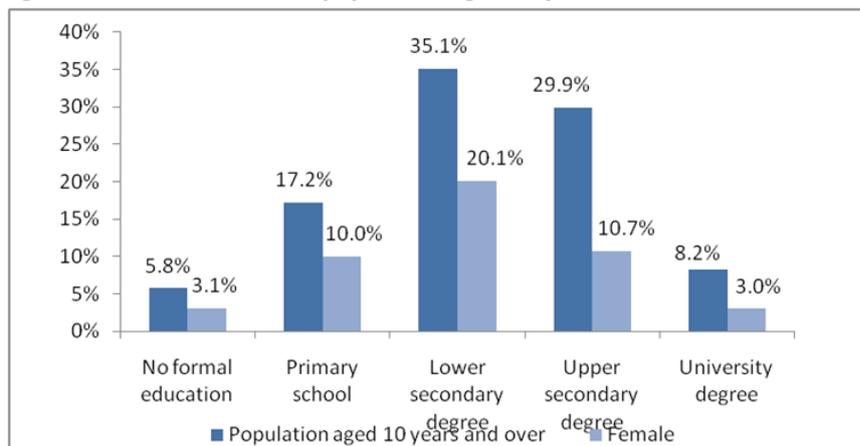
As the global economy shifts towards a more knowledge-based sector, skills and human capital development become a central issue for economic development (OECD, 1996).¹³As indicated previously, Kosovo has the youngest population in Europe. This at the same time represents one of the main challenges for the country, because the young age structure of the population means that more young people will enter into the labour market each year. According to the European Commission (EC), over 70% of Kosovo's population is under the age of 30 while its youth unemployment rate of 73% is the highest in South East Europe (EC, 2011). Another challenge is the education of the young generation. It is known that the global economy today is shifting towards

¹²IMF Country Report, December 2012.

¹³Human capital is a broad concept, involving the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (OECD, 2011).

more knowledge-based sectors. Therefore skills and human capital development become a central issue for economic development (OECD, 1996). Despite the fact that the portion of budget dedicated to education is increasing every year, Kosovo still remains behind some neighbouring countries, accounting for about 16 per cent of total spending and 4.3 per cent of GDP in 2008 (MEST, 2011; Dillinger, 2010). This is below the average for Central and South East Europe as a whole (4.8 per cent) and individual countries such as Slovenia (5.7 per cent) and Serbia (4.8 per cent) (World Bank, 2009). Based on the recent Kosovo Population and Housing Census (Kosovo Agency of Statistics, 2011), 5.8% of the population has no formal education and 3.8% of the population is illiterate. Almost 80% of the illiterate are female. Only 8.2 population, from which 3 per cent of them are female, have a university degree (Kosovo Agency of Statistics, 2012), compared to an average of 34 per cent in EU-27 countries, 23 per cent in Croatia, and 17 cent in Macedonia (OECD, 2011).

Figure 2.2 Education level of population aged 10 years +



Source: Kosovo Agency of Statistics (2012), Kosovo Population and Housing Census 2011: Final Results, Kosovo Agency of Statistics, Pristina, <http://esk.rks-gov.net/rekos2011/?cid=2,64>.

Overall, the education system in Kosovo has been improved, at least in terms of infrastructure. However, considerable problems and challenges remain. One of the major problems with human capital, and specifically with the education system is its structure. The majority of students enrolled in tertiary education are enrolled in social sciences rather than in technical sciences (OECD, 2013). For example, at the University of Prishtina as the biggest in the country, 5.6% of the enrolled students are studying natural and mathematical sciences and 3.4% electrical and computer engineering. By contrast, in the Former Yugoslav Republic of Macedonia 11.6% of students are studying sciences and 7.7% fields related to engineering, manufacturing and construction; while the figures are 7.8% (sciences) and 12.2% (engineering, manufacturing and construction) for Croatia (UNESCO, 2012).

Therefore the shift of structure towards technical sciences remains one of the main challenges. Another important challenge relating to the education system in Kosovo is the relationship between universities and business entities. The internship system applied in developed countries, in Kosovo is either applied at small scale, or it is not applied at all (OECD, 2013). Therefore, due to the old system of teaching (learning and memorising facts and theories rather than the application of knowledge and critical thinking), there is a general view among firms that students that graduate in the

universities, both private and public ones, lack applied skills (OECD, 2013).¹⁴ There is no data on the number of students that find jobs after the graduation.

The following paragraph provides information about the institutional quality in the country. The World Bank publishes six indicators of institutional quality including rule of law, voice and accountability, political stability, government effectiveness, regulatory quality and control of corruption.¹⁵ Data provided in Table 2.3 below shows that Kosovo does not compare favourably to the group of comparator countries. Assessment is done in percentile rank terms ranging from 0 (lowest) to 100 (highest) among all countries worldwide.

Table 2.3. Government indicators – Balkans countries

	Year	Percentile rank (0 - 100)						Rank
		Alb	Cro	Kos	FYROM	Mntg	Srb	
Voice and Accountability	2007	51.44	61.54	36.54	55.29	55.77	56.73	6
	2012	50.24	63.51	42.18	49.76	56.4	55.92	
Political Stability and Absence of Violence/Terrorism	2007	37.98	67.31		30.29	48.08	25.48	6
	2012	39.81	64.45	15.17	33.18	63.98	38.86	
Government Effectiveness	2007	42.23	68.93	48.06	49.51	50.49	47.09	6
	2012	44.98	72.25	41.63	51.67	59.81	50.72	
Regulatory Quality	2007	55.83	65.53	54.85	56.8	50.49	40.78	5
	2012	56.46	66.51	52.63	61.24	53.11	50.72	
Rule of Law	2007	27.75	55.02	24.4	39.71	49.28	37.32	5
	2012	35.07	59.72	35.55	47.87	55.45	44.08	
Control of Corruption	2007	29.61	59.22	23.79	44.66	48.54	45.63	5
	2012	26.79	57.42	30.14	59.33	55.02	48.33	

Source: Kaufmann, Kraay, and Mastruzzi. The Worldwide Governance Indicators: Methodology and Analytical Issues. These indicators are available at: www.govindicators.org

Note: The indicators are a research dataset summarising the views of the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. This data are gathered by a number of survey institutes, think tanks, non-governmental organisations, international organisations and private sectors firms. The WGI do not necessarily reflect the WB views.

Transparency International has ranked the country among the most corrupt countries - 111/177.¹⁶ In terms of doing business indicators, the World Bank has ranked Kosovo as 86, which is a slight improvement compared to 2013. Economies are ranked from 1 to 189 by the ease of doing business index, and for each economy the index is calculated as the ranking on the simple average of its percentile rankings on each of the 10 topics included in the index in *Doing Business 2014* (World Bank, 2014). From ten topics included, Kosovo stands significantly better at two of them, paying taxes (43) and getting credit (28). According to the World Bank, in economies where it is more difficult and costly to pay taxes, larger shares of economic activity end up in the informal sector—

¹⁴There are 18 private universities and colleges, and 5 public universities operating in the country (OECD, 2013)

¹⁵1. Voice and Accountability (VA) – capturing perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

2. Political Stability and Absence of Violence/Terrorism (PV) – capturing perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.

3. Government Effectiveness (GE) – capturing perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

4. Regulatory Quality (RQ) – capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

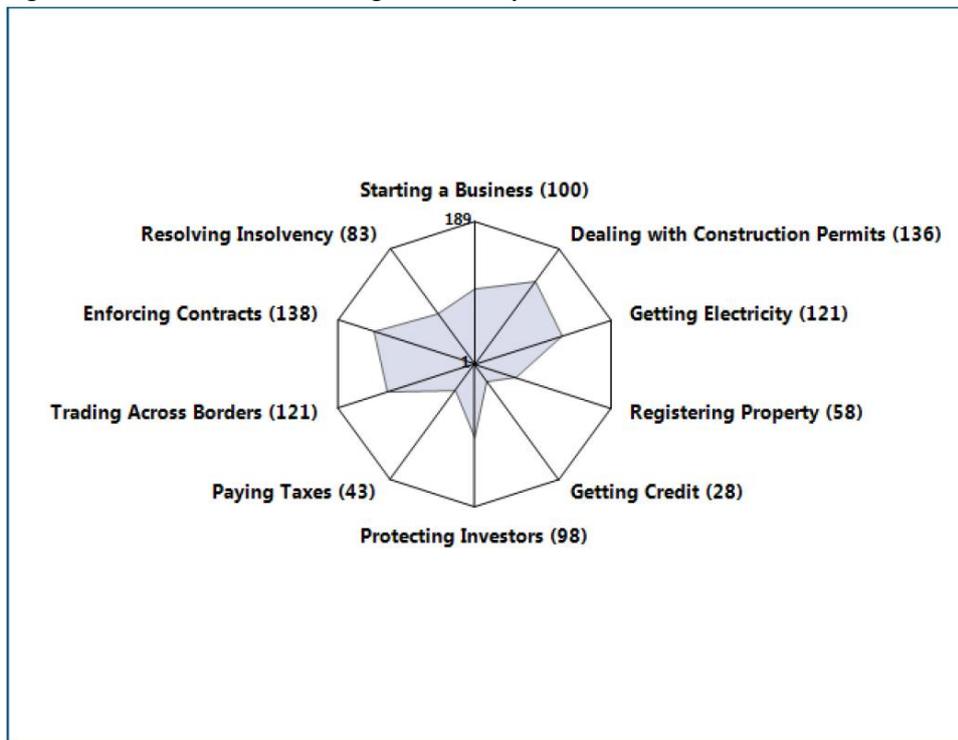
5. Rule of Law (RL) – capturing perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

6. Control of Corruption (CC) – capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

¹⁶Croatia – 57/177, Albania – 116/177, Montenegro – 67/177, Macedonia FYR – 67/177, Serbia – 72/177.

where businesses pay no taxes at all (World Bank Doing Business Data, 2014). Kosovo is ranked favourably as opposed to comparator countries (excluding Croatia), meaning that firms do not find it difficult and costly to pay taxes.

Figure 2.3 Kosovo's ranks on Doing Business topics



Source: *Doing business database, World Bank 2014*

2.3.1 Fiscal, monetary and financial indicators

Since 2002 and on a unilateral basis, the country has adopted the Euro as its official currency. On the one hand that has provided a strong monetary anchor and has generally served positively for the economy; on the other hand it makes fiscal policy the main instrument for domestic demand management, and imposes limitations on the central bank's ability to act as lender of last resort (IMF, 2013).

Revenues in the form of taxes collected at the country's borders continue to dominate the structure of budget revenues. For instance according to the Ministry of Finance, revenues collected at the borders represented 63.4 per cent of the total revenues in 2011. In this context value added tax (VAT) is the largest category (50.7 percent) (Ministry of finance of Kosovo, 2011). Capital expenditures in the last three years was mainly intended towards infrastructure investments (65.4 per cent of capital expenditures), which largely consisted of the construction of the Merdare-Morine highway, which began in April 2010 and is intended to provide the country access on the sea via Albanian coast. The country's budget deficit is provided in Table 2.4 below.

Table 2.4. Kosovo Government budget overview

In '000 000 EUR	2011 Budgeted	2011	2012 Proj	2013 Proj
Total revenues		1,303	1,303	1,352
Total expenses		1,388	1,465	1,493
Deficit		-85	-162	-141

Source: Kosovo's Ministry of Finance

The financial system in the country is seen to be probably one of the most successful stories (IMF, 2013), at least in terms of its soundness. This system is generally dominated by banks. The banking system is made up of 8 banks, which account for more than 75 per cent of total financial system assets (IMF, 2013). Seven banks are locally incorporated and two are foreign branches. The three largest locally incorporated banks are subsidiaries of European banks and together account for more than 70 per cent of bank assets (IMF, 2013).

The non-bank sector is represented by pension funds, micro-financial institutions and insurance companies. Although small, the microfinance sector is considered to be a key lender to small businesses, agriculture, and low income households. It accounts for 4 per cent of the total loan portfolio of financial institutions (IMF, 2013). The average loan size amounts to €1,400 and lending to agriculture accounts for 46 per cent of total lending in the sector. Two banks dominate the banking sector in the market, with about 50 per cent of assets (IMF, 2013).

Table 2.5. Financial System Structure (2012)

	Number	Assets (eur mn)	Percent of total assets
Commercial banks	8	2,652	75
Foreign	6	2,333	66
Domestic private	2	3,190	9
State-owned	0	0	0
Nonbank financial institutions	33	892	25
Insurance companies	13	120	3
Life insurance	3	11	0
Non-life insurance	10	109	3
Pension funds	2	659	19
Public	1	654	18
Private	1	5	0
Micro-finance institutions	14	79	2
NBFI (lending)	4	34	1
Total financial system	41	3,544	100

Source: Central Bank of Kosovo and IMF staff estimates

Lending activity is limited, except to salaried individuals and established firms. Loans of less than €10,000 to small firms account for around 7 per cent of the total loan portfolio, while loans for up to €30,000 account for about 14 per cent, whereas agricultural loans account for only 2.4 per cent of total loans provided by commercial banks (IMF, 2013).

Comparing to other countries in the region, the spread of interest rates and margins are relatively high. The average weighted differential between deposit and lending rates in Kosovo have exceeded 1000 points since 2008, while in 2011, the differential was 1060 basis points, falling to 1016 in 2012

(IMF, 2013). When compared with the countries in the region, the spread is high. The average is less than 400 basis points, and the net interest margin to loans ratio has remained robustly above 8 per cent since 2009 (IMF, 2013).

2.3.2. Structure of economic sectors and firms in the country

The country's enterprise sector is dominated by small and micro-sized firms, which make-up 99.7 per cent of the total number of firms. The majority of these firms employ less than 50 people, contributing about 60% of the overall turnover in the economy (Kosovo agency of statistics, 2013). The structure of firms divided by sectors is given in the Table 2.6.

Table 2.6. Economic structure by sectors (share of GDP)

Main Economic Sectors	2011
Agriculture, hunting, forestry and fishing	14.13%
Mining and quarrying	1.62%
Manufacturing	8.00%
Electricity, gas and water supply	3.81%
Construction	7.97%
Wholesale and retail trade	14.49%
Hotels and restaurants	0.74%
Transport, storage and communication	4.16%
Financial intermediation	4.63%
Real estate, renting and business activities	5.35%
Public Administration	12.75%
Other services	3.33%
Taxes on product	19.02%
Total	100.00%

Source: Kosovo Agency of Statistics (2013)

One of the biggest problems of the financial system is the informal economy. The problem arises from weaknesses in tax and expenditure policies and, in law enforcement, including the fight against corruption and organized crime (Riinvest Institute, 2014). As a result of that, the tax base of the country is reduced and the economic efficiency is distorted. In order to combat the informal economy, the Kosovo Tax Administration continues to issue fiscal numbers and to install fiscal cash registers, though they are not systematically used (Riinvest Institute, 2014).

All these figures given above describe the country's macroeconomic context within which firms operate. Viewed through the perspective of comparator countries, the business environment within which firms operate looks considerably unfavourable. Constraints that firms face while doing business seem to be numerous and various, and it may look like all of them are binding at the same time. Apart from providing an overview about the environmental setting in which firms operate, in the chapter 5 these data will be used to investigate which of these constraints are most (significantly) binding to the growth of firms.

2.3.3. SME policy and institutional framework in Kosovo

Kosovo has embarked on its SME policy seven years after the war, in 2006-2007. More specifically in 2008 the government approved a specific Law on Supporting the Small and Medium

Enterprises.¹⁷The goal of this law is to provide an institutional, regulatory and financial framework conducive for the development of small and medium-sized enterprises. The law established the Small and Medium Enterprises Support Agency, which became operational only in 2008, within the Ministry of Trade and Industry. The Agency's goal is to support SMEs in many directions including: access to loans and credits; compiling, analysing and disseminating statistics and other useful information on the economic and commercial environment; private sector investment; preventing and reducing barriers to business; opening trading opportunities outside of the country; creating policies and legislative instruments to provide SMEs with more flexible employee legislation; facilitating communication between SMEs, larger enterprises, and other relevant private professionals to enhance capacities and expertise.¹⁸In addition to that, the objective of the Agency is to provide training and consultation schemes for entrepreneurs; develop business incubators; and develop SME support programmes and schemes.¹⁹ The first SME strategy drawn by this Agency was only elaborated in 2010.²⁰The importance of the development of SMEs for Kosovo is reflected also in the government's 'Private Sector Development Strategy 2013-2017'.²¹

Despite a good progress made in establishing an operational environment conducive for SMEs, the Kosovo's performance in the 2012 small business act (SBA) has been generally below the regional level (OECD, 2012).²² For instance, when it comes to the provision of business services, the national policy framework established by the government is considered to be quite poor. According to OECD (2012) the measures related to business support services in the SME strategy are broad and not associated with clear targets. In particular services related to start-ups are limited and heavily dependent upon donor support. One of the major constraints of the SME policy and institutional framework is the lack of comprehensive, easily accessible, and regularly updated information on issues relevant to SMEs operating in Kosovo (OECD, 2012).

¹⁷Law No. 03/L-031 on Amendment and Supplementation of the Law No. 02/L-5 on Supporting the Small and Medium Enterprises, Article 3, available at http://www.kuvendikosoves.org/common/docs/ligjet/2008_03-L-031_en.pdf

¹⁸Law No. 02/L-5 on Supporting the Small and Medium Enterprises, Article 5, available at http://www.kuvendikosoves.org/common/docs/ligjet/2005_02-L5_en.pdf

¹⁹Law No. 03/L-031 on Amendment and Supplementation of the Law No. 02/L-5 on Supporting the Small and Medium Enterprises, Article 5, available at http://www.kuvendikosoves.org/common/docs/ligjet/2008_03-L-031_en.pdf

²⁰'SME Development Strategy 2012-2016' <http://gapmonitor.org/data/Image/SMEstrategy.pdf>

²¹http://www.mti-ks.org/repository/docs/2013_MTI_Strategjia_ZHSP_Eng_115534_268412.pdf

²²The Small Business Act (SBA) is an overarching framework for the EU policy on Small and Medium Enterprises (SMEs). It aims to improve the approach to entrepreneurship in Europe, simplify the regulatory and policy environment for SMEs, and remove the remaining barriers to their development (OSCD, 2012).

3. Firm Dynamics in Kosovo

The aim of this chapter is to investigate the patterns of firm dynamics in Kosovo. The process of investigation is conducted by using two datasets. Both of them have been obtained from two Kosovo's government institutions. The specifics of these datasets will be discussed below in the section of methodology and in Appendix A.

As stated below in the section of theoretical perspective in this chapter (section 3.2.), although the subject of analysis is Kosovo's economy, this study does not look at firm dynamics of this country as an isolated case. The outcomes generated from Kosovo are put into comparative context with other countries provided in the Bartelsman *et al.*, (2009) study. Based on the classification produced by the World Bank, comparator countries are categorised in three groups: low-income countries, upper-middle income, and high income countries (more information on the income level classification is provided in the Appendix B). Overall, there are three elements around which this investigation is conducted: the Schumpeterian theory of creative destruction, the stylised facts from empirical evidence, and the findings on firm dynamics from comparator countries.

The chapter is organised as follows. Following the introduction section, the first section provides related literature on firm dynamics, including the theoretical framework used. The second section provides a brief description of the data and description of definitions used throughout the analysis. The third section explores patterns of firm demography in the country such as: the stock of existing firms, its evaluation over time, its structure, its distribution by size, the flow of newly-born firms and exit of firms during 2010 to 2013, and the effects of churning on employment level. The analysis in this section is carried out by investigating the demography of firms in sectors (industry, service and construction) and subsectors, size-class, and legal status. Following this, the patterns of entries and exits are explored. The fourth section investigates post-entry performance of firms across economic sectors using non-parametric survivor and hazard functions. The fifth section investigates some elements of productivity related to sectors and subsectors based on labour productivity, which of sectors and subsectors seem to be more dynamic, and whether the size of firms has any effect on productivity. In the final section, some conclusions are drawn.

3.1. Related literature on firm dynamics

This section of the literature review provides findings from the firm dynamics studies and is organised as follows: the first part reviews the research on firm dynamics based on four firm specific factors, followed by the discussion of a series of stylized facts generated by empirical studies. The results of these two elements are then summarised and presented in the light of the next steps followed by this study. Finally, the last part provides a theoretical framework in which the research question and hypotheses are developed.

There is an increasing body of literature that investigates firm dynamics patterns and their impact on the growth of firms. Such studies argue that a substantial portion of firm growth can be attributed to firm churning (entry and exit), and reallocation of resources from shrinking/exiting firms to

expending/entering firms (Ahn, 2001). The importance of firm dynamics in firm growth has been recognised by many empirical studies.²³ The majority of these studies have been built around the growth theory provided by Schumpeter (1934). Over the past 25 years this theory has developed into an integrated framework for understanding the macroeconomic as well as microeconomic issues to growth (Aghion *et al.*, 2013).²⁴ Generally these studies have been restricted to the manufacturing sector and to the developed countries, such as United States, Canada and European Union.

Different studies have used various variables to explain firm dynamics patterns. The most common variables used can be summarised into four groups: firm specifics, the industry specifics, the spatial or geographic factors, and macro-economic and business environment factors.

The firm specific factors reflect individual properties of firms such as legal structure, age, size of firms, adaptability of new technology, etc. In examining the impact of legal structure on the firm survival, studies show that multinational firms and firms that are owned by multinational companies have greater chances to survive and to grow as compared to single establishment firms, or those owned by foreign individuals (Li and Guisinger, 1991; Holmes *et al.*, 2000). Harhoff *et al.*, (1998) found empirical evidence which explains that legal structure is associated with chances of success. They note that limited liability firms are characterized by higher growth and higher survival rates compared to, for instance, firms under full liability. According to these authors, limited liability companies are more apt to go bankrupt than to be liquidated voluntarily. This is due to the fact that such firms are not liable for debts of the company, therefore they prefer to go bankrupt (i.e., to fail with losses to creditors) as compared to other firms that must pay from their personal wealth. Mata and Portugal (2002) found out that legal structure had the expected effect on survival probabilities. They note that unlimited liability firms are more likely to exit than limited liability. More specifically, they show that firms with foreign ownership have greater survival probabilities than firms with domestic ownership. This is so basically because foreign firms are larger, employ a larger proportion of college graduates, adopt more formal legal structures and operate with a larger number of plants. Moreover, the industries they choose to enter are more concentrated, have more significant economies of scale, experience less entry and have a greater share of employment in foreign firms than industries entered by domestic firms.

One of the firm specific factors widely discussed by the literature is size of the firm and its impact on survival. Researchers argue that entering at large scale increase chances to survive (Mata and Portugal, 1994, 2002, 2009; Mitchell, 1994; Haveman, 1995; Sharma and Kesner, 1996). Various arguments are associated with size of firms and survival rates. So, Audretsch and Mahmood, (1994) note that firms decide to enter at a large scale because they expect to be close to the minimum efficient scale. Being close to the efficient scale enables greater competitive advantage as opposed to smaller firms which operate further up the cost curve and therefore become more vulnerable. Being large firms also means having better access on funds than being a small firm (Fazzari, Hubbard,

²³ There are many authors who recognize the role of firm dynamics on productivity growth. Among many of them include Geroski, (1995); Gerick (1995); Caves, (1998); Foster *et al.*, (1998); Bartelsman and Doms, (2000); Ahn (2001); Bartelsman *et al.*, (2004, 2009)

²⁴ Aghion *et al.*, (2013) talk about four aspects on which this theory delivers distinctive predictions: (i) the role of competition and market structure; (ii) firm dynamics; (iii) the relationship between growth and development with the notion of appropriate growth institutions; (iv) and the emergence and impact of long-term technological waves.

and Petersen, 1988). Having limited access on finance means working within cash constraints, and that may lead to a smaller scale of operation (Geroski, Mata and Portugal, 2012). Following the same line of reasoning, Zingales (1998) argues that even if restricted access on finance may not push smaller firms into a cost disadvantage via economies of scale, it will put them in a tougher position to survive when they face unexpected (temporary) difficulties, which may not be the case with competitors with better access on funds. By the same token, Geroski, Mata and Portugal (2012) argue that large firms are also typically more diversified than smaller firms, and this may improve their survival prospects by reducing risk and keeping alive options in one market should activities go sour in another. Finally, the literature argues that larger firms may have greater survival prospects not only because of operating at a different point on the cost curve, or having better access on finance, but also because they may have different organisational capabilities (Barney, 1992) and better managerial practices (Bloom, and Van Reenen, 2007). Better organisational capabilities and managerial practices translate into lower costs at any given size and these lower costs lead firms to choose to operate at a large scale (Lucas, 1978). Internal firm characteristics and their impact on firm survival are discussed by many studies. For instance, Baldwin *et al.*, (2001) provide evidence suggesting that factors internal to firms are instrumental in explaining the firm failure. They found that almost half of the firms in their sample exit due to the internal problems such as lack of managerial experience, lack of knowledge, and the vision. They also note that 71 percent of failures come due to poor financial planning, inability to manage working capital, and undercapitalisation. Geroski, Mata and Portugal (2012) provide evidence on impact of organisational capabilities (as they say resource-based view) and human capital on the survival rates of firms.

There are studies which argue that entering small does not always have disadvantages. Entrepreneurs may prefer to enter at a smaller size because they want to avoid the aggressive behaviour they may get from incumbent firms (Scherer and Ross, 1990; Geroski, Mata and Portugal, 2002). Entering at a smaller size is also associated with sunk costs. Entering at a smaller size enables firms to avoid incurring costs that cannot be recoverable in case experience reveals that they are not efficient enough to survive (Cabral, 1995). The literature provides discussions of other factors that influence the size of new firms. For instance, Jovanovic (1992) argues that entrepreneurs prefer to enter at a smaller size due to the limited knowledge about the future profits. In the literature this is otherwise known as the passive learning theory, which states that entrepreneurs usually start business activities without any prior knowledge about future profits and efficiency (Jovanovic, 1992). Over time they collect information about performance, and thus gradually learn about profits and the firm's efficiency. Those that learn better are more adaptive to market requirements and therefore survive, while those that find difficulties in adapting, either contract or exit from the market. In contrast to that, there are entrepreneurs who have more optimistic *ex ante* expectations for their future business performance. This is in line with active learning theory which states that entrepreneurs actively learn about their future prospects, and therefore decide to enter at a larger scale (Ericson and Pakes, 1995; Ahn, 2001). Larger firms may have better survival prospects because they are more apt to endure poor performance for longer period, and also to suffer losses for longer periods than their smaller counterparts (Geroski, Mata and Portugal, 2012).

In one of the most recent studies, Nunes and Sarmiento (2012) found evidence which suggests that firms that start small and experience faster post-entry growth, enjoy better survival prospects. This confirms one of stylised facts to be discussed below that a firm's size has a huge impact on the determination of the probability of survival, particularly in the services sector. In one of their recent studies, Carreira and Teixeira (2011) find that market selection drives low-productivity firms to exit,

but there is also evidence that a considerable portion of small as well as low-productivity firms do not go so easily from the market. However, both low-productivity and small firms are much more likely to exit the market.

Age is another variable which has been used widely by researchers to investigate firm survival rates. The prevailing assumption is that the probability of firms to exit from the market declines with their age (Mitchell, 1994; Mata and Portugal, 1994; Dunne et al, 1989). During the first years of their business operations, firms are characterised by the syndrome named “liability of newness”. The origin of the phrase “liability of newness” can be traced to Stinchcombe (1965) article on social structure and organizations. He argues that poor understanding of conditions are responsible for the comparative death rates of new and old organizations and particularly for why a higher proportion of new organizations appear to fail than older ones. In other words, during their first years of existence firms experience the process of legitimating what is carried on either through learning about their abilities to be in business (Jovanovic, 1982) or by developing new distinctive capabilities (Barney, 1991). This is the process which facilitates the development of tacit knowledge and consequently reduces the uncertainty.

On the other side of “liability of newness” syndrome stands the syndrome called “liability of adolescence”. According to Hannan (1998) there are three factors associated with this syndrome: firstly, the fact that when firms start their business they usually are endowed by certain resources which may protect them from failure. As time passes by, the endowed resources may vanish and therefore the mortality rates may arise (Mata and Portugal, 2002). The second factor is the state of the environment at the time when the firm entered into the market. The state of the environment has also influenced the types of strategies adapted by firms. However, as time passes and firms age, strategies adapted may well be ill-suited to cope with new circumstances, and all that may cause the rate of exit to increase (Mata and Portugal. 2002).

A third factor related to the syndrome of “liability of adolescence” is associated with routines that may be developed by firms in the beginning of their business activities. The routines developed from the early life may seem to be functional to a certain point. However, they may also turn out as rigidities and impede firms to adapt to new circumstances. Change in technology is also a variable that can be expected to have an impact on survival rates. For instance, Mata and Portugal (1994) found evidence which shows that manufacturing firms that were not able to accommodate changes in technology and did not have access on a specialised labour force, were more prone to exit from the market.

In sum, variables such as size of the firm, the age, the ownership structure, adaptability of new technology, should impact on the survival and the growth of firms operating in Kosovo. More specifically, entering into markets as a small firm versus a large firm, or being under sole proprietorship, limited liability, or foreign owned company, are expected to affect the firm survival prospects.

With regard to industry specific factors, the most common variables used include the growth stage of specific industries, the average firm size of an industry, and the type of industry in which firms operate. Empirical evidence suggests that high industry growth can accelerate the firm exit (Mata and Portugal, 1994; Audretsch and Mahmood, 1995; Baldwin et al., 2001). Baldwin *et al.*, (2001) use the average firm size of an industry to measure the performance of new entrants. They show that

since the size of the firm at entry is usually smaller than incumbents, this represents a serious disadvantage for new firms, by decreasing their ability to compete and survive. According to these authors, firms increase their chances to survive depending on how quickly they increase their size to the average size of the industry.

Many studies have investigated whether there is any relationship between firm survival and the specific economic sectors in which they operate (Geroski, 1995; Audretsch, Santarelli and Vivarelli, 1999; Audretsch, Houweling and Thurik, 2000). The generated evidence indicates that the probability of firm survival differs across industrial sectors. However, these differences across sectors vary less over time when compared to more volatile entry rates. This is interpreted in the literature as evidence that barriers to survival are more effective than obstacles to entry (Gerick, 1995). Then literature links the factors to survive with traditional market structure variables such as the economies of scale, cost advantages of incumbent firms, and the growth rate of sector specific demand (Audretsch and Mahmood, 1995; Mata and Portugal, 1994). Some other studies investigated the impact of technology on the survival prospects. Thus, Audretsch (1991) points out that high-technology industry sectors with large economies of scale have high rate of entries, but the survival rate is low. This is one of the main characteristics of high-tech sectors. In one of his subsequent studies conducted in 1995, Audretsch refines the evidence on the impact of technology on survival, arguing that effects of technological conditions vary with the age of firms. In more innovative industries, within a certain period after entry, new entrants have a lower probability to survive. But, after a certain number of years (8 years) the chances of survival increase. This is primarily due to the experience and business routines that new firms acquire across years. In summary, it could be said that high-tech industries have a negative influence on the survival probabilities of newly formed firms, but favour the survival of incumbent firms (Audretsch, Houweling and Thurik, 2000).

Concerning the impact of technology on survival rates, Agarwal (1996) presents contrasting evidence to Audretsch (1991, 1995). She argues that intense technological activities favour the survival of new entrants in the fourth year after entry, while this advantage tends to disappear after 12 years. In addition to that, she notes that there is no linear relationship between firm age, technological activity, and survival. She adds that across all five stages of the product-life-cycle, infant firms (6 or less years old) are exposed to greater exit risks in high-tech industries than in low-tech industries. In opposition to this, incumbent firms (older than 6 years) are exposed to greater risks of failure in high-tech industries. In one of her subsequent studies in 1998, Agarwal shows also that smaller firms in high-tech industries have greater chances of survival than in low-tech industries.

Another industry factor often used by research studies as a surrogate measure of competition is industry concentration. High levels of concentration suggest the market is controlled by a few large players, while a low level of concentration refers to the degree to which a small number of firms provide a major portion of the industry's total production. Audretsch (1994) finds out that new firms that enter in less concentrated and less capital intense industries have greater survival probabilities. Similar findings are offered by other authors who argue that start-ups benefit from the lower level of competition and do not feel the incumbent response much (Baldwin et al., 2001). With regard to the impact of capital intensity, Doms *et al.*, (1995) in their study, argue that firms operating in capital intensive sectors which employ advanced technology are less likely to fail and therefore enjoy higher growth rates. From the evidence presented above, it could be emphasised that in terms of industry

factors, it is the combination of technology, innovation, concentration, and capital intensity what influences the survival probabilities of firms.

Drawing on the above empirical evidence, it could be expected that specific economic sectors in which firms operate affect entry, exit, and survival probabilities of firms operating in Kosovo.

A specific stream of literature has sought to explain the patterns of entry and survival using spatial analysis, namely the impact of location on entry, exit, and survival probabilities of firms. This literature has developed the "inner-city incubator" hypothesis and the "filtering-down" theories to explain factors that impact survival rates (Vernon, 1960); Thompson, 1968; Krugman, 1991). According to the inner-city incubator hypothesis, high manufacturing birth rate takes place in more metropolitan areas. This is because of the fact that by operating in metropolitan areas firms are facilitated by external economies, arising from close proximity to suppliers and customers, increased information circulation, etc. Lerman and Liu (1984) suggest that firm failure varies over spaces, suggesting controlling for geography when modelling survival and failure. Baldwin *et al.*, (2000) show that exit of firms may vary by province and this variation is more prominent when interacted with the age of firms. Similarly, Fotopoulos and Louri (2000) show that new firms located in the capital of the country (Athens) exhibit higher survival rates when compared to their counterparts elsewhere in the country. One of most common variables used by researchers to measure the impact of location on survival probabilities are levels of competition and agglomeration economies. So, Pinkse and Slade (1998) used the Hotelling model of product differentiation to measure the effects of location on survival. The evidence they presented indicates that similarity among firms will enable firms to "steal" some customers of rivals. This makes firms cluster over space and to benefit from externalities. According to the authors, the more this process develops, the more agglomeration economies will emerge. Therefore, it could be argued that agglomeration economies have negative effects on the exit rates of new entrants (Beglund and Brannas, 1996). Over time, when firms become more distinct partly due to the fact that their demand becomes also less elastic, they may enjoy a higher degree of market power, leading to the market power effect (Beglund and Brannas, 2000). Clustering of incumbents can prompt the increase of agglomeration economies, but a high level of new entrants can be a catalyst, as well (Baldwin *et al.*, 2000). As will be discussed later in this review, a high level of entrants is usually associated with a high level of exits, making this one of the striking stylised facts proffered by empirical evidence (Geroski, 1995). Some recent evidence also suggests that the choice of a location affects survival prospects of entrants to all manufacturing sectors (Dunne, Klimek and Roberts, 2004; Pe'er and Vertinsky, 2006a).

Therefore, the above provide evidence on the role of spatial factors on the survival probabilities of firms may lead to expectations that the region in which firms operate in Kosovo may have an impact on the firm survival perspectives.

Research studies have also used a number of macroeconomic indicators to explain patterns of firm dynamics. The most common economic indicators include: unemployment rate, interest rate, exchange rate, level of GDP, level of incomes, etc. For instance, Audretsch and Talat (1995) and Holmes *et al.*, (2000) investigated the impact of unemployment rates and levels of interest rates on the firm survival. They found that high unemployment rates and high interest rates are expected to have a negative impact on survival prospects. On the other hand, as suggested by Baldwin *et al.*, (2001), high growth of GDP has a positive impact on the survival prospects of newly born firms. Beglund and Brannas (2000) found evidence which suggests that due to the greater purchasing

power in regions with higher level of incomes, firms are less likely to fail. By using firm level data from OECD countries Scarpetta *et al.*, (2002) find that higher product market and labour regulations are negatively correlated with the entry of small and medium-sized firms in OECD countries. Klapper *et al.* (2008) have used the data produced by the World Bank Group Entrepreneurship Survey in 2008 to find out that there is a very strong and statistically significant relationship between firm entries and a better business environment. For instance their evidence suggests that greater ease in starting a business and better governance are associated with higher firm entries. Also their findings indicate that a quick, efficient, and cost-effective business registration process is critical for fostering formal sector entrepreneurship. In one of their recent papers, Geroski, Mata and Portugal (2012) found evidence which suggests that firms born in growing (boom) economic conditions are more likely to have almost permanently high survival rates other things being equal, and survival rates are higher during times in which the economy is growing rapidly than in those in which the economy is declining.

Using a comprehensive database of firms in Western and Eastern Europe, Klapper *et al.*, (2004) show how the business environment in a country drives the creation of new firms. They were focused on business environment factors such as governmental regulations, the level of the developed financial sector, a well-trained labour force, strong enforcement of intellectual property rights, and strict labour laws. They find that entry regulations hamper entry, find less entry into countries with less developed financial institutions, and they also find that the general availability of skilled labour enhances entry, specifically in industries that require skilled labour.

There is a specific stream of literature which takes into account *pull* and *push* factors as drivers of formation and exit of firms (Feldman and Balino, 2000; Carter *et al.*, 2003; Bosma *et al.*, 2008). While the firm creation from the first factor derives predominantly from market opportunities, the push factors derive fundamentally from necessity. The push factors (necessity) are seen to be a significant determinant to firm formations specifically in poor countries (Naude, , 2007, 2010a, 2010b, 2013). The distinction between pull and push factors may be seen as being ambiguous since business opportunity depends on the context in which firms are formed and operate. Thus, the opportunity available for someone that operates in a developing country environment is different from someone in a high-income country. This is primarily due to the different business environments. It could be expected that doing business in a developing country is different, due to the low level of education, poor organisational capabilities, resources, and inadequate financial capital (Caballero, 2006). Furthermore, due to the poor institutional framework, it can be expected that in a developing economic setting a large portion of firms operate in the informal sector and therefore these firms are survival firms (Naude, 2007). These types of firms are usually run by self-employed people or, in many cases, have a very small number of employees (Banerjee and Duflo, 2007). In addition, such types of firms which deSoto (1989) calls survivalist firms (entrepreneurs), operate in environments with institutions that are unreliable, with “rules of games” which are not clear (or virtually non-existing), and with “destructive uncertainty” (Berner, Gomez, and Knorringa, 2008). These weak institutional environments generate informality and survivalist firms (deSoto, 1989). As a consequence, it can be expected that though crucial for developing countries (Banerjee and Duflo, 2007) many of these informal and survivalist firms only exist in the market, but are unproductive and essentially face difficulties to grow (Baumol, 1990).

The mounting literature on firm dynamics in the past two decades suggests that there is a large heterogeneity of firms across different interrelated dimensions such as size, growth, market shares,

life cycle etc., and some patterns in the form of stylised facts that have been identified.²⁵ For example, Geroski (1995) provided a number of stylized facts which aim to explain what the drivers of entry are and the effects of newly born firms on markets. Firstly he argues that the entry of new firms into the market is common, and although there is a large number of firms that enter into the market every year, the percentage of firms that manage to penetrate (survive and grow) in the market is small. One of the reasons is the size, since small firms face difficulties to reach the size of incumbents. According to Geroski (1995) this is the first stylised fact, namely, small-scale entry is relatively easy, whereas the large-scale entry is not (Geroski, 1995). Secondly, he adds that differences in entry between industries do not persist for very long, and most of the total variation in entry across industries and over time is 'within' industry variation rather than 'between' industry variation. Thirdly, the entry and exit rates are highly positively correlated, and net entry rates and survival are modest fractions of gross entry rates and survival. More entries occur when super-normal profits are positive and exit when they are negative. In short, entry and exit seem to be part of a process of change in which large numbers of new firms displace large numbers of older firms without changing the total number of firms in operation at any given time by very much (Gerick, 1995: 424). Fourthly, on average, the survival rate of most entrants is low, and even successful entrants may take longer than a decade to achieve a size comparable to the average incumbent. The displacement mechanism affects young firms most severely. Further on, the findings suggest that experience may be a crucial determinant of survival rates, but that it is not quickly acquired (Gerocki, 1995). Fifthly, *de novo* firms are more common but in general they are less successful than entry by diversification. In other words, firms that have access on the deep pockets of a corporate parent operating in some other market can be at an advantage to a new entrant. Sixth, entry rates vary over time (shakeout process) coming in waves which often peak early in the life of many markets, and different waves tend to contain different types of entrant.²⁶ Finally, the seventh stylised fact presented by him is related to the cost of adjustment. He argues that costs of adjustment seem to penalize large-scale initial entry and very rapid post-entry penetration rates. This stylised fact is part of the explanation of the observations summarized in stylized fact number four given above which explains that successful entrants may take longer than a decade to achieve a size comparable to the average incumbent. It is worth saying that many of the above stated stylised facts have been confirmed by various empirical studies in subsequent years.²⁷

In their empirical studies, Bartelsman *et al.* (2004, 2009) have confirmed most of these stylised facts provided by Geroski (1995). They show that the population of firms undergoes significant changes over time, both through resource reallocation between existing firms and the process of firm entry and exit. Further on they note that the efficiency of an economy to deal with the reallocation processes is relevant not only for the productivity dynamics, but also for the dynamics of the labour market and in particular dealing with the unemployment issues. Finally they argue that there is a significant heterogeneity of firms in each market and country, which is manifested in large

²⁵Nunes and Sarmento, 2012; Carreira and Teixeira, 2011; Klapper et al., 2009; Plehn-Djowich, 2009; Cabral, 2007; López-García, Puente, (2006); Bartelsman et al., 2004; Pakes and Ericson, 1998; Sutton, 1997;Geroski, 1995.

²⁶*Shakeouts*: The number of producers in a given market tends first to rise to a peak, and later to fall to some lower level. Entry rates tend to be higher for more recent industries but also tend to decline as the industry matures (Klepper and Graddy, 1990; Klepper and Simons, 1993; Geroski, 1995).

²⁷Griliches and Regev, 1995; Olley and Pakes, 1996; Davis and Haltiwanger, 1999; Ahn, 2000; Foster, Haltiwanger and Krizan, 2001, 2002.

disparities in firm size, firm growth and productivity performance. The following are the main stylized facts identified by this study:

1. The average size of incumbent firms varies widely across sectors and countries. The variety in firm size is largely driven by within-sector differences, although in some countries sectoral specialization also plays a significant role. They find that smaller countries tend to have a size distribution skewed towards smaller firms, but the average size of firms as well as the dispersion within and across countries do not map precisely with the overall dimension of the domestic market.
2. Researchers present evidence that firm churning (entry and exit of firms) is large. They add that gross firm turnover involves 10 to 20 per cent of all firms in industrial countries, with a slightly higher percentage in transition economies. Newly born firms, as well as exiting firms tend to be small and thus firm flows affect only about 5-10 per cent of total employment, suggesting that the entry of small firms is relatively easy, while larger-scale entry is more difficult but, survival among small firms is also more difficult and many small new-comers fails before reaching an efficient scale of production.
3. They find empirical evidence that suggests that entry and exit rates are part of the same process (similar to Geroski's stylised fact number 3), and in most investigated countries entry and exit rates are correlated across industries. Their findings confirm that without affecting significantly the total number of firms in the market at each point in time, a large number of new firms displace a large number of obsolete firms. The authors also argue that in transition economies and some emerging countries evidence shows weaker correlations because of stronger structural changes in their economy with declining traditional sectors and expanding modern sectors.
4. Another stylised fact presented by the authors is related to market selection, which appears to be very harsh, because they show evidence that about 20 to 40 per cent of entering firms fail within the first two years of life. Further on they find evidence that confirms previous findings on size and the growth of firms (Klepper and Simons, 1993; Geroski, 1995), which shows failure rates decline with duration; i.e. conditional on surviving the first few years, the probability of survival becomes higher. Finally they show that only about 40-50 per cent of total entering firms in a given cohort survive beyond the seventh year.
5. Once newly born firms manage to survive, they show a tendency to expand rapidly. Surviving firms are not only relatively larger but also tend to grow rapidly. Further on the authors argue that the combined effect of exits being concentrated amongst the smallest units and the growth of survivors makes the average size of a given cohort increase rapidly towards an efficient scale.
6. The authors point out that the model of creative destruction is very important for promoting productivity growth. The process of restructuring and upgrading by incumbents is crucial to improve aggregate productivity, but the role of firm dynamics through the entry of new firms and the exit of obsolete units is also essential in this process. This is particularly evident in high-tech industries, in which new technologies are often better harnessed by new firms.
7. According to these authors, the model of creative destruction not only promotes aggregate productivity, but also promotes market contestability, and this is done primarily through promoting productivity-enhancing strategies of incumbents. They have found some preliminary evidence that shows that there is a significant correlation between firm turnover rates and incumbent productivity growth across industries and countries; and there is also a

significant correlation between the net entry contribution to productivity and incumbent productivity growth. So growth comes through incumbents, which are pressurized by newcomers, but newcomers do not necessarily grow.

8. This tends to confirm that higher firm turnover is associated with stronger productivity growth of incumbents, and the more effective the process of creative destruction is for productivity, the more it stimulates growth by incumbents.

Bertelsman *et al.*, (2009) find that the creative destruction process demonstrates greater impact in the five Central and Eastern European countries in transition.²⁸ The authors found that the process of creative destruction manifested through firm creation and destruction is generally larger in transition countries than in industrial countries, because many new smaller firms have been replacing obsolete larger units inherited from the central plan period. Smaller firms find their business opportunities through filling in new market niches, especially in the early years of transition when there is less competition and higher survival rates. However, due to the reaction of market forces, transition economies reach some stabilization and equilibration in entry and exit rates, as well as with increasing failure rates among new firms. Also they find that the process of resource reallocation, shifting resources to new but also more productive firms, becomes increasingly effective over the transition stage.

Attempting to give a broad direction in theorizing and mapping the agenda for empirical work, researchers have used different theoretical frameworks. In one of his study, Ahn (2001) discusses the three most common theoretical frameworks which are commonly used to explain the link between firm dynamics and the growth of firms.

Schumpeter's (1934) theory on firm growth and more specifically his concept of "creative destruction" has been used as a reference for theoretical framework models. His model is seen to be vital for the continued dynamism of the modern economy (Klapper, Richmond, 2009). Ahn (2001: 5) offers the following explanation on the "creative destruction" model: "a new innovator enters a market with new technology and competes with incumbents with conventional technology. If the innovation is successful, the entrants will be able to replace the incumbents. If not, they will fail to survive. Competition weeds out the unsuccessful firms and nurtures the successful ones. When incumbents who have already accumulated substantial experience with conventional technology are less enthusiastic about taking risks of adopting new technology, new entrants aggressively experimenting with new technology can be a driving force of innovations. Aggregate productivity evolves with successive innovations through entry and exit, while this process reallocates resources from losers to winners". Because of this competitive process, the reallocation of resources from losers to winners occurs. This process is seen to be an essential component in productivity growth which governs the pace at which potentialities opened by new technology can be exploited (Nelson, 1981). A distinguishing aspect of Schumpeter's theory is related to the fact that it recognizes heterogeneity amongst firms, and firm dynamics (through entry, exit, expansion and contraction) is essential in developing and creating new processes, products and markets (Bartelsman *et al.*, 2004).

²⁸Subject of research were Estonia, Hungary, and Slovenia which at that time by World Bank were listed as middle-income countries, and Latvia, and Romania as developing countries.

Another theoretical model that shapes the firms dynamics and heterogeneity of firms is experimentation under a competition and uncertainty framework (Foster *et al.*, 2001). The underlying rationale behind this framework is the following: uncertainty about the demand for new products or the cost-effectiveness of alternative technologies encourages firms to experiment with different technologies, goods and production facilities (Roberts and Weitzman, 1981). Experimentation, in turn, generates differences in outcomes (Jovanovic, 1982; Ericson and Pakes, 1989). In order to optimally position themselves for possible future circumstances, and even when incentives for experimentation are absent, uncertainty about future cost or demand conditions encourages firms to differentiate their choice of current products and services (Lambson, 1991). This model of thinking is consistent with the stylised fact number two given above which states that the higher percentages of newly born firms tend to come from small firms. This is probably because entrepreneurs are uncertain about future demand and they get incentives to expend through experimentations which inform them about future profits. Operating under uncertain conditions, enables them to learn about the business environment they are dealing with, and also to learn about the capabilities they possess to cope with the challenges that may arise. The learning process might be “passive” or “active”. The passive learning model is explained by Jovanovic (1982) who states that new firms enter a market without being informed about the potential profitability *ex ante*. Only after they start business operations do they begin to understand about potential profits, and this information comes primarily from their own realised profits. This information serves for firms to build future decisions on whether to expand, contract, or exit from the market. This framework thus explains why many young firms decide to exit from the market sometimes very quickly after entering the market, and also predicts that smaller and younger firms will have higher and more variable growth rates. This model of thinking explains stylised fact number 4 which predicts that failure rates decline with duration and the older the firm the higher probability to survive.

In opposition to this framework stands the active learning framework (Ericson and Pakes, 1995). This model of thinking states that firms explore their economic environment actively and invest to enhance their capability to earn profits under competitive pressure from both within and outside the industry (Ahn, 2001). Over time their profits as well as their business potential evolve. This happens primarily because of the investments they may have implemented, but also as a result of response to the reaction of other actors that operate in the same market. Consequently, if firms manage this process successfully, they manage to grow, otherwise if they fail to respond adequately to market demands; they either shrink, or exit from the market.

In short, according to the passive learning model, a firm enters a specific market without previous knowledge about profitability, and that information is gained after noisy information from realised profits. Only when firms start continually updating such learning, do they decide about their future (Jovanovic, 1982). On the contrary, an active learning firm is the one which under competitive pressure explores its economic environment actively and invests to enhance its capability to earn profits (Ericson and Pakes, 1995).

The third theoretical model according to Ahn (2001) is the technology and product cycle framework. According to this model, firm dynamics are influenced by the technological environment, for example, in the product life cycle model.²⁹ This model is linked with the appearance of new product,

²⁹Gort and Klepper (1982), Klepper and Graddy (1990), Klepper (1996), and Agarwal and Gort (1996), among others.

meaning that when a successful new product appears, the market grows rapidly and a large number of new firms enter. The inverse situation occurs when the market matures. In this situation the growth of demand decelerates and economies of scale become more important, and as a result, the number of firms in such new industries grows at first, then declines sharply, and finally levels off. All this means that during the unsettled stage of the product life cycle, it is relatively easy to enter, and it is particularly difficult to survive through the next stage where the number of firms declines sharply. According to the interpretation of Gort and Klepper (1982) by Mata *et al.* (1995), therefore, high rates of turnover (i.e. entry and exit) are observed in the earlier stages of product life cycle.

A model which explains the pattern of shakeout of firms as product markets mature is the one proposed by Jovanovic and MacDonald (1994). According to this model, at the beginning firms all use a common technology. Over time a new technology which offers low unit costs but higher levels of output per firm emerges. By attempting to cross from old technology to the newer one, this process causes a shakeout of first firm generation, and the survival of a smaller number of firms which employs the new larger scale technology (Bartelsman *et al.*, 2004). Assuming some imperfection in capital markets and inertia in sales, larger firms will invest more on fixed costs for product innovation, and over time tend to displace smaller firms generating the shakeout (Klepper, 1996).

Drawing on what is analysed above, this review can be summarised as follows:

- The empirical evidence on firm dynamics strongly supports the view that formation of new firms and the decline of unproductive ones are fundamental to the overall dynamism of an economic setting. The evidence suggests that there is a significant correlation between firm turnover rates and incumbent productivity growth across industries and countries; and there is also a significant correlation between the net entry contribution to productivity and incumbent productivity. Through stylised facts the literature suggests that growth basically comes from incumbent firms that are pressurised by new entrant firms, which on their part do not necessarily grow.
- The firm specific variables, such as size, age, legal structure, and adaptability to new technology explain differences related to firm survival prospects. Literature also suggests that industry specifics represented commonly through variables such as the growth stage of specific industries, average firm size of an industry, and the type of industry in which firms operate play crucial roles in the survival prospects of firms. Finally, empirical evidence suggests that location/region in which firms operate is likely to be related to the survival of firms. Studies also have addressed and found evidence that macroeconomic factors, as well as factors related to the internal characteristics (organisational capabilities and managerial practices) of firms have significant impact on the survival of firms.
- Attempting to give a broad direction in theorizing and mapping the agenda for empirical work, researchers have presented various stylised facts. One of the less controversial stylized facts mostly observed by empirical research states that a high number of firms enter and exit the market every year, and most of them are involved in the search process rather than competing against their rivals in the market (Bartelsman *et al.*, 2004). The second most characteristic stylized fact states that firm entry is more likely to occur in smaller size classes. This is so primarily due to the fact that firms are uncertain regarding future profitability and therefore most firms prefer to enter with a relatively small scale in order to have minimum costs in case of exit. It is also a widely accepted stylized fact that

small firms grow faster than large firms and that exit rates decline with size (Bartelsman *et al.*, 2004, 2009).

- The literature argues that the model of creative destruction is very important for promoting productivity growth, which is done through the process of restructuring and upgrading by incumbents as well as through the entry of new firms and the exit of obsolete units. The model of creative destruction not only promotes aggregate productivity, but also promotes market contestability, and this is done primarily through promoting productivity-enhancing strategies of incumbents. The most important element is that empirical evidence shows that growth is driven by incumbents pressured by creative destruction and the effects of new entrants are de facto secondary (World Bank, 2008).
- Despite a growing body of empirical evidence on firm dynamics and its impact on productivity growth, this literature suffers from a number of drawbacks. First, most empirical studies are focused on firm behaviour in the developed countries (Caves, 1998), and there is little evidence available that explains the role of firm dynamics in the growth of firms in developing countries. Second, while research managed to find more evidence on the link between firm dynamics and firm growth in developed countries, there is not enough evidence to establish that link in undeveloped countries (Klapper and Richmond, 2009). Third, there is little evidence that might illuminate the impact of business constraints on productivity growth, and the literature on relative productivity of entrants and on the learning and selection processes that affect post-entry productivity dynamics (Brown and Earle, 2010). Fourth, there have been attempts to study the relative productivity of entrants and the learning and selection processes that affect post-entry productivity dynamics. However, problems in relation to more accurate measurement of entry and post-entry dynamics in the data; and problems with the time series which are usually short and contain numerous gaps, cohorts of entrants are not followed over time (Brown and Earle, 2010).

In sum, the purpose of this section was threefold: to examine the current status of research related to firm dynamics, identify gaps within this literature, and to see where the theory on firm dynamics can best be augmented. It is clear that most of themes related to firm dynamics have been examined considerably. Aiming at finding evidence that explains the impact of firm dynamics on firm productivity growth, the vast majority of research studies have been focused on developed economies. There is less evidence which could illuminate our knowledge about the relationship of these two variables in developing countries. Drawing on the findings from the literature review, this research study attempts to address this gap, and thus provide further evidence on firm dynamics patterns in developing economic settings, and in this way offer a further contribution to the firm dynamics literature. The empirical evidence is analysed by using the theoretical framework provided in the following section.

3.2. Theoretical perspective

In formulating the theoretical framework for investigating specifics of firm dynamics in Kosovo, this study draws on the growth theory developed by Schumpeter (1934). There are several models

through which this theory attempts to shed light on the growth process.³⁰ This study uses the model of firm dynamics, which can generate predictions on the dynamic patterns of firms (entry, exit, survival, and reallocation of resources) and to explain how these patterns shape the overall growth process (Aghion *et al.*, 2013).

One of the fundamental concepts on which this model draws is that of “creative destruction”. The process of creative destruction provides an account of how competition weeds out unsuccessful firms and nurtures the successful ones. Evidence in the form of stylised facts suggests that the impact of creative destruction on the growth of firms in developed countries is significant (World Bank, 2008). According to this evidence healthy market economies are characterised by a high pace of firm churning, i.e. reallocation of outputs and inputs across firms (Bartelsman *et al.*, 2009). This firm churning influences the productivity growth which mainly comes from incumbent firms.

To explain the impact of firm dynamics on the growth of firms, the literature sets out three fundamental factors: entry, exit, and firm survival. Empirical evidence on firm dynamics suggests that these factors are influenced by broad classes of variables such as those related to firm specifics, industry specifics, macroeconomic factors, and spatial factors (Mata and Portugal, 2002; Audretsch and Mahmood, 1994; Audretsch, Santarelli and Vivarelli, 1999; Pe’er and Vertinsky, 2006a). Drawing on this evidence, it could be stated that firm dynamics in developing countries is also a function of firm specific variables, industry specific variables, macroeconomic factors, and spatial factors. Each of these variables has its own properties. For instance, firm specific variables reflect individual properties of firms such as size, age, legal structure, adaptability to new technology, organisational capabilities, managerial practices, etc. Industry specific variables reflect characteristics of industries such as the growth stage of a specific industry, the average firm size in an industry, the type of sector/subsector in which firms operate, the level of competition (concentration) in an industry, etc. Macroeconomic variables are reflected by the level of economic and political stability, unemployment rate, interest rate, exchange rate, level of GDP, level of incomes, etc. Spatial variables are reflected by firm location, levels of competition in the region, and agglomeration economies.

In order to investigate the impact of firm specific properties on firm dynamics in Kosovo, this study has used the following explanatory variables: size of the firm, legal structure, economic sectors, and spatial factors. Size of the firm is used to investigate the patterns in entry, exit, and survival rates of firms, for both the manufacturing sector and for the total economy. The firm legal structure is used to investigate whether governance factors have any impact on survival rates. With regard to industry specifics, this study has used manufacturing, service, and construction sectors as explanatory variables to investigate variances on survival perspectives. Finally, with regard to spatial factors, location/region in which firms operate was used to explain differences in survival patterns.

Though the subject of analysis is Kosovo’s economy, this study does not look at firm dynamics in Kosovo as an isolated case. Findings from Kosovo’s economy are compared to other countries with different level of incomes. Hence, to compare differences in firm dynamics patterns with comparator countries the analysis is conducted by using the countries’ income-level as an

³⁰Aghion *et al.*, (2013) talk about four aspects on which this theory delivers distinctive predictions: (i) the role of competition and market structure; (ii) firm dynamics; (iii) the relationship between growth and development with the notion of appropriate growth institutions; (iv) and the emergence and impact of long-term technological waves.

independent/explanatory variable. Overall, there are three elements around which this theoretical perspective is built: the Schumpeterian theory of creative destruction, the stylised facts from empirical evidence, and the findings on firm dynamics from comparator countries.

With these specific variables, this theoretical framework can be adapted as follows: the potential growth of firms in Kosovo is a function of the turbulence of firms and the interaction of the turbulence with the growth of incumbent firms. This interaction is enabled by the process of creative destruction which is shaped by a variety of firm specifics, industry specifics, local factors, and income levels as a conditional independent variable which interacts with these factors.

The research question related to firm dynamics is as follows: *is firm dynamics one of the factors that influences the growth of firms in Kosovo?*

The following are the overarching two hypotheses to be tested by this study:

H1. The dynamics of firms influences the growth of firms in the Kosovo's economy.

The hypothesis relating to factors that influence survival probabilities in Kosovo is the following:

H2. Firm survival probabilities are the function of differences in size of the firm, the type of legal structure, economic sector, and the region in which they operate.

3.3. Data description and definitions

The analysis was carried out by using two datasets which cover a group of variables that explain characteristics and patterns of firm churning. The first dataset covers firms that were active in the country during 2010 to 2013 provided by Tax Administration (hereafter TA).³¹ The second dataset contains firms that were registered for the first time in the Kosovo Business Registration Agency (hereafter KBRA) as well as firms that were recorded as exit firms in the registers of this agency (for more information about the dataset construction see Appendix A). This dataset covers firm entries and exits for 6 years, from 2008 to 2013. Firms that were created or closed as a result of, for instance, restructuring, merger, or break-up are not included in the datasets.

The main indicators used in the analysis include: stock of active firms, number of newly born firms, number of firm deaths, distribution of firms in terms of size, related variables on employment, and dynamics of firm survival up to four years. The utilisation of these indicators allows derivation of other indicators such as birth rates, exit rates, survival and hazard rates, and employment shares.

The registries obtained from KBRA contain firm details such as names of firms, date of the establishment, the exit date, their addresses, name of the owner, the type economic activity undertaken, number of employees at the time of establishment, etc. Data obtained from tax authorities are aggregated, meaning that they provide information only about the active firms distributed in sectors, subsectors, their employment records over the years, and their total revenues for four years. The analysis was undertaken using a range of variables which have been broken

³¹The dataset provided by TA contains the list of firms that are active in the sense that they are in the registry of the tax payers and continue to pay taxes.

down to look at specific sub-populations by economic activity, ownership (legal form), or size (as defined by the number of employees). In the section where analysis on stock of total registered firms is carried out, the dataset covers firms that were active during 2010 to 2013. The same period was used to analyse the flow of newly-born and exit of firms. Analysis concerning firm survival is performed based on cohort firms that entered and exited from the market during 2008 to 2013. More specifically, analysis in this section utilises a sample of 40, 069 firms born during this period, including 9,151 firms that exited from the market during the same period of time.³²

The analysis is carried out based on the definitions and methodology provided by the Manual of Business Demography Statistics (OECD/Eurostat, 2008). The unit of analysis in this study is “firm” as opposed to plant or establishments. In other words, a firm with several active plants is considered as only one observation. The definition of firm is essentially the same as one used for enterprises, and it is in conformity with the definition provided by Eurostat/OECD (2008: 12):

“The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.”

It is useful to emphasize at the outset that since data on self-employed workers are not available, this type of business activity is excluded from the observations. All observations in the dataset correspond to firms that are identified by a tax specific identity number. This makes it easier to track them over time. Also the informal economy is not subject of this study.

The definition of the birth of a firm is also in conformity with Eurostat/OECD (2008: 77). A birth amounts to the:

“Creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to mergers, break-ups, split-off or restructuring of a set of enterprises. It does not include entries into a sub-population resulting only from a change of activity. A birth occurs when an enterprise starts from scratch and actually starts activity. An enterprise creation can be considered an enterprise birth if new production factors, in particular new jobs, is created. If a dormant unit is reactivated within two years, this event is not considered a birth. Within this type of firms are those firms that have at least one paid employee in its birth year”.

The concept of death of the firm also is in line with the Eurostat/OECD (2008: 77). Therefore, a death amounts to:

“Dissolution of a combination of production factors with the restriction that no other enterprises are involved in the event. Deaths do not include exits from the population due to mergers, take-overs, break-ups or restructuring of a set of enterprises. It does not include exits from a sub-population resulting only from a change of activity. An enterprise is included in the count of deaths only if it is not reactivated within two years. Equally, a reactivation within two years is not counted as a birth”.

³²In the section where survival and hazard rate models were used for analysis, the total number of firms was 51,989. This is because the number of firms born in 2013 was excluded from the sample.

Some definitions used specifically for survival analysis will be discussed in the relevant section.

Although in principle for this research study there is no size threshold, essentially the datasets cover three firm categories: micro (1 to 9 workers), small (10 to 49 employees), and medium firms (50 to 249 employees).

The process of analysis was conducted by using the comparative method. Findings of firm dynamics in Kosovo were compared with those of comparator countries, extracted from the study on firm dynamics of Bartelsman *et al.* (2009). The comparative method is considered to be inherent in all science, including the social sciences, where this approach has historically played a significant role (Lijphart, 1971; Ragin, 1987; Cullier, 1993, 1998). The central goal of comparative analysis in this study is in identifying and assessing the similarities and differences of firm dynamic patterns of Kosovo with other comparator countries. Bartelsman *et al.* (2005: 1) point out that the comparative study may be particularly useful to test the hypothesis that market structure and institutional differences across countries affect the observed magnitude, nature and efficiency of the creative destruction process. However, these “meta analyses” or ex- post comparisons of country studies are inherently difficult given differences in measurement and methodology across studies (Bartelsman *et al.*, 2009).

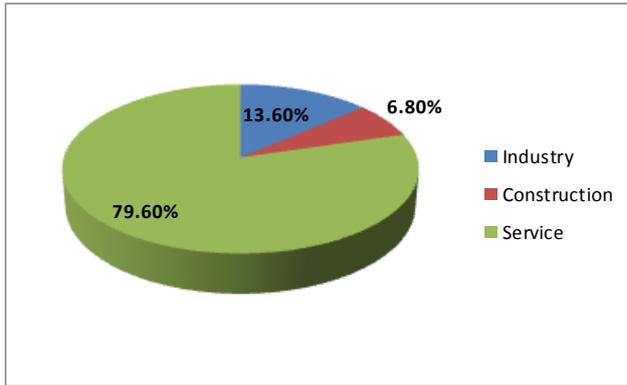
This method is useful specifically when there is a systematic analysis of small number of cases (“small-N” analysis), and in the situation of limited resources (Cullier, 1998). As stated above, for the purpose of comparative analysis, this study uses the outcomes derived by the study of Bartelsman *et al.* (2009). The authors have used a sample consisting of 18 countries with different income level. It is worth pointing out that throughout the chapter the income level was used only as a conditional explanatory variable. The aim was to investigate where the firm dynamics in Kosovo stands relative to other comparator countries.

3.4. Stock of incumbent firms in Kosovo (2010 – 2013)

The following section provides a general overview of the population of firms in Kosovo’s economy that have been active from over four years that is from 2010 to 2013.³³ It concentrates on aggregated data for three main economic sectors, namely industry, construction, and service sectors. Findings suggest that the population of incumbent firms in Kosovo is dominated by the service sector. On average, more than three quarters (79.6%) of the firm population was active within the service sector, providing 77.6 percent of the total number of people employed. In contrast, only 13.6 percent of active firms were found in the industry sector, although these firms provided slightly higher work to 15.3 percent of the total of people employed. In the construction sector the proportion of active firms was 6.8 percent, with 7.1 percent of the total number of people employed (see Figures 3.1 and 3.2 below).

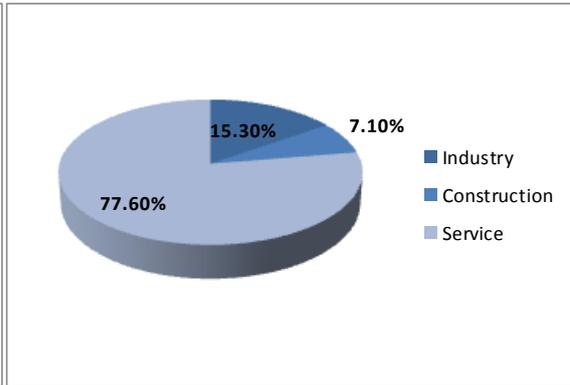
³³The dataset that provided by Tax Administration covers only the period 2010 to 2013. This dataset allows for the analysis of incumbent firms and their evaluation over time.

Figure 3.1. Proportion of active firms by sectors, 2013



Source of data KBRA & TA

Figure 3.2. Proportion of employment by sectors, 2013

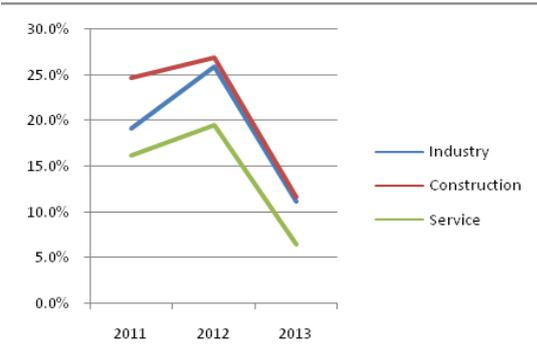


Source of data KBRA & TA

3.4.1. Evolution of incumbent firms over time

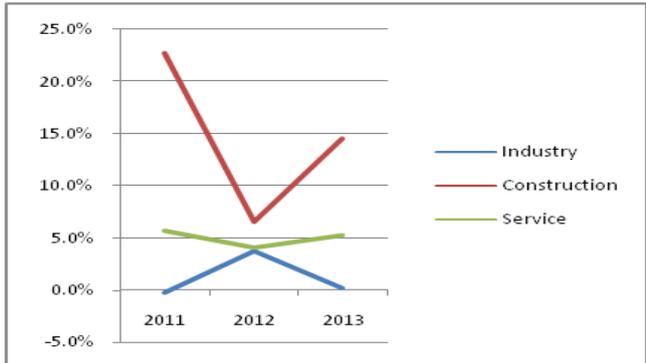
Figures 3.3 and 3.4 show the evolution of the growth rate in terms of number of firms and in terms of people employed for three sectors. In general, the three sectors show similar trends, namely each of them has recorded an increase from 2010 up to 2012, and then a decline in 2013. A closer look suggests that the higher growth, for both in terms of number of firms and people employed, was recorded for construction. In this sector the number of firms rose, on average, 21.1 percent per annum during 2010 to 2013, while the corresponding growth rate for people employed averaged 14.6 percent.

Figure 3.3. Growth rates of incumbent firms, 2010 - 2013



Source of data KBRA & TA

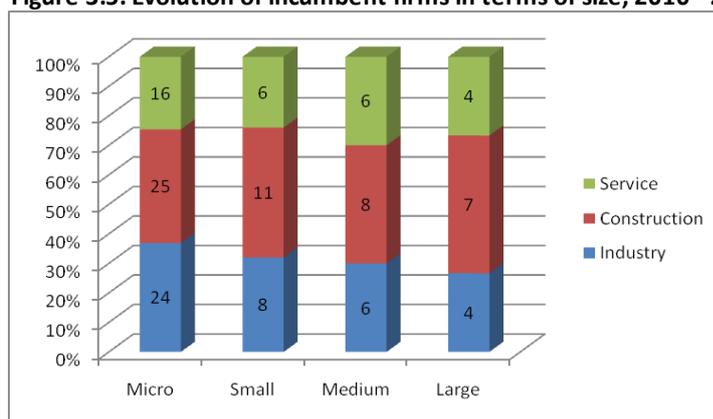
Figure 3.4. Rates of persons employed, 2010 - 2013



Source of data KBRA & TA

With regard to the evolution of firms in terms of size, the results show that micro firms experienced the higher increase. As the Figure 3.5 below indicates, the number of micro size firms increased on average by 22 percent during the period 2010 to 2013. The highest increase was accounted for in the construction sector (25 percent), followed by the industrial sector (24 percent). The difference between micro firms and other groups of firms is very large. For instance, the number of medium and large firms was increased by only 7 per cent, and 5 per cent respectively, with the highest increase found in the construction sector – 8 and 7 percent on average.

Figure 3.5. Evolution of incumbent firms in terms of size, 2010 - 2013



Source of data KBRA & TA

3.4.2. Stock of incumbent firms by sectors

Within the industrial sector, the largest number of firms was accounted within the food and other production activities. As the Table 3.1 shows, this subsector accounted for 72 percent of all industrial firms. Two other sectors that had a relatively high share of the number of firms were agriculture, forestry and fishing which accounted for 20.8 percent, and mining subsectors which accounted for 3.5 percent of all firms in the industrial sector. With regard to employment, the production subsector accounted for 58.1 percent of the total industrial workforce, while 20.8 percent of those employed were active in the agriculture, forestry, and fishing, and 3.5 percent of employment is linked with the mining subsector. These figures underline the relatively small average size of firms specifically in the agriculture subsector, where 0.79 people were employed per firm on average. Production activities have reported a relatively higher average number of people employed at 2.8 employees per firm. A higher number of people employed per firm was reported by mining, electricity, gas and water for 9.82 and 65.89 respectively. Concerning the average annual growth rate of the number of firms, the higher rates were found in agribusiness, forestry and fishing subsector (41.2 percent annually), followed by production and recycling (21.2 and 19.4 percent respectively). With respect to the annual growth rate of people employed, the higher rate was found in recycling industry (31.5 percent), while the mining subsector reported a reduction of employment (-4.8 percent annually).

Table 3.1. Structure of active firms in the industrial sector, 2013

	Share of the number of firms (%)	Share of the number of persons employed (%)	Average number of persons employed per firm (units)	Average annual growth rate of the number of firms 2010 - 2013 (%)	Average annual growth rate of the number of persons employed 2010 - 2013 (%)
Agriculture, forestry, fishing	20.8	4.7	0.79	41.2	8.8
Mining	3.5	9.9	9.82	9.2	-4.8
Manufacturing	72.1	58.1	2.8	21.2	3.9
Recycling	2.2	1	1.72	19.4	33.5
Electricity, gas and water supply	1.4	26	65.89	15.8	-2

Source of data KBRA & TA

With regard to the services sector, more than half of all the active firms were active in either the retail (32.7 percent) or wholesale trade (19.2 percent) - see Table 3.2. Together these two sectors accounted for 23.4 of services employment (14.8 and 8.6 percent respectively). Most service subsectors reported an average number of people employed that was less than five people per firm. The lowest value was registered for other services (0.5), retail trade (0.79), and real estate services

(.88). However, some other services reported a significantly higher average number of people employed per firm, such as other unknown and international firms (airport 49.1), financial services (28.95). All services sectors reported to have an increase in their respective number of active enterprises between 2010 and 2013, and apart from other services and public administration, all services subsectors boasted net job creation. The average employment growth rate for the services sector was 7.7 percent. Among subsectors that reported employment growth that was above the services average of per annum were professional organisations (12.6), real estate (12.5), and wholesale trade (11.5).

Table 3.2. Structure of active firms in the services sector, 2013

	Share of the number of firms (%)	Share of the number of persons employed (%)	Average number of persons employed per firm (units)	Average annual growth rate of the number of firms 2010 - 2013 (%)	Average annual growth rate of the number of persons employed 2010 - 2013 (%)
Wholesale trade	19.2	14.8	2.32	13.1	11.5
Retail trade	32.7	8.6	0.79	11.1	9.3
Hotels & Restaurants	10.8	4.2	1.18	17.1	7.6
Transportation	10.2	5.8	1.7	15.4	2.6
Financial intermediation	0.4	3.9	28.95	8.6	4.4
Real estate services	1.2	0.3	0.88	32.2	12.5
Professional organisations (auditing, research, etc)	7.3	3.4	1.39	19.6	12.6
Public administration	0.6	2.3	11.31	13.1	-2.4
Education	1.3	1.9	4.3	16.1	11.1
Healthcare	3	2.5	2.6	8.5	6
Other business services	2.4	2.5	3.1	24.1	-0.5
Artistic services	2.5	1.6	2	24.8	8.9
Other services	5.6	0.9	0.5	15.9	10.5
Other unknown, including international firms	2.9	47.3	49.1	16.5	4.7

Source of data TA

3.4.3. A comparison of the distribution of incumbent firms by size of Kosovo's economy with comparator countries

The following section provides an overview of the distribution of active firms in terms of size. Empirical evidence on firm dynamics suggests that smaller firms are more subject to the churning process, and at the same time they show greater potential to grow (Sutton, 1997). According to Bartelsman *et al.*, (2009) distribution of firms towards a smaller size implies higher entry and exit figures, but also greater post-entry expansion of firms that survive. Further on, for these authors an alternative explanation would be that in some countries this could signify a sectorial specialisation towards new industries, in which churning tends to be larger, and also indicates that more firms may experiment with new technologies. Both these authors also point out other factors which may influence the churning process, namely smaller firms may not be subject to institutional factors (for instance small firms may not be subject to strict labour regulations), those related to internal market dimensions or business environment factors within which firms operate, because they can easily avoid them in countries with weak enforcement.

Tables below compare the share of firms and the associated employment for Kosovo as a developing country with other developing countries, as well as those of developed countries. Firms are compared through two classes, namely those that employ fewer than 20 employees (Table 3.3), and those that employ 20-49 employees (Table 3.4). Findings suggest that the population of firms in all countries is dominated by micro and small units. While in most countries micro firms (fewer than 20

employees) account for on average 80 percent of the total population, their share in the employment level is much lower and ranges from 12.9 percent (Romania as a developing country and Slovenia as middle income country) to 35 percent in some developed countries.

The share of micro firms to the total economy in Kosovo does not indicate any significant difference either to its peers (developing countries), or to other comparator countries. However, findings indicate that the share of manufacturing micro firms operating in Kosovo in the total number of manufacturing firms is higher than its peers, and significantly higher than other comparator countries (with exclusion of Netherland). The difference in share of total employment of micro firms is more significant in the Kosovo's economy than in all comparator countries, including peers. The share in employment of micro firms in total employment is much lower in comparator countries. It ranges from less than 12.9 percent in, for instance Romania as a low income country, to 35 percent in Italy as a high-income country. The share of employment in the total economy is almost double other comparator countries. With regard to two sectors (manufacturing and service sector), the share of employment in the manufacturing sector is significantly lower than other peer countries (excluding Rumania), while the percentage of micro firms in the service sector is significantly higher than other comparator countries.

Table 3.3. The share of micro firms in the total population of firms and in total employment (Firms with fewer than 20 employees as a percentage of totals)

Comparator Countries	Firms			Employment		
	Total Economy	Manufacturing	Service	Total Economy	Manufacturing	Service
High income						
USA	88.0	72.6	88.7	18.4	6.7	19.9
Danmark	91.3	76.6	92.3	32.7	17.6	35.0
Netherland	96.3	88.3	97.1	31.8	18.3	32.9
UK	-	81.3	-	-	12.4	-
Finland	93.6	85.4	95.3	29.5	13.5	39.1
Germany	89.6	83.3	-	25.8	16.6	-
France	82.1	77.9	82.0	15.9	19.9	13.6
Italy	93.8	88.6	96.0	35.9	31.3	36.4
Portugal	89.2	75.3	93.8	32.2	18.9	42.9
Upper Middle Income						
Slovenia	87.7	71.6	93.1	13.4	5.1	26.0
Argentina	90.0	82.1	91.2	27.7	21.3	27.7
Hungary	84.4	71.1	90.8	16.0	8.8	23.6
Mexico	90.1	82.8	92.2	23.2	13.9	28.5
Estonia	80.6	64.6	87.1	22.8	11.5	34.2
Low-income						
Brasil	-	82.4	-	-	17.7	-
Latvia	87.7	87.8	87.6	24.7	26.9	24.2
Romania	90.9	77.7	95.6	12.9	4.2	31.6
Kosovo	91.3	88.7	92.3	50.2	9.8	48.7

Source: For comparator countries: Bartelsman *et al.*, 2009

For Kosovo, TA

The following section attempts to check the robustness of these results, by looking at the incidence of small and medium firms, i.e. the population 20-49 over the total 20+ (Bartelsman *et al.*, 2009). The table below indicates that the share of small and medium firms in the total population of firms that employ more than 20 employees is significantly higher in the case of Kosovo's economy than all comparator countries regardless of level of income. More specifically, Table 3.4 indicates the share of firms with 20-49 employees (in the total population of firms with 20 or more employees) account from 58 percent (Romania) to 62 percent in LIC (Latvia). The share of these firms in industrial countries is higher, for instance Denmark with 67.6 percent and Portugal with 64.0 percent.

Clearly the evidence obtained in Kosovo as a developing economy suggests that the share of this type of firm is significantly higher compared to comparator countries, specifically comparing with Latvia, or Romania. There can be many factors as to why firms in developing countries tend to remain small, including institutional factors which may push firms to stay very small or to move to higher scales (Bartelsman *et al.*, 2009), or other factors which could be related to the capacity of internal resources (Barney, 1990) .

Table 3.4 The share of small firms in the total population of firms and in total employment (firms with 20-49 employees as percentage of 20+)

Comparator Countries	Firms			Employment		
	Total Economy	Manufacturing	Service	Total Economy	Manufacturing	Service
High income						
USA	62.7	63.1	65.0	12.2	12.7	13.5
Danmark	67.6	69.7	66.9	22.5	22.0	22.9
Netherland	58.8	58.5	62.9	15.3	13.9	18.6
UK	-	-	-	-	-	-
Finland	61.0	65.4	61.8	16.3	21.8	19.1
Germany	59.0		60.7	17.2		17.7
France	53.2	49.9	53.3	12.9	11.2	12.9
Italy	67.3	65.5	69.4	20.0	15.6	22.8
Portugal	64.0	69.2	63.5	22.6	22.9	22.0
Upper Middle Income						
Slovenia	38.5	49.8	38.4	7.4	12.4	7.2
Argentina	61.1	60.6	61.7	18.4	16.8	18.6
Hungary	54.6	61.9	56.2	12.9	14.3	12.4
Mexico	59.0	62.9	58.9	15.1	17.1	16.0
Estonia	45.3	55.1	46.2	22.1	17.0	21.3
Low-income						
Latvia	58.1	58.0	46.2	17.8	17.5	17.9
Romania	45.3	55.1	57.9	5.7	11.2	5.5
Kosovo	71.0	72.8	71.0	25.2	20.7	27.0

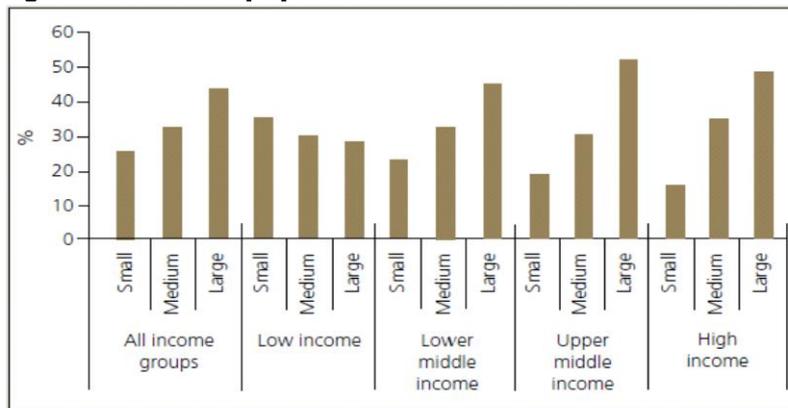
Source: For comparator countries: Bartelsman *et al.*, 2009

For Kosovo, TA

Along the same lines, more recent research studies suggest that small and medium-sized firms account for around 45 percent of formal employment in the world economy, whereas this percentage in developing economies accounts for about half or even more of the total employment (Ayygari *et al.*, 2001).³⁴ The variation in job contribution in terms of the size of firms becomes clearer when analysed in the context of national income levels. Thus, as Figure 3.6 below shows, in low income countries, small firms have the highest share of employment, followed by medium and larger firms, while in high income countries large firms have the highest share of employment, followed by medium-sized firms and small firms with the lowest share (IFC, 2013).

³⁴The Financial Inclusion Experts Group (2010) puts the number at up to 48 percent.

Figure 3.6. Share of employment based on national income levels



Source: Enterprise surveys (IFC, 2013)

3.5. The flow of entry and exit of firms in Kosovo

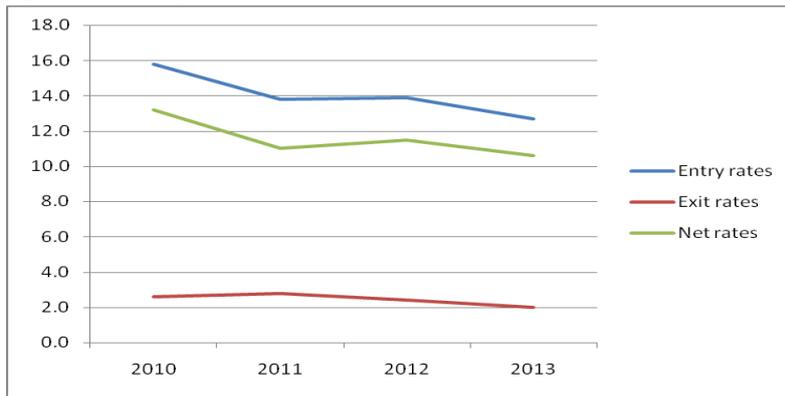
In the following section the magnitude and characteristics of firm creation and destruction is analysed. The first part discusses in more detail the findings on the flow of firms in Kosovo during 2010 to 2013, while in the second part of this section findings from the Kosovo's economy are compared with those of comparator countries presented in the paper of Bartelsman *et al.*, (2009).³⁵ A short overview on the economic conditions in Kosovo during the period given above, from which the dataset was extracted, is set out below.

The analysis of flow of firms is performed based on entry and exit rates of two firm populations: those that employ more than one employee and those that employ more than 20 employees. The methodology employed during analysis is similar to the one used by the authors mentioned above, Bartelsman *at al.* (2009). The inquiry into the validity of the turnover data was performed by considering how the entering and exiting firms compared with the average existing firms during the research period. In other words, the computation is done by comparing the relative size of entrant and exiting firms with incumbents and also by presenting the entry rates by size classes.

As Figure 3.7 below shows, firm birth rates resemble the firm exit rates, namely they exhibit a downfall trend during the last four years. A characteristic of the findings is that exit rates are significantly lower than birth rates. However, as it will be seen later in this section, this pattern resembles patterns found in some comparator developing countries.

³⁵The reason why the analysis is confined only to four years is related to the dataset obtained from Tax Administration. This administration has provided with the data on active firms only for this period of time. Figures on active firms are a necessary element to analyse the rates in relation to entry and exit of firms.

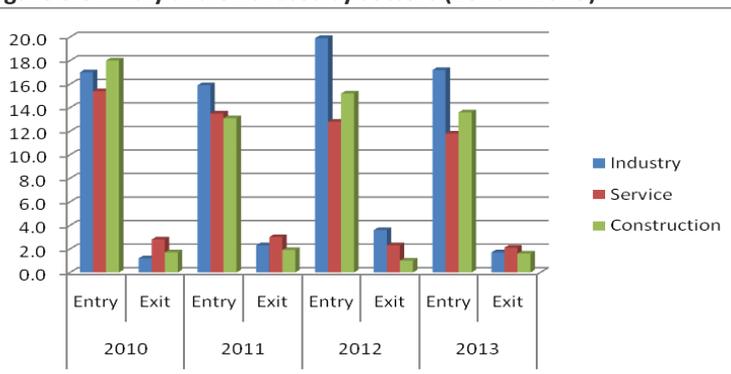
Figure 3.7. Entry and exit rates in Kosovo (2010 – 2013)



Source of data KBRA & TA

With regard to economic sectors, the results show that the industrial sector has had the highest entry rates relative to the two other sectors. The average entry rate during the last four consecutive years was 17.5 percent, with the highest rate reported in 2012 at 19.9 percent. In this year the industrial sector reported the highest exit rate, which was around 4 percent (the average 2.2 percent). Two other sectors have had lower rate averages. More specifically, in the service sector the entry rate was 13.4 percent (exit rate was around 3 percent), and the construction sector with an entry rate at 14.9 percent and with the lowest exit rate (lower than 2 percent).

Figure 3.8. Entry and exit rates by sectors (2010 – 2013)



Source of data KBRA & TA

In terms of the size of the firm, the results indicate that there is a clear correlation between rates of entry and exit of firms in relation to size. A closer look shows that in every consecutive year, micro firms, those that employee less than 5 employees, provided an absolute majority of firms that entered into market during this period of time (around 97 percent). Similarly, micro-size firms have been found to be the majority in terms of exit firms, which demonstrates the high level of correlation between entry and exit rates.

Table 3.5 Proportion of enterprise births accounted for by each size-class, 2010-2013 (%)

Years	2010		2011		2012		2013	
	Entry	Exit	Entry	Exit	Entry	Exit	Entry	Exit
1-4 empl.	97.0	97.3	97.3	96	96.7	97.7	96.2	97.4
5-9 empl.	2.2	2.0	2.0	3.0	2.3	1.9	2.5	2.1
10-19 empl.	0.4	0.4	0.4	0.7	0.6	0.2	0.5	0.5
20 + empl.	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.1

Source of data KBRA & TA

By being focused on the entire population of firms with at least one employee, the results indicate that slightly higher than 8 percent of employment is, on average, involved in firm creation and destruction. Findings indicate that from the perspective of firm churning, the highest contributor to the employment level is the industry sector, in which the annual average growth rate in terms of employment level is 12.8; followed by the construction sector, which accounted for 9.6 percent on average. The results show that there is a significant contrast between these two sectors and the service sector. The growth rate of the employment level in the sector of services is 2.1 percent on average.

Table 3.6 Gross employment contribution by sectors (%)

Years	2010	2011	2012	2013	Average
Industry	13.3	11.9	13.5	12.6	12.8
Service	1.6	1.2	2.8	2.7	2.1
Construction	10.1	8.1	10.6	9.5	9.6
Average	8.3	7.1	9.0	8.3	8.2

Source of data KBRA & TA

The following paragraphs compare the flow of entry and exit of firms in the economy of Kosovo and comparator countries. As previously stated, the analysis is conducted based on entry and exit rates of two firm populations: those that employ more than one employee, and those that employ more than twenty employees, first for the manufacturing sector, and later on for the total business sector.

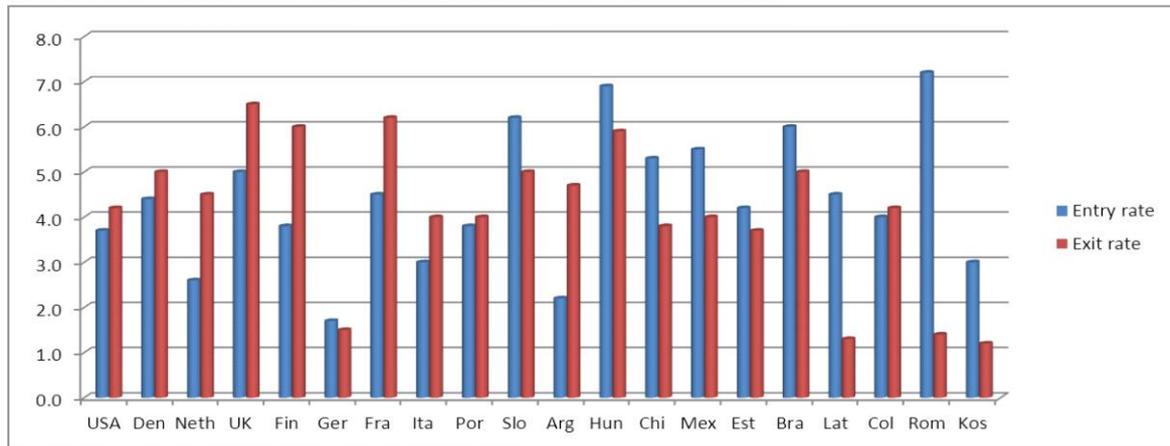
3.5.1. Comparing the flow of firms in Kosovo with comparator countries

This section provides findings in relation to the magnitude and the characteristics of firm creation and destruction in Kosovo. Identified patterns are analysed and interpreted through the perspective of other comparator countries. The patterns of firm dynamics in Kosovo are compared with those of a set of countries extracted from the Bartelsman et al. (2009) study. The subjects of the analysis are two classes of firms: manufacturing firms with either at least one employee or with more than twenty employees; and all firms in the economy with either at least one employee or with more than twenty employees.

The findings indicate that entry rate of larger manufacturing firms (with more than twenty employees) is significantly lower in Kosovo than in all other countries, including the transition countries such as Romania, Latvia, or Hungary. This pattern for Kosovo is broadly in line with expectations, since one of the stylised facts suggests that entry of smaller firms is more characteristic for small countries, which in general tend to have a size distribution skewed towards smaller firms (Bartelsman *et al.*, 2004). This is an indication that entering at a large scale is more difficult than at a smaller scale.

With regard to exit rates, findings suggest that Kosovo resemble other transition countries such as Latvia and Romania. Further, the results suggest that the firm churning (entry and exit rates) in developed countries is far more dynamic in terms of entry and exit of firms from the market than in developing countries such as Latvia or Romania.

Figure 3.9 Entry and exit rate of manufacturing firms with 20 or more employees



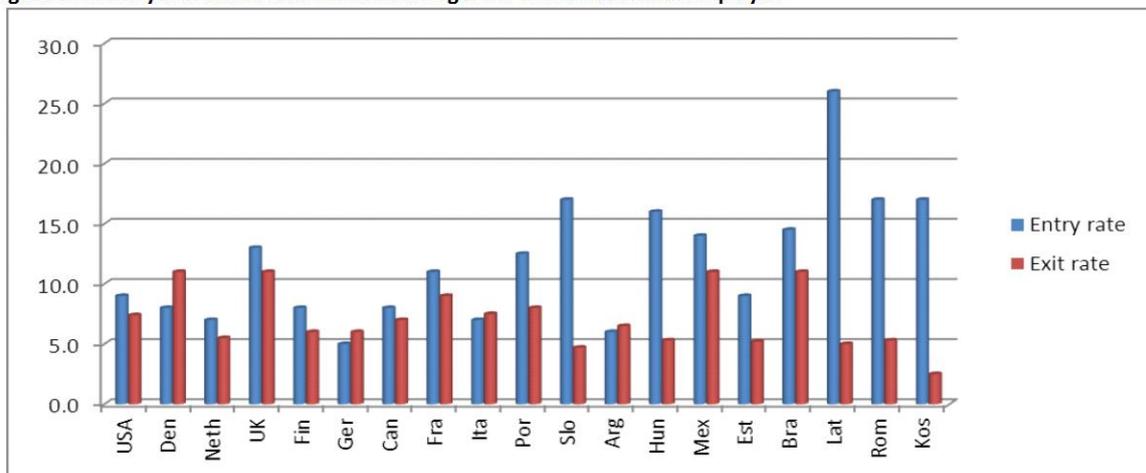
Source: For comparator countries: Bartelsman *et al.* (2009)

Source of data for Kosovo: TA

In relation to manufacturing firms with at least one employee, the results below (Figure 3.10) indicate that in developed countries the rate of new firms entries is significantly lower than in other less developed countries. Countries with lower incomes enjoy significantly higher entry rates, and vice-versa.

More specifically, the outcomes may indicate that entry of new firms is more driven by a search process rather than augmenting the number of competitors (Audretsch, 1995). Similar to the previous findings, the firm exit rates in Kosovo is again significantly lower than comparator countries.

Figure 3.10 Entry and exit rate of manufacturing firms with at least one employee

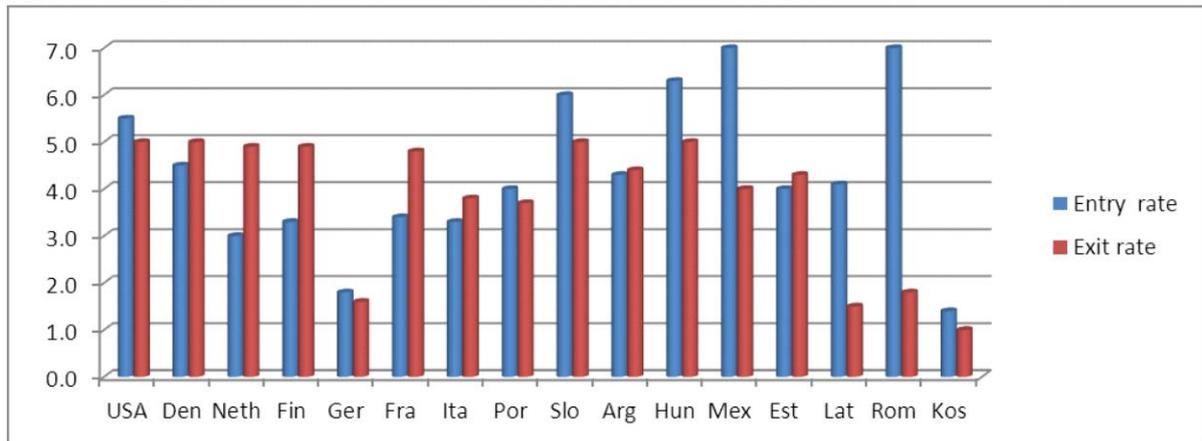


Source: For comparator countries: Bartelsman *et al.* (2009)

Source of data for Kosovo: TA

With respect to entry rates for firms with 20 and more employees in total economy, the results related to Kosovo again show a weak firm generation capacity. This is perhaps an indicator that the demand for larger firms in the service sector is relatively weak compared to comparator countries, specifically to Romania and Latvia. Another reason could be related to the structure of Kosovo's economy. Regarding the rate of firm exit, findings indicate that Kosovo's economy has the lowest rate in the sample, though it is more comparable to transition countries such as Latvia and Romania.

Figure 3.11 Entry and exit rate of firms in total economy with 20 and more employee

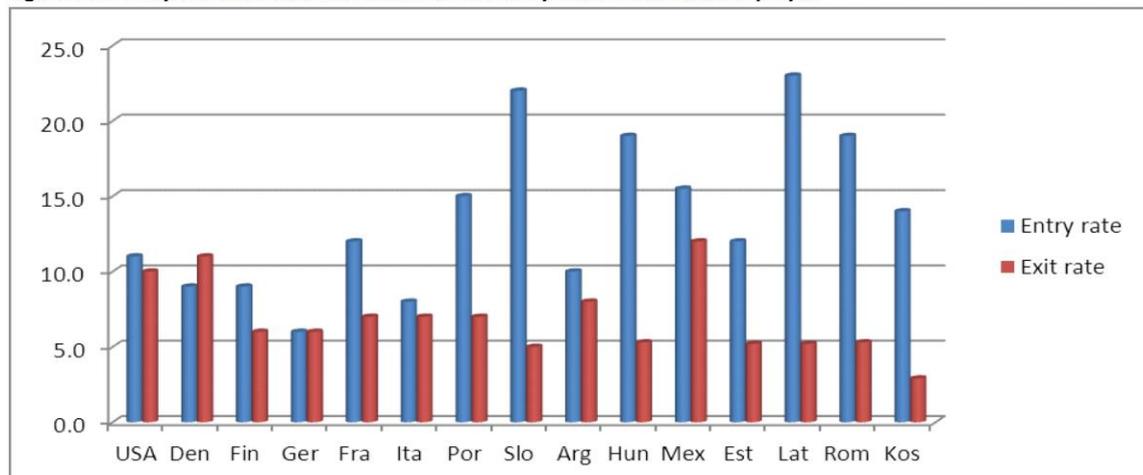


Source: For comparator countries: Bartelsman *et al.* (2009)

Source of data for Kosovo: TA

Results with respect to the entry rates of firms with at least one employee are broadly in line with expectations, namely more developed countries have lower entry rates than less developed countries (including Kosovo). The opposite results were revealed in relation to exit rates. The findings indicate that in transition countries the rate of exit of firms is significantly lower than those in developed countries.

Figure 3.12 Entry and exit rate of firms in total economy with at least one employee



Source: For comparator countries: Bartelsman *et al.* (2009)

Source of data for Kosovo: TA

To sum up, outcomes for Kosovo suggest that firm churning resembles more other transition countries such as Romania and Latvia. Still, there are at least two striking elements that differentiate firm dynamics in Kosovo from comparator countries.

Firstly, the economy of Kosovo is predominantly made up of small firms. The evidence indicates that population of active firms in the country consists of micro, small, and medium-sized firms. In this respect it does not change much from other comparator countries. However, a striking difference is found in the share of employment. The share in employment of micro and medium-sized firms in total employment, specifically in total economy (including service sectors) but less so in the manufacturing sector is significantly higher than in comparator countries.

Also, findings show that the entry of larger firms, for both manufacturing and total business, is significantly lower than in comparator countries. As stated above, this pattern reflects one of the stylised facts provided by Geroski (1995) who argues that small scale entry is more common and relatively easier than large scale entry. This is particularly more common for small countries. According to the literature, one of the reasons why entrepreneurs prefer entering with a smaller size is related to regulations, since small firms may not be subject to the same regulations as large firms. Smaller firms may be exempted from certain laws or regulations, or because they can more easily avoid them in countries with weak enforcement (Bartelsman *et al.*, 2009). In addition, the entry of small firms is more likely to be influenced by the overall dimension of the internal market, or business environment in which firms operate. Unfavourable business environment factors (poor infrastructure, limited human capital, high levels of corruption, crime, customs rate, high taxes, or high cost of finance) in developing countries may discourage the larger entry (World Bank, 2008). Rajan and Zingales (2003) suggest that the absence of regulations, and more importantly the inadequate enforcement of regulations to protect investors, could be a very effective barrier to new firm creation. Inadequate development of financial institutions is another factor that can hinder the entry of large firms. Indeed, the literature suggests that entry of new firms in general and large firms in particular should be lower in countries with less developed financial institutions (Rajan and Zingales, 1998). Access to adequate human capital may be another factor for the low rate of large firms. Here the issue may not be only the supply of labour force, but more importantly the supply of a labour force with adequate industry skills. It is well-known that there are two ways to create the needed human capital. One way is through training of labour force in-house, and the alternative is to give the labour force better general-education so they can be quickly trained later on for specific jobs. While the first one can be largely characteristic of existing firms, new entrants can be better off if there is a well-educated labour force that can be employed directly. This could imply that entry of larger firms should be higher in developed countries with a better-educated work force (Klapper *et al.*, 2004).

Secondly, the rate of exit of firms in Kosovo's economy is significantly lower than comparator countries, including transition countries included in the sample. This indicates that firm survival in Kosovo is higher, not because they grow, but primarily because market selection in Kosovo is less harsh than in comparator countries. Another possible explanation is that firms in socio-economic contexts like that in Kosovo probably are not entirely economic categories. In the contexts of poor countries, characterised by a high level of unemployment, creating and obtaining a business firm probably represents the only means of survival and revenue generation. Therefore, rather than being merely an economic phenomenon, firms in less-developed and transition economies such as Kosovo represent also social phenomena. In fact, there is a strand of literature which argues that having no other alternatives can be specifically characteristic of poor countries; many people are *pushed* into entrepreneurship. People have no jobs opportunities, and opening and maintaining a business is the only way to survive (Reynolds *et al.*, 2005). They are pushed, or the necessity drives them to open and maintain a business. The necessity and the push factors may also be the main reason why firms continue to remain in the market, regardless of the level of profit. As a consequence, such firms may generally make only a small contribution on the productivity growth of firms in particular, and to economic growth in general. These types of firms are also known as survivalist firms (deSoto, 1989). Many of these firms operate in the informal sector. In the case of Kosovo, evidence shows that around 35 percent of total business firms are not taxed (Riinvest Institute, 2013). Survivalist firms operate in an environment with a poor institutional setting, and as a consequence of this, they continue to exist serving as the only source of revenue generation for

their families (Berner, Gomez, and Knorrige, 2008). Finally, though their impact on economic growth may be symbolic, these surviving firms are seen as contributing to poverty reduction and employment creation.

The findings presented in the above section shed light only on the entry and the exit rates. The survival analysis performed below explains the selection process which takes place in the market.

3.6. The survival performance of firms

The dataset used throughout the analysis allows the tracking of newly born firms over time and to find out how many of them survived or exited from market from one year to another. The life span of firms analysed is up to 4 years. The dataset contains the list of cohort firms that were born within a specific period of time, 2008 - 2013. The first part of this section is focused on survival and hazard rates of firms operating in Kosovo's economy. Findings from this section are compared with comparator countries used in the previous sections. By using the Kaplan Mayer model the second part compares firm survival functions. The final part provides the regression results by using Cox regression models.

3.6.1. Methodology

The methodology used for analysis enables the tracking of newly born firms over time, and in this way to trace how many of them survive from one year to another. The dataset utilised in this study allows for analysis of the survival rates of firms born during the four year period. The dataset is made-up of a cohort of firms that were born during four consecutive years, that is, from 2010 up to 2013.

The following list represents some of the basic features used during the analysis:

- The units of analysis are newly born firms that operate in a low income country, i.e. this study uses a sample of firms born and exited in the economy of Kosovo.
- As previously mentioned, the objective of this study is to track activity of a cohort of entrant firms until an event happens, and that event in the survival analysis literature usually is called "failure". So, when the event happens, it implies that a firm has failed and exited from the market and it is removed from the dataset or from the sample. Therefore, during the analysis the concepts of failure and event are sometimes used interchangeably.
- Firms are followed until the event happens, or until the firm is lost from the dataset and this is called right censored observation.
- "Survival rate" is another crucial concept widely used in this research study. This concept explains how long firms stay in the dataset. It plots survival function over time and it can be seen that survival is a hundred per cent in the beginning of the analysis; that is when the dataset contains the total number of firms (Cleves *et al.*, 2010). Then, as an event or failure happens to some of them, the survival rate diminishes over time. In other words, the survival rate function unveils what firm survival looks like, or changes over time.
- Another very important concept used throughout the study is "hazard rate/function". It represents the conditional risk probability that firms will fail (Cleves *et al.*, 2010). In other words this feature of survival analysis explains what is the chance that the event (failure) will happen given that firms still exist in a certain period of time? The risk of failure differs over time (that is, as the firms age), because in the beginning the chance to fail is higher for new

firms, but as the time passes, the risk to failure changes and firms may become more resistant to failure (Cleves *et al.*, 2010).

In this research the dependent variable is always the time duration, that is, time from the firm's birth to an event (failure), or the time for a firm to being censored. The time duration variable is made up of two combined elements: time and event/censoring. So, the first element is time (that is age), or the length of time during which firms are in the dataset. Basically, this element accounts for the firm's age. On the other hand, the other element of the time represents failure, and it is coded by 1 if the event happened, in this case the firm has failed, or 0 if the event has not happened, meaning that firm is still active at the end of the sample period. In relation to censored observations the coding is reversed. Firms are coded with 1 in case a firm is still active, and 0 if a firm is not active and it is not known the exact reason what happened to that firm, whether it has gone bankrupt, or there are other reasons that the firm is not active.

3.6.2. The statistical model

The analysis of survival data can take one of three forms: non-parametric, semi-parametric, and parametric. Any of these forms can be used depending on what it is assumed about the form of the survival function and about how the survival experience is affected by covariates (Cleves *et al.*, 2010).

Due to the censoring process this study has employed a statistical model which is capable of accommodating incomplete durations as it is the case with the dataset used in this study. Therefore, the model used is a non-parametric hazard model, as it provides a variety of analytical tools which enable us to characterize the exit process more rigorously than is possible with conventional approaches, such as ordinary least squares or other parametric models. More specifically this model enables the study of how the exit rates evolve overtime and the way in which such rates are affected by both firm and other characteristics such as sectorial characteristics. As mentioned previously, the dataset used on the survival of firms comes from annual records and all that is known is that a firm is active at the recorded dates. Therefore, the duration time is grouped into four yearly intervals. For firms that exited during 2008 – 2013 all that is known is that the duration is expressed in increments of 1 year length. Firms that are not identified as having exited until the end of 2013, all that is known is that their duration exceeds the lower limit of the last observed duration (Lancaster, 1990).

Since the first analyses conducted are related to the survival function as well as the hazard function, the formulas connected to these two relevant survival concepts are given below. More specifically, the dependent variable, time duration, is assumed to have continuous probability distribution $f(x)$, meaning that subjects can take any value over the time period (Cleves *et al.*, 2010). The probability of failure of subjects over the time can be plotted in the following formula: the probability that the duration will be less than (t), or

$$F(t) - \text{Prob}(T \leq t) = \int_0^t f(s) ds$$

T denotes the time taken by a firm from the moment of entry into the market to exit the market.

$F(t)$ represents the probability of failure by time t .

The equation can be interpreted as the following: the probability that duration time would be less than time t , denoted as $F(t)$, and that would be the probability that this duration would be less than or equal time t ($Prob(T \leq t)$), and that would be equal to integral $f(s)ds$.

The survival function would be the opposite of probability to fail, and it tells us a probability that the duration will be at least (t) :

$$S(t) = 1 - F(t) = Prob(T \geq t)$$

$S(t)$ represents the probability of survival beyond (t) .

While the first equation tells what the probability of failure is, whereas the second equation explains what the probability of survival is.

Based on these two equations, the hazard rate equation would be:

$$h(t) = \frac{f(t)}{s(t)}$$

The hazard rate measures the rate at which the risk is being accumulated. More specifically, the hazard function $h(t)$ is the instantaneous rate of failure conditional upon the subject having survived to the beginning of that instant (Cleves *et al.*, 2010).

To estimate the proportion of the population of firms which would survive under a given length of time and under the same circumstances, the Kaplan-Meier method was employed. This method enables comparison of survival functions for different groups (sectors, size, ownership, and regions), and it does so without assuming a particular distribution of the survival times by means of a log-rank test.³⁶ It uses weights equal to one at all times points, and places more emphasis on larger values of time (Hosmer and Lemeshow, 1999). The Kaplan-Meier is the most commonly non-parametric estimator used to estimate the survival function (Landau and Everitt, 2004).

The Kaplan-Meier estimator of the survivorship function (or survival probability) $S(t) = Pr(T \geq t)$ is:

$$\bar{S}(t) = \prod_{j|t_j \leq t} \frac{n_j - d_j}{n_j}$$

Where n_j is the number of firms "at risk" right before the j -th exit time (every exit firms or censored at or after that time), while the d_j is the number of failures. The product is overall observed failure ages less than or equal to t .

The Cox Proportional Hazard (PH) model was applied to measure the relationship between dependent variable, that is, hazard function or the risk of firms to exit from the market, and four independent/explanatory variables such as economic sectors, size of the firm, the ownership structure of the firms, and region in which firms operate.

³⁶There are two other tests used widely in the survival analysis, the *generalized Wilcoxon test* (referred to in SPSS as the *Breslow test*, Breslow, 1970) and the *Tarone-Ware test* (Tarone and Ware, 1977). All three tests assess the null hypothesis that the group wise survival functions do not differ by comparing the observed number of events at each event time with the number expected if the survival experience of the groups were the same (Landau and Everitt, 2004).

The formula of the Cox PH model is:

$$h(t, \mathbf{X}) = h_0(t) \exp\left(\sum_{i=1}^p \beta_i X_i\right)$$

where $\mathbf{X} = (X_1, X_2, \dots, X_p)$ are the explanatory/predictor variables.

- $J_0(t)$ is called the baseline hazard, and
- Exponential of the sum of β_i and X_i

This can be read in the following way: the hazard (risk to failure) that individual firms face is some function of the hazard (risk to failure) that every firm faces (the baseline hazard h_0), modified by a set of explanatory variables X_i . The relationship between explanatory variables and survival depends on some vector of parameters β (Landau and Everitt, 2004).

3.6.3. The data

As previously mentioned, the dataset used for this study was obtained from KBRA and TA. This dataset does not include the self-employed workers. It provides a comprehensive overview of all firms entered and exited from market during a specific period of time. Each firm has its own specific number which allows individual firms to be followed over time. More specifically, the dataset used for analysis includes firms that entered the market during the 2008 to 2012 period. In this study the computation of entry and survival has been carried out manually, since this can be done relatively easily, because firms possess unique index number. This allowed for tracking of new firms starting-up during the period mentioned above.

A firm born in year t is considered to have survived in year $t + 1$ if it is active; namely has not officially ceased its business activity. On the other hand, for a firm to be treated as exit, it has to be absent from the file in $t + 1$ and $t + 2$. This is the reason why in this study survival rate analysis are tracked only for firms born up to 2012, although the dataset covers the cohort of firms in 2013. Therefore the last year for which the exits are identified is 2012. The time of exit is found by another dataset (dataset on exit of firms provided by KBRA) which contains the number of firms exited from the market. Exit in this study is defined as firm closure.

As is mentioned above, this dataset is relatively comprehensive, but still has some limitations. For instance the dataset does not offer the possibility to distinguish between different modes of exit, i.e. unable to distinguish between voluntary exit and bankruptcy, or identify those cases in which a firm changes ownership but continues doing business with its original legal identity. However, based on KBRA sources, the changes in ownership are relatively rare and do not constitute any serious limitation.

Another shortcoming of this dataset is the inability to identify cases of mergers. The final shortcoming of the dataset is that the only reliable measure of the size of firms available is the firms' number of employees – an indicator of size used in this study. Other independent variables used in this study are the type of ownership, region in which firms operate, and sectors.

3.6.4. The empirical results

Table 3.7 provides the main output in relation to survival and hazard rates. The column (on the left hand) called “intervals start times” presents the beginning of each step. For instance, the first row shows the results for the first year, the next row shows the results for the second year, and so forth. The second column presents the number of firms exposed to risk, that is, the number of firms counted as starting that interval time for purposes of the survival analysis.³⁷ The survival rates are given in the third column, called as “Cumulative Proportion Surviving at End”. This column presents the percentage of firms (out of 100 percent at the beginning) which survived up to the end of the time interval. Thus, as is shown in the third row (the one marked 2), 85 percent of firms which originally started have made it as far as year 2 (the *end* of that time interval), while in the fourth row (the one marked with 4), 83.7 percent of firms that initially entered in market managed to survive. The final column on the right side provides “Hazard Rate” which explains the percentage chance of having a terminal event, for the group of firms which were still alive at the start of that particular time interval. Again, in row 3, there is a 3 percent chance of having a terminal event, for firms already made it as far as year 2. If we look for the largest hazard rate, we can see that the time of greatest risk is in the first year where the hazard rate is between 6 to 8 percent. In other words, the higher percentage chance for having terminal rate (exiting from the market) is associated with younger firms, namely those that have two years of operation. The risk of failure varies over time. As firms age, or as the time passes, they become more resistant to failure (Ahn, 2001; Bartelsman *et al.*, 2004, 2009).

Table 3.7 Survival and hazard rates

Interval Start Time	Number Exposed to Risk	Cumulative Proportion Surviving at End of Interval	Hazard Rate
1	40,069	.92	.08
2	36,854	.87	.06
3	31,841	.85	.03
4	24,963	.837	.02

Source of data: KABRA

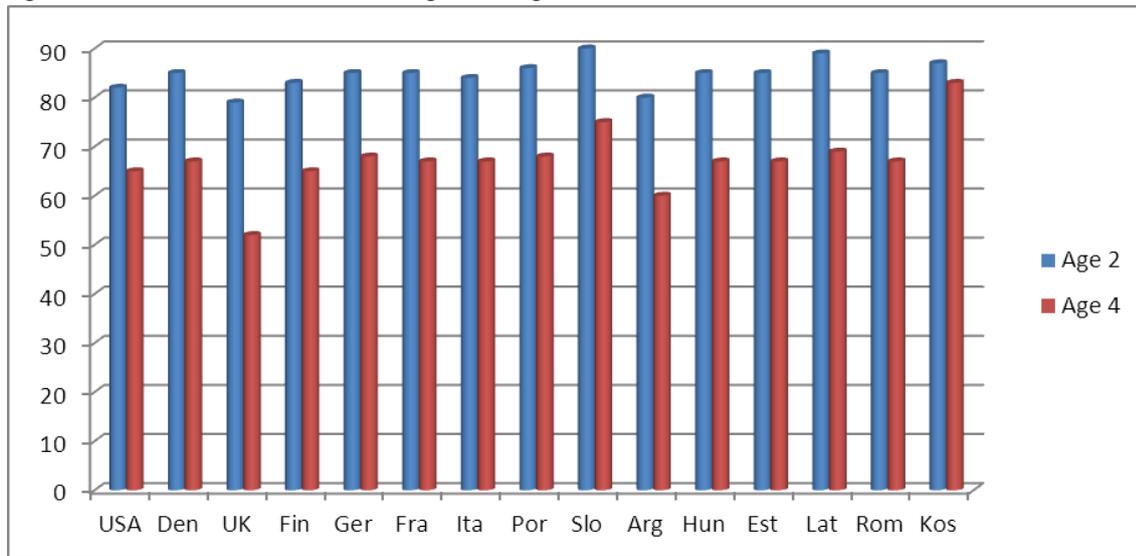
The following Figures 3.13 and 3.14 below compare findings of survival rates in Kosovo with other comparator countries for manufacturing and the total economy. Survival rates for comparator countries are based on the Bartelsman *et al.* (2009) study and refer to years 1995 – 2003, while data on Kosovo cover the period 2010 – 2013.³⁸ More specifically, the first figure presents non-parametric (graphic) estimates of survivor rates for firms that operate in the manufacturing sector. These survivor rates specify the proportion of firms from a cohort of entrants that still exist after the second and fourth years. Findings indicate that firms that operate in the Kosovo’s economy for the first two years do not have any difference to comparator economies. The evidence suggests that the

³⁷ It is worth mentioning that this column does not show the number of firms that remain or exit from the sample. The calculation carried out by SPSS software provides only the number of firms in each consecutive year that are exposed to risk, and not number of firms remained in the sample or exited from the sample.

³⁸ As mentioned in the section 3.6.3 above, this study has used two datasets. The dataset obtained from KBRA covered the period between 2008 to 2013, while the dataset obtained from TA covered the period between 2010 to 2013. Aiming to establish a more consistent sample of firms, with more comprehensive information available from two sources, the survival patterns generated in this study cover the period 2010 – 2013. Consequently, the survival rates have been calculated only for year 2 and year 4.

probability of survival (up to 4 years) of firms in manufacturing and in total economy is higher in Kosovo than in other economies. This may be due to the higher market pressures, as well as different market orientation and the environment of firms in which they operate.

Figure 3.13 Firm survival in manufacturing sector: age 2 and 4

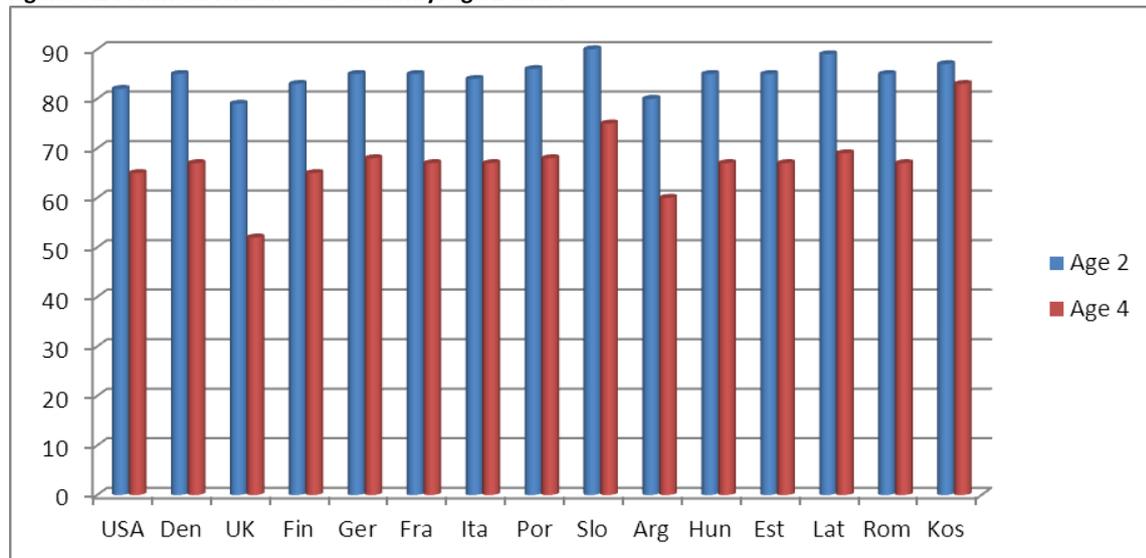


Source: For comparator countries: Bartelsman *et al.* (2009)

Source of data for Kosovo TA

Findings for 2 year survival in manufacturing and in the total economy suggest that the survival rates in Kosovo are more comparable to other economies. A closer look at findings shows that firms operating in Kosovo resemble more the transition countries. After two years of operation, about 13 percent of firms exit from the market, compared to 10 percent in Latvia and 12 percent in Romania, while the survival range in developed countries varies from 85 per cent in Italy to 87 per cent in Netherland. Conditional on overcoming the initial two years, the prospect of firm survival in Kosovo improves in the subsequent period. For firms that remain in the market after the first two years, the survival function increases, namely 83 percent of firms in Kosovo survive after year four, relative to 75 percent that manage to survive after four years in Latvia and Romania respectively. The survival rates in developed countries are significantly lower. It ranges from around 65 in France to around 68 in the Netherlands. This suggests that pressure to exit after 4 years is significantly higher in developed countries. This may be due to different market orientation of firms as well as due to the environment in which firms operate.

Figure 3.14 Firm survival in total economy: age 2 and 4



Source: For comparator countries: Bartelsman *et al.* (2009)

Source of data for Kosovo TA

By using statistical techniques including Kaplan-Meier and Cox-Proportion, the following section throws light on the survival patterns in Kosovo. These models enable to examine the relationships between survival patterns and various explanatory factors.

3.6.5. Estimation of the survival function using Kaplan–Meier method

From a set of observed survival times, including censored times, the Kaplan-Meier method is used to estimate the proportion of firms which would survive under a given length of time and under the same circumstances. By means of a log-rank test this statistical technique enables comparison of survival functions for different groups of firms, which can then be compared formally without assuming a particular distribution for the survival times. As stated above, the log-rank test is one of the tests, which uses weights equal to one at all times points, and places more emphasis on larger values of time (Hosmer and Lemeshow, 1999). The results suggest that the ranking reflects differences between the survivor functions for firms operating in construction, manufacturing, and service sectors. In other words the analysis suggests that firms that operate in construction sectors have higher prospects of survival than those operating in the service and industrial sectors. This can be confirmed by chi square and log rank significance values - $\chi^2(1) = 29.9$, and $p < 0.000$ respectively. More specifically, the results show that 87.6 percent of firms that operated in the construction sector survived after five years, as opposed to 83 per cent in service, and 84 per cent in industrial sectors respectively – see Table 3.8.

With regard to the impact of the size of firm on the survival function, the empirical evidence suggests that the initial size of the firms matters in terms of survival. The size of firms is measured by the number of employees when they start their business activities. Findings indicate that the bigger the size of the firm, the better are survival prospects ($\chi^2(1) = 59.7$, $p < 0.000$). A closer look at results shows that after five years of operation, only 83.4 percent of firms with 1 – 4 employees managed to survive as opposed to 91.4 per cent of firms with 10 – 19 employees, and also with firms that employ more than 20 employees.

There is also a strong statistical evidence to infer that ownership type and the region in which firms operate matter on the life duration probabilities. This can be demonstrated by the chi-square and p values associated to these two factors, ($X^2(1) = 461.7, p < 0.000$) for ownership type and ($X^2(1) = 329.6, p < 0.000$) for regions. A closer look indicates that firms with a limited liability structure and firms with foreign ownership have higher survival functions, 6.7 and 6.1 compared to sole proprietorship which was scored with 5.7.

Due to their propensity to employ better human capital and therefore better managerial skills, and specifically with their better access on external finance (Storey, 1994), it looks like limited liability firms have higher survival rates. Similarly, firms with foreign ownership tend to be larger than domestic firms; employ a larger proportion of skilled workers; adopt more formal legal structures; operate with a larger number of plants; have more significant economies of scale; experience less entry and have a greater share of employment in foreign firms than industries entered by domestic firms (Mata and Portugal, 2002).

3.8. Kaplan-Meier output for survival function using four factors (n=40,069)

Factors	Total N	N of Events*1	Censored*		Mean				Chi-Square	Log Rank sign. (p values)
			N	Percent	Estimate*	Std. Error	95% Confidence Interval			
							Lower Bound	Upper Bound		
Industry	4,556	717	3,839	84.26%	6.048	.033	5.983	6.113		
Services	33,411	5,543	27,868	83.41%	5.962	.013	5.936	5.987	29.9	.000
Construction	2,102	261	1,841	87.58%	6.234	.045	6.146	6.321		
Overall	40,069	6,521	33,548	83.7%	5.986	.012	5.963	6.008		
1-4 empl	37,882	6,292	31,590	83.4%	5.966	.012	5.942	5.990		
5-9 empl	1,468	176	1,292	88.0%	6.234	.054	6.127	6.341	59.7	.000
10-19 empl	395	34	361	91.4%	6.446	.091	6.268	6.625		
20 + empl	324	19	305	94.1%	6.631	.083	6.468	6.793		
Overall	40,069	6,521	33,548	83.7%	5.986	.012	5.963	6.008		
Prishtina	15,237	1,968	13,269	87.1%	6.198	.017	6.164	6.231		
Prizren	6,628	1,359	5,269	79.5%	5.719	.031	5.658	5.781		
Gjilan	8,581	1,326	7,255	84.5%	6.036	.025	5.987	6.084	329.1	.000
Peja	5,560	1,021	4,539	81.6%	5.855	.033	5.790	5.919		
Mitrovica	4,058	845	3,213	79.2%	5.695	.040	5.616	5.774		
Overall	40,066	6,521	33,545	83.7%	5.986	.012	5.963	6.008		
Sole proprietor.	33,576	5,965	27,611	82.2%	5.892	.013	5.866	5.918		
Ltd	4,536	228	4,308	95.0%	6.686	.020	6.646	6.726	461.7	.000
General partnership	1,356	245	1,111	81.9%	5.890	.065	5.763	6.018		
Foreign company	601	83	518	86.2%	6.150	.088	5.978	6.321		
Overall	40,069	6,521	33,548	83.7%	5.986	.012	5.963	6.008		

*Number of events - indicate firms that failed, exited from the market

*Censored - Firms that do not experience the event within the period of analysis of the study are considered to be censored.

Source of data: KBRA

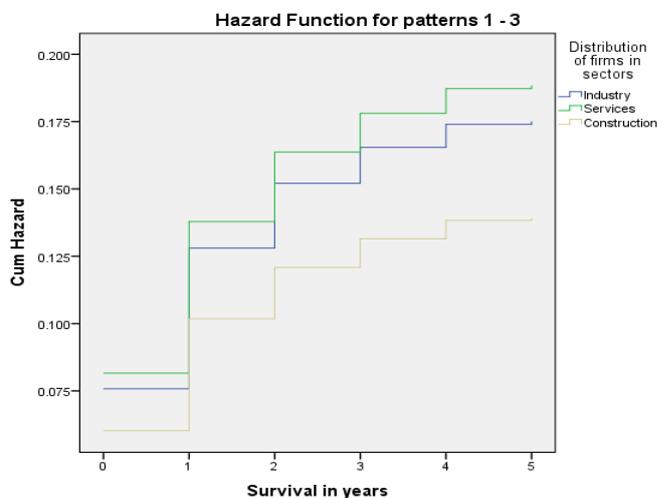
3.6.6. Regression outcomes

This section investigates whether explanatory variables (economic sectors, ownership type, region in which firms operate, and the initial size of the firm) affect the survival and hazard rates. The Cox proportional hazard rate model is used to test the hypothesis, and to explore the relationship between firm survival and several explanatory variables. As it states in the section of theoretical framework, the hypothesis related to this particular regression exercise is: *firm survival probabilities are the function of differences in size of the firm, type of legal structure, differences in economic sector, and the region in which they operate.*

As previously stated, firms were followed for up to 4 years. An approximate test of significance for each variable is obtained by dividing the regression estimate b by its standard error $SE(b)$, and also by comparing the result with the standard normal distribution. Values of this ratio are considered statistically significant only at the 5 per cent level. Before the interpretation of the results, it is worth mentioning that regression is performed by constructing four regression models for each explanatory variable, that is, separate models for economic sectors, firm size, ownership, and region. The Cox model for economic sectors is shown in Table 3.9 below. Based on the results obtained it can be said that three explanatory variables used in the model (industry, service, and construction) contribute significantly to explain variability of the hazard rate, since the score test is: $\chi^2(1) = 26.3, p < 0.000$.

The first element to look at in the Table 3.9 below is the sign of the regression coefficients, i.e. the exp (B). A score above 1 means that the hazard (risk for firms to exit) is higher, and consequently the prognosis for survival is worse, while for firms with score below 1 the prospects for survival are better. The Cox regression analysis revealed that with regard to economic sector, the fact that firms operate in a specific sector matters. More specifically, the findings show that firms operating in the sector of construction (which in this case is taken as a reference variable) enjoy a significantly lower hazard risk compared with firms operating in the industry and service sector. That is to say, the risk failure for firms that operate in the industry and service sector is 1.3 times (industry) to 1.4 times (service) higher for firms operating in the construction sector. One explanation why firms operating in construction have better survival prospects probably is related to the construction boom that Kosovo has experienced since the war ended in 1999.

Figure 3. 15 Hazard function for three economic sectors

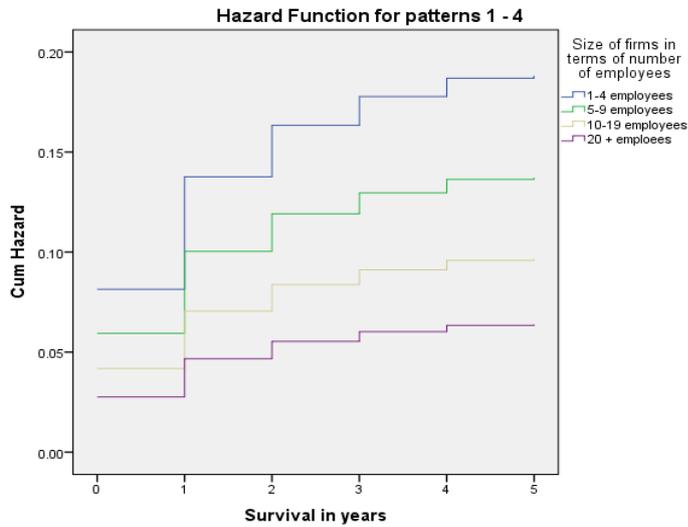


Source of data: KBRA

With regard to the firm size, findings indicate that initial size of the firm is associated with the magnitude of the hazard rate. In other words, the chance to fail diminishes with the size of the firm, that is to say that, the bigger the size of the firm, the lower the hazard ratio. In this model, the reference variable is taken as the size of firms that have the lowest hazard ratio, that is, those firms employing more than 20 employees. As Table 3.9 below shows, the highest hazard ratio is associated with firms that employ 1 – 4 employees. The chance that these firms will fail earlier is almost three times higher than those that employ more than 20 employees ($e^* = 2.949$). The failure diminishes with the size of the firm. Thus, the risk to fail for firms that employ 5 – 9 employees drops at 2.15

and 1.5 for firms that employ 10 – 19 employees respectively. These findings confirm one of the stylised facts which states that there is strong association between the size of firms and their survival. A firm’s size has huge impact on the determination of the probability of survival.

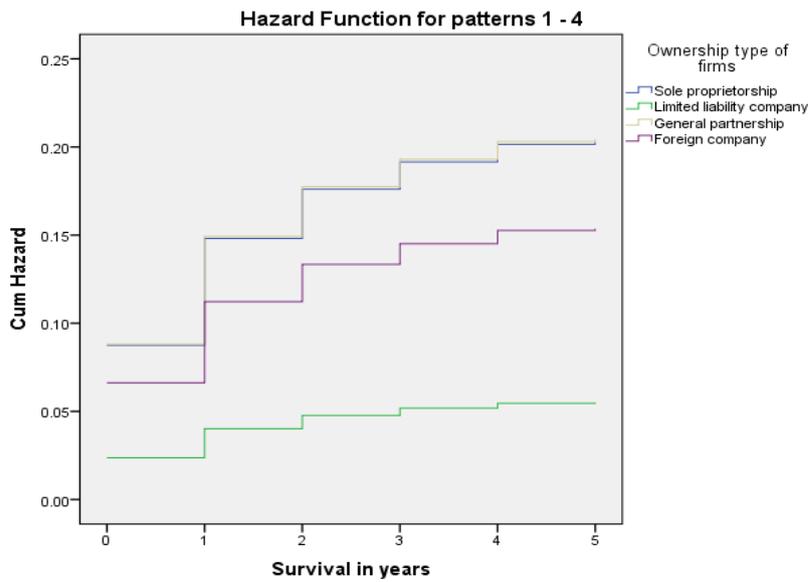
Figure 3.16 Hazard function for firm size



Source of data: KBRA

The empirical findings indicate that the explanatory variable related to the legal status of a firm can predict the firm hazard ratio. In order to run the regression model, firms with foreign ownership are considered as a reference variable. The empirical findings suggest that firms with the legal status of limited liability enjoy the greatest survival prospects. In other words, the results indicate that by being a limited liability firm, there are 0.278 chances to fail relative to foreign ownership. In contrast to that, operating as sole proprietorship firm, the risk to fail increases to 1.3 times more than firms with foreign ownership structure. The risk slightly increases by operating as a general partnership ($e^* = 1.331$). Previous studies on firm survival explain this with the evidence that limited firms, as well as foreign ownership usually employ better management practices, have better organisational capabilities and have better access on external finance, etc. (Gerick, Mata and Portugal, 2012).

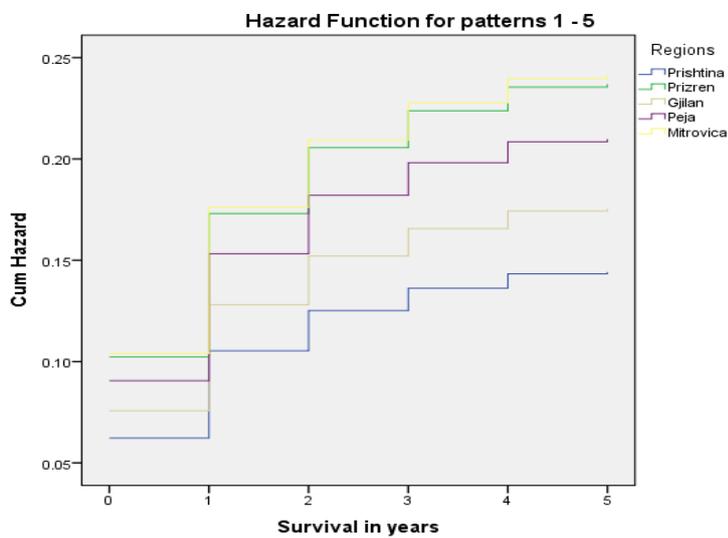
Figure 3.17 Hazard function for legal status



Source of data: KBRA

The results related to location in which firms operate show that firms that operate in the capital area are considerably less exposed to the risk of failure. For this model, the capital of the country is taken as a referral point to assess the hazard ratio for other locations. The results indicate that, for instance, the risk to fail is almost as twice higher for firms that operate in the Prizren and Mitrovica region, than those that operate in Prishtina, the capital city ($e^* = 1.64$, and $e^* = 1.67$ respectively).

Figure 3.18 Hazard function for regions



Source of data: KBRA

Table 3.9 Cox regression model fitted to the data (n=40,069)

Explanatory variables	Coefficient				e ^b Hazard ratio*	95.0% CI for hazard ratio	
	B	Stand. Err.	SE	p - value		Lower	Upper
Industry	.230	.072		.001	1.258	1.092	1.450
Services	.303	.063		.000	1.354	1.196	1.533
Construction							
1 - 4 employees	1.082	.230		.000	2.949	1.880	4.627
5 - 9 employees	.766	.241		.002	2.151	1.340	3.453
10 - 19 employees	.413	.286		.149	1.512	.862	2.651
20 + employees							
Sole proprietorship	.278	.111		.012	1.320	1.063	1.640
Ltd	-1.028	.128		.000	.358	.278	.460
General partnerships	.286	.127		.024	1.331	1.037	1.707
Foreign company							
Prishtina							
Prizren	.497	.035		.000	1.643	1.533	1.761
Gjilani	.196	.036		.000	1.216	1.134	1.304
Peja	.375	.039		.000	1.455	1.349	1.569
Mitrovica	.514	.041		.000	1.672	1.543	1.813

* Risk of death according to treatment assignment and prognostic variables

CI: confidence interval

Source of data: KABRA

To sum up, results in this section have revealed some interesting patterns related to firm survival. The first pattern has to do with survival rates in the manufacturing sector. As expected, the survival rates for two cohorts (age 2 and 4) are higher in low income countries. This is specifically true for Kosovo where survival rates of manufacturing firms for firms that survive after four years are significantly higher than all other comparator countries. A closer look shows that only 17 per cent of firms exit, while 83 per cent of them are still active. This is significantly higher than other developing countries, such as Romania with 75 percent, or in high-income countries, such as France, at around 65 per cent and the Netherlands at 68 per cent. With respect to Kosovo's survival rates for total business, results show that the higher exit rates occur after the second year. Once firms manage to survive after year two, their survival prospects increase significantly. These findings confirm the previous findings presented at the firm flow section, namely survival rates of firms after age four are significantly higher in low income countries than in other comparator countries. This suggests that factors like market orientation and the environment in which firms operate may play a significant role in the survival prospects. As previously stated, the high survival rates may be a result of different market pressures. As a result of market pressures, the survival rates in developed countries are significantly lower relative to lower income countries. With respect to Kosovo, other factors that may influence the high survival rates may include the lack of government incentives to exit from the market, and as previously provided; firms in poor countries like Kosovo are not entirely an economic phenomena. Under the high unemployment conditions, business firms in poor countries are also survivalist firms, namely these firms serve as the only resource of survival for many poor families.

The regression results suggest that firms operating in the construction sector have longer survival prospects relative to the manufacturing and service sectors. It is likely this finding is linked with the reconstruction phase that Kosovo has been undergoing after 1999. Expected results have been obtained relating to the size of firms, namely large size firms have significantly greater survival prospects relative to small-size firms. It is likely that large firms are close to the minimum efficient

scale, have better access on external finance, have better organisational capabilities and apply better management practices. In terms of impact of ownership structure on the firm survival, findings indicate that limited liability firms and firms with foreign capital have better survival prospects. As argued by the literature, this is basically due to the fact that these types of firms are usually larger, employ a larger proportion of college graduates, adopt more formal legal structures and operate with a larger number of plants (Geroski, Mata, and Portugal, 2012). Similar to large firms, these types of firms have organisational capabilities, employ better human capital, and implement better managerial practices. Regression findings also revealed that operating in the capital area significantly increases chances for survival. Findings suggest that firms operating in regions out of the capital region are exposed to a greater risk to fail. This is because firms in capital areas are likely to be facilitated by external economies, arising from close proximity to suppliers and customers, increased information circulation, etc., or agglomeration factors. Literature suggests that agglomeration factors make firms to cluster around space and to benefit from externalities (Baldwin *et al.*, 2000).

3.7. Productivity sectorial differences

In the previous section, evidence was presented on the two components of firm dynamics: the demography of firms (incumbent firms and flow of entry and exit of firms), and the survival performance of firms operating in Kosovo. Findings were analysed through the perspective of comparator countries. As previously stated, an essential element of the analysis of firm dynamics is linked with productivity growth, namely analysis of factors that drive the productivity growth. Empirical evidence shows that incumbent firms are drivers of productivity pressured by creative destruction and the effects of new entrants are de facto secondary (World Bank, 2008). Due to the lack of data, unfortunately this study could not conduct a more detailed analysis of the interaction between entry, exit, and dynamics of productivity growth in incumbent firms. Nevertheless, the dataset obtained from tax administration enables to gain at least some insights on productivity characteristics of existing firms. Due to this scarcity, this section is confined to examination of some aspects of sectorial differences in productivity growth. More specifically, this section investigates some elements of productivity growth related to sectors and subsectors based on labour productivity, which of sectors and subsectors seem to be more dynamic, and whether the size of firms has any effect on productivity growth.

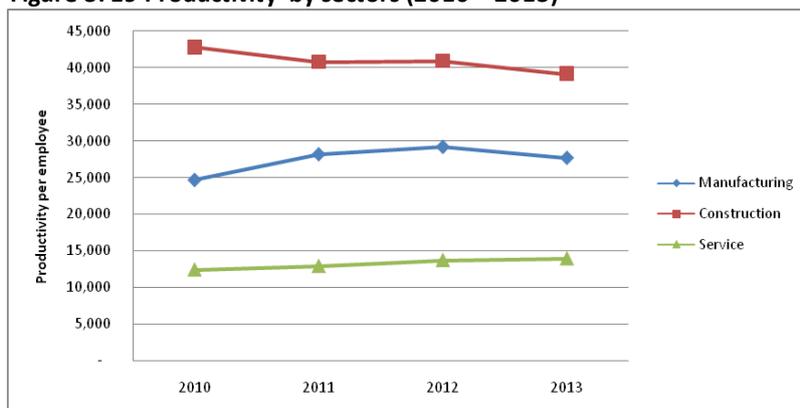
Measuring productivity growth is not an easy task. There are different ways to do that. Since it is easier to calculate and interpret, the most common measure used is labour productivity. Labour productivity explains how much output is produced, on average, by each unit of labour employed in the business. Therefore, in this section the only measure used is the labour productivity growth which gauges the increase in the value (sales/turnover) or output generated per worker.³⁹ The investigation approach is straightforward. The dataset available enables computation of the differences in productivity by taking into account total turnover (sales) and the number of employees. First, the productivity per employee was found by analysing the aggregate growth in

³⁹A variety of measures of productivity have been used in the literature including labour productivity, measures of total factor productivity that vary from estimated residuals from production functions to divisia index approaches to multilateral index number approaches" (Bartelsman *et al.*, 2009: page 46).

three sectors, and afterwards in subsectors. This reflects the contribution of each sector to the productivity growth within continuing firms. Second, the productivity per employee was computed by analysing the aggregate growth into three groups of firms, taking into account the size of firms – micro, medium, and large firms. In all this process the baseline analysis is based on a four year period for which data was available. A simple linear regression was run to investigate whether size of firms has any impact on the productivity growth in different sectors and subsectors.

The results show that over the last four years the productivity in three major economic sectors was increasingly flat, with a slight downward inclination (see the Figure 3.19 below). Comparing the productivity between sectors, findings indicate that firms operating in the construction sector are the most productive, followed by the manufacturing sector. These findings correspond with the section where the analysis of entry and exit rates was conducted. The findings suggested that the higher firm entries were accounted for in the construction and manufacturing sectors. Also in terms of survival rates, the findings showed that firms operating in construction in general have better survival prospects relative to other sectors.⁴⁰ Similarly, the findings on productivity show that firms in the construction sector are more productive than firms in the manufacturing and service sector (see the Table 3.10 and Figure 3.19 below).

Figure 3. 19 Productivity by sectors (2010 – 2013)



Source of data: TA

Table 3.10. Productivity by three economic sectors

	2010	2011	2012	2013	Growth rate
Manufacturing	24,725	28,189	29,190	27,704	0.11
Construction	42,798	40,786	40,923	39,122	- 0.04
Service	12,427	12,933	13,766	13,975	0.07

*The rate is calculated by comparing 2010 with 2013

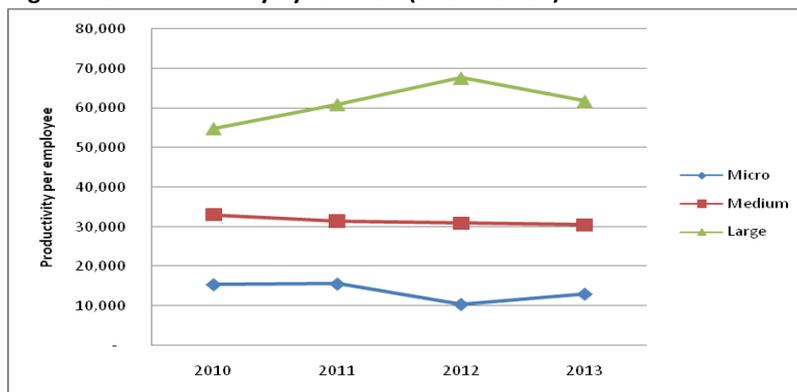
Source of data: TA

Concerning the distribution of productivity by size of firms, results (Figure 3.20) suggest that, on average, large firms show higher productivity than small and medium-sized firms. These findings are in line with theories that relate the firm size to higher productivity. This pattern is often attributed to scale effects or allocative efficiencies. The empirical evidence suggests that this pattern is

⁴⁰The GDP structure shows that government investments in infrastructure represent one of the major drivers of economic growth in last several years. Thus, the productivity growth of firms operating in construction may be related to this factor.

characteristic for many regions. For instance, in their study Ayyagari *et al.* (2011a) argue that large firms are typically more productive than small firms. Similar results were found by a World Bank (2012) study which confirms that firm size is positively correlated with productivity. There may be other explanations that suggest higher productivity for large firms, such as better organisational capabilities and better management practices. There are also findings in which higher productivity of larger firms is related to other factors. For instance, in one of their studies, some authors from the World Bank (Unleashing prosperity, 2008) present evidence suggesting that while large firms have the capacity to organize internal training for their workers, smaller firms often do not; larger firms in general offer higher wages than smaller firms do; and finally firm lending is more concentrated among large firms than on smaller ones. The impact of size of firms on the productivity growth is analysed in more detail in the subsequent paragraphs.

Figure 3.20 Productivity by firm size (2010 – 2013)



Source of data: TA

With regard to the distribution of productivity among subsectors, the results reflect the patterns from three above analysed sectors. In general, as the Table 3.11 below shows, the productivity in all subsectors is largely flat. With regard to the manufacturing sectors, the trend fluctuates over the time, with no major difference from one year to another. A closer look shows that the higher productivity was found in production, mining, and agriculture. Agriculture exceeds productivity growth in most of service subsectors (although the growth patterns in service vary across the subsectors as well). As the results illustrate, the productivity growth in the manufacturing sector is rather fluctuating. Various factors may be related to this. Evidence suggests that having a sustained and a high productivity growth in the manufacturing sector a number of structural and policy factors is required. The literature indicates that differences in productivity growth are mostly related to differences in business environment factors, macroeconomic stability, human capital, financial depth, trade integration, governance (institutional quality), and infrastructure (World Bank, 2008). In addition, the slow pace of productivity growth of firms in manufacturing sector may be due to the insufficiency gains. This is so because growth captures efficiency gains from the technological progress embodied in firm-level improvements, such as better production management methods, better organisational capabilities, better customer support, and better distribution channels for the delivery of goods and services (Unleashing prosperities - World Bank, 2008).

With regard to productivity in the service subsectors, evidence shows (Table 3.11) that the majority of subsectors (out of trade activities and real-estate) have relatively low productivity. According to the literature there are three major factors related to the low productivity level in the service sector. First, services are characterised by lower capital intensity compared to the manufacturing sector

(Wölfl, 2005). Second, the service sector is characterised by a lower rate of innovation and use of information and communication technology, which might contribute to lower levels of growth and a hampering of dynamic efficiency (Nicoletti and Scarpetta, 2003, Gordon, 2004). Third, firms in the service sector are less traded internationally; therefore the competitive pressures are weaker than in the manufacturing sector. The factor of market pressure may be further enhanced by its indirect impact on market structures and consequently innovative activities (Faini *et al.*, 2004).

Table 3.11 Productivity by subsectors

	2010	2011	2012	2013	Growth rate*
Agriculture, forestry, fishing	92,670	74,913	84,163	104,399	0.13
Mining	111,939	145,509	78,310	121,673	0.09
Production	77,602	85,216	84,800	82,502	0.06
Recycling	116,609	235,334	260,934	118,046	0.01
Electricity, gas and water supply	55,606	34,943	39,187	57,246	0.03
Construction	127,440	118,248	109,222	111,976	-0.12
Wholesale trade	206,504	199,440	192,784	193,095	-0.06
Retail trade	136,060	144,069	148,061	141,336	0.04
Hotels & Restaurants	57,952	49,523	52,586	50,911	-0.12
Transportation	103,594	89,167	88,921	88,182	-0.15
Financial intermediation	41,316	45,809	63,336	100,301	1.43
Real estate activities	167,055	198,577	200,543	247,097	0.48
Professional organisations (auditing, research, etc)	92,186	87,021	87,279	81,745	-0.11
Public administration	9,477	12,143	10,841	18,069	0.91
Education	33,753	34,482	33,987	27,833	-0.18
Health care	30,175	30,656	28,285	25,434	-0.16
Other business activities	58,827	15,084	38,693	27,280	-0.54
Artistic activities	38,182	39,857	40,445	37,307	-0.02
Other services	43,777	45,368	48,055	30,117	-0.31

*The rate is calculated by comparing 2010 with 2013

Source of data: TA

Intending to find out the relationship between type of firm (micro, small, and large) and the level of productivity, a simple linear regression for three economic sectors was performed. Results suggest that in the manufacturing sector, being a large firm matters in terms of productivity. That means it is likely that, the larger the firm, the greater the productivity and vice-versa. The strong correlation between larger firms and greater productivity is reflected by Beta = 0.94 and p=0.054. The simple linear regression was: $Productivity\ in\ manuf. = 6321.58 + 0.345 * productivity, R^2 = 0.81, F = 16.374$. This is not the case with medium and small firms, though being a medium size firm has a higher advantage in terms of productivity than being a small firm.

It looks like the productivity of firms operating in the construction sector is less affected by the size of firms. More specifically, the regression results show that, though not statistically significant (p > value is higher than 5 percent) being a medium-size firm matters in terms of productivity. Stronger correlation between variables was reflected to medium-sized firms since beta is equal to 0. And p=0.063. The simple linear regression was: $Productivity\ growth\ in\ construction = 783.4684 + 1.237 * productivity, R^2 = 0.213, F = 14.491$. The regression outcomes indicate that being large or small firms does not have any great significance (see the Table 3.12 below).

As can be seen from the table below 3.12, there is a strong negative correlation between medium-sized firms and productivity. This is reflected through Beta = -0.941 and p = 0.054. The simple linear regression was: $Productivity\ growth = 32652.95 - 0.615 * productivity, R^2 = 0.829, F = 15.59$.

Table 3.12 Linear regression results between economic sectors and firm size

Predicted variables	Predictors	Coef.		Std. Err.		t		P>|t|	Beta	R-sq.	F
		Constant	Size	Constant	Size	Constant	Size				
Manufacturing	Micro	34504.6	-0.517	0.4203	5799.13	-1.230	5.950	0.344	-0.66	0.15	1.51
	Medium	74377.8	-1.489	0.6304	-2.3600	3.740	-2.360	0.142	-0.85	0.60	5.58
	Large	6321.6	0.345	0.0852	5236.31	1.210	4.050	0.054	0.94	0.84	16.37
Construction	Micro	37686.6	0.236	5557.66	0.4028	6.780	0.590	0.617	0.38	0.15	0.34
	Medium	783.5	1.237	10545.05	0.3345	0.070	3.810	0.063	0.94	0.82	14.49
	Large	50464.0	-0.156	0.1695	0.1695	4.850	-0.920	0.454	-0.55	0.30	0.85
Service	Micro	16493.7	0.109	1751.41	0.127	9.420	-1.860	0.204	0.80	0.45	3.45
	Medium	32653.0	-0.615	4909.97	0.156	6.650	-3.950	0.053	-0.94	0.83	15.59
	Large	6572.5	0.109	3618.47	0.0589	1.820	1.860	0.204	0.80	0.45	3.45

Source of data: TA

To sum up, results revealed that the aggregate productivity trend of these firms during this period were increasingly flat, with a downward inclination. Firms with higher labour productivity were found in the construction structure. With regard to the size of firms, in general results suggest that the larger the firm, the higher the labour productivity. A previously stated, the factors related to higher productivity among firms are likely to be related to scale, efficiency, organisational capabilities, better management practices, better access on finance, etc. This is more characteristic of large firms operating in the manufacturing sector. With respect to firms that operate in construction and in the service sector, the outcomes indicate that being a medium-size firm means enjoying better productivity prospects. Subsector analysis shows that in the manufacturing sector, production, mining, and agribusiness industry subsectors are more productive. These sectors, specifically the agribusiness sector, are much more productive than the majority of subsectors in the service sector. Concerning the subsectors in the service sector, findings suggest that the majority of services operate far under the average productivity. Factors often used to explain this pattern are related to the capital intensity that firms in the service sector apply compared to the manufacturing sector, lower rate of innovation and lower use of information and communication technology, firms in the service sector are less traded internationally, etc.

3.8. Conclusions

In this chapter the impact of firm dynamics on the growth of firms in Kosovo was investigated. Datasets utilised during the analysis enabled the study of the evolution of firm dynamics overtime, including the rates of entry and exit of firms, the average firm size of entrants, and firm survival rates. Overall, there were three components around which the process of analysis was conducted: the Schumpeterian theory of creative destruction, the stylised facts generated from empirical evidence and the comparison of findings of Kosovo with findings of a small sample of comparator countries.

In general the results indicate that in many aspects firm dynamics in Kosovo resembles more firm dynamics of other developing countries which in general are characterised by significantly higher firm entries and lower exit rates as opposed to those in developed countries which are characterised by lower entries and significantly higher exits. However, findings from this study indicate that some firm dynamics patterns in Kosovo differ significantly from all other comparator countries. More significant differences have been found with respect to large firms rather than small firms. With regard to entry rates of larger firms, the evidence indicates some patterns that seem to be idiosyncratic to Kosovo. The entry of larger firms, in both, manufacturing and total business, is

significantly lower than in comparator countries. Another pattern which seems to be idiosyncratic to Kosovo is the rate of exit of firms. The evidence shows that firm exit rates in this country are significantly lower than other comparator countries. The low rate of exits suggests that economy of Kosovo is characterised by low firm turbulence as opposed to other comparator countries. The empirical evidence shows that the exit rates in developed countries are in some cases twice as high as in Kosovo. The lower exit rates indicate that perhaps market pressure in Kosovo is low. Further, this evidence implies that the impact of “creative destruction” in Kosovo is significantly reduced. On the other hand, the reduced role of “creative destruction” may suggest that firms in Kosovo, apart from being economic phenomena, are also social phenomena.

Similar results were found in relation to survival rates. The results suggest that due to market pressure, survival rates in developed economies are more turbulent than their counterparts in developing economies such as Kosovo. The differences may be a function of market orientation and the environmental factors in which firms operate. Broadly, the survival rate patterns in Kosovo are in line with those of entry and exit rates. The regression outcomes suggest that survival rates are a function of the economic sector in which they operate, size of the firm, the ownership type, and also the region in which they operate.

In conclusion, if the firm dynamics framework points out that creative destruction through market mechanism enables firm churning process, which in turn has an indirect impact on firm growth, then based on the empirical evidence generated in this empirical study, it can be inferred that this impact in Kosovo is considerably reduced. These results may point to the conclusion that firms in Kosovo are far less sensitive to firm turbulence; the pace of churning is far lower than in developed economies, and as a result, the firm dynamics effects are far less growth enhancing than in developed economies.

CHAPTER 4

4. Organisational Capabilities and Managerial Practices of Firms in Kosovo

This chapter is focused on the identification of differentiating factors between high-growth firms and the other group of firms in the manufacturing sector in Kosovo. The aim is to discern discriminating factors at the level of inputs (technology, finance, and human capital), organisational capabilities, and management practices that influence differences between high-growth firms and other group of firms. More broadly, this section investigates those characteristics that both high-growth and other group of firms share, together with those characteristics in which they differ.

The chapter is organised as follows. After the introduction section, the literature related to organisational capabilities and managerial practices is reviewed. The second section discusses the methodology used throughout this chapter. The third section provides a statistical summary of the dataset. The fourth section presents empirical results based on the Mann Whitney U test and logistic regressions. In the final section conclusions are drawn.

4.1. Related literature on organisational capabilities and managerial practices

This section provides an updated literature review of firm resources, organisational capabilities, and the management practices approach. The section is organised as follows: the first part reviews the literature on organisational capabilities, followed by the literature on managerial practices. The main findings from these two components are then summarised and presented in the light of the next steps of this study. In the last part of this section the theoretical framework, the research question and propositions raised by this study are provided.

If firms that operate in the same economic sector face similar business conditions we might expect, other things being equal, to exhibit some degree of similarity with respect to performance. According to Porter (1980), economic sectors (industries) have their own specific structure, and the variety of profitability among firms derives from how good firms manage to position themselves against the structure. His framework builds on the structure-conduct-performance approach. The elements of structure-conduct-performance approach can be traced back to the work of Edward Mason (1930). The central hypothesis of this approach is that observable structural characteristics of a market determine the behaviour of firms within that market, and that the behaviour of firms in a market, give structural characteristics, and determine measurable market performance (Martin, 2002: 119). In other words, the firm's performance in the marketplace depends critically on structure of the market and the firm's conduct. As the term suggests, the framework consist of three major variables: (a) Structure - which refers to market structure and its variables such as seller concentration, degree of product differentiation, and barriers of entry (Scherer and Ross, 1990). (b) Conduct - which refers to a firm's behaviour and includes variables such as the firm's pricing strategies, collusion, advertising, research and development, and investment capacity (Scherer and

Ross, 1990). (c) Performance - which refers to the outcome or equilibrium assessed in terms of allocative efficiency, and variables mostly used to measure performance are profitability and price-cost margin (Martin, 2002). As can be noticed, the central point of the structure-conduct-performance approach is that there is a relationship between market structure, conduct and performance. More specifically, according to this framework it is the market structure that determines the firm's conduct/behaviour, and this in turn determines performance:

Structure → Conduct → Performance

In contrast to that, there are theories which argue that not industry structure, but the unique cluster of resources and the way the resources are utilised are what influences the variation in profitability among firms (Collings and Montgomery, 1995). Proponents of this framework point out that if we want to find the answer to why firms within the same sector/industry experience different levels of profitability, we should search for factors that reside inside firms (Barney, 1991). Firms own bundle of resources which vary between them, and some of these resources serve to firms as "isolating mechanisms" to gain a competitive advantage in the marketplace (Rumelt, 1984).

The first ideas about the resource-based view originated with Edith Penrose (1959). Her basic argument was that a firm consists of a collection of productive resources, which can contribute to a firm's competitive advantage to the extent that they are exploited in such a manner that their potentially valuable services are made available to the firm. However, the resource-based theory is more associated with the work of Prahalad and Hamel (1990), Rumelt (1991), Barney (1991), Grant (1991), and Peteraf (1993).

One of the seminal articles related to resource-based theory is the one written by Barney (1991) called 'Firm resources and sustained competitive advantage'. The arguments put forward in this article were built upon two assumptions. First, firms operating within the same industry are heterogeneous in terms of the strategic resources they control, and second, these resources are not perfectly mobile across firms, and thus heterogeneity can be long lasting. Special emphasis is given to the impact of these assumptions on the identification of a firm's internal resources that lead to the creation of sustained competitive advantage.⁴¹ Barney (1991) believed that firms cannot expect to obtain sustainable competitive advantage when strategic resources are evenly distributed across all firms and when they are highly mobile. He also pointed out that sustained competitive advantage cannot be purchased on the open market, but it is created internally and primarily due to rare, imperfectly imitable and non-substitutable resources controlled by the firm.

The essential question associated to resource-based theory is what are the specific resources that enable some firms to have superior performance relative to others? Many studies attempted to investigate and articulate specific resources associated to competitive advantage. In the beginning the empirical research has associated factors to competitive advantage with inner differences across

⁴¹A firm is thought to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitor. Sustainable competitive advantage is conceptualized as implemented a value created not simultaneously being implemented by any current or potential competitor and when these other firms are unable to duplicate the benefits of this strategy (Barney, 1991).

firms such as founding conditions, historical or chance events (Helfat and Leaberman, 2002). As stated above, it is Barney (1991) who argues that superior performance originates from endowed heterogeneous resources which are able to lower the cost of production and service provision, or increase willingness to pay more. Building upon these views, Leiblein, (2011) points out that only firms endowed with heterogeneous resources attain competitive advantage (relative willingness to pay minus cost), which are essentially based on the relative productivity of a bindingly scarce resource. Furthermore he noted that not scarcity per se, but the capability that lies behind the resource is the one which enables those who control more functionally productive resources to capture value.

4.1.1. Capabilities as bundles of tangible and intangible assets

For the resource-based theory, resources represent units of analysis, and as such represent inputs used by firms to carry on business operations (Grant, 2002). The resources of a firm include all assets, capabilities, organizational processes, firm attributes, knowledge, etc. controlled by a firm which enable to conceive of and implement strategies that improves its effectiveness and efficiencies (Daft, 1933, cited by Barney, 1991; 3). Grant (2002) categorises firm resources into three main groups: tangible capital resources, intangible capital resources (organisational capabilities), and human capital resources. He states that capabilities refer not only to a bundle of resources, but involve complex patterns of coordination between people and other resources. For him a capability represents working routines, including working routines of top management such as monitoring routines, strategy formulation routines, etc.

Many empirical studies have been devoted to the identification of specific resources and capabilities that have the potential to attain a sustained competitive advantage.⁴² This implies that not all resources that a firm may possess have the same strategic relevance. Barney (1986a) argues that some resources may even prevent a firm from conceiving and implementing valuable strategies. Therefore, vital to a firm is identification of resources that provide a source of sustained competitive advantage. The term sustained here does not refer to permanence, but rather it implies an advantage which cannot be competed away because competitors are unable to duplicate it (Barney, 1991).

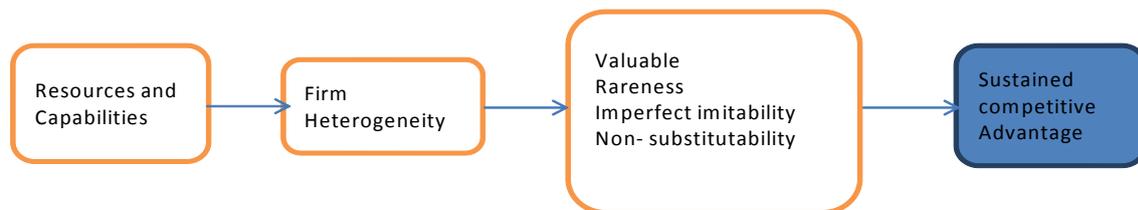
According to Barney (1991), a resource must have four attributes to provide a potential for a sustained competitive advantage. First, a resource should be valuable, i.e. adding value to a firm. Second, a resource should be rare among a firm's current and potential competitors. For instance, a rare resource may be the firm's leadership. Third, a resource should be imperfectly imitable.⁴³ A resource should have a value and be rare in order to provide a potential for competitive advantage. However, if a firm wants to achieve a competitive advantage, it is necessary that other competitors find difficult to duplicate that resource. For Barney (1991) the first reason why other firms find it extremely difficult to replicate that resource is related to the path it has pursued to be created. He

⁴²(Barney, 1986; Dierickx and Cool, 1989; Grant, 1991; Ray and Barney, 2004; Wernerfelt, 1984; Manohey and Pandian, 1992; Amit and Schoemaker, 1993; Fahy and Smithee, 1999; Wernerfelt, 1984, 1995; Fahy, 2000; Lodereret *al.*, (2010); Leiblein, 2011; Barney *et al.*, (2011; etc.).

⁴³Key resources used are impossible, costly or difficult for other firms to duplicate.

talks about the path dependency concept which actually is linked to the unique experiences of a firm to generate such resources that cannot be bought on the open market. Another reason why the resource cannot be duplicated by other competitors is linked to the concept termed causal ambiguity. For Barney (1991), causal ambiguity exists when the link between the resources controlled by a firm and its sustained competitive advantage is not understood, or at least is only partially understood. Because of this specific characteristic of the resource, competitors are unsure which resources to acquire, and if acquired how to configure them. Finally, he talks about social complexity, a third attribute of imperfectly imitable resource which is based on complex social interactions. In other words, specific characteristics of the resource may be ingrained between managers of the firm, its organisational culture, or its reputation. The fourth attribute of a resource is related to non-substitutability. According to Barney (1991) this attribute implies that resources must not be substitutable by other strategically equivalent valuable resources. In sum, from the perspective of resource-based framework, firms can attain a sustained competitive advantage as a result of resource selection, adequate deployment of the resources through organizational capabilities, and both of them are based upon the assumption of firms' resource heterogeneity (Figure 4.1).

Figure 4.1. Attributes of unique resource capabilities



4.1.2. Human capital resources

Human capital is seen as a critical underlying mechanism that enables the firm to recognise its heterogeneous resources and capabilities (Barney *et al.*, 2011). For over twenty years researchers involved in the development of resource-based theory have tried to explain why some firms outperform others (Barney, 1991; Barney *et al.*, 2001; Acedo *et al.*, 2006). By trying to identify the most valuable resources which most likely shape the firm's performance, researchers converge on human capital as perhaps the most universally valuable and imperfectly imitable resource (Kogut and Zander, 1992; Grant, 1991, 1996).

The term human capital refers to the knowledge, skills, and abilities embodied in the workforce (Coff, R., & Kryscynski, 2011). Within human capital is included not only knowledge, skills, and abilities that can be explicit, but also the tacit knowledge, skills, and abilities which are not easy to be articulated (Polanyi, 1966). Literature argues that these variables along with education, training, and experiences that managers and employees possess, are the key drivers of superior performance.

According to this framework, education is one of crucial factors that enable the creation of sustained competitive advantage. Earlier as well as recent studies show evidence about the relationship between level of education and firm performance. For instance Casson (1982) argues that the entrepreneurs' skills and competencies are associated with business success, and also the

accumulation of knowledge and prior qualifications can increase the confidence of entrepreneurs. Education is often seen as an influential factor in business success because it can enhance an entrepreneur's psychological confidence, knowledge, and skills. In this context, Brush and Hisrich, (1991) note that years of the formal education of entrepreneurs before they start a business has a positive effect on firm performance. In a study of firms in Oklahoma, USA, Box *et al.* (1993) also confirm that there is a positive relationship between high education level of entrepreneurs and the performance of manufacturing firms. In small businesses, the education level of entrepreneurs can be a critical success factor in helping firms to survive and manage in difficult conditions and can keep the business profitable (Yusuf, 1995). Schutjens and Wever (2000) suggest that entrepreneurs with a reasonably good education can better deal with complicated business activities.

Recent empirical studies provide similar outcomes. For instance, using data from 208 organizations, Youndt *et al.* (2004) found that investment in human capital and education is more effective than investment in other forms of capital. Similarly, Griffith *et al.* (2004) examining the determinants of productivity growth in a panel of industries across twelve OECD countries, found that human capital and more specifically education stimulates growth directly through innovation and also indirectly through technology transfer. By using data on human capital and levels of automation in manufacturing across U.S. cities Lewis (2005) provides further evidence about the link between education and technology adoption. He shows that cities with lower human capital (due to low-skilled immigration) have lower levels of automation, even within narrowly defined industries. Similar results were also obtained by Switzer and Huang (2007) who found that the performance of mutual funds (a sample of mutual funds in Canada) is directly related to managerial human capital characteristics.

Training for managers and workers is crucial to upgrade and update their know-how, knowledge, and skills. This is particularly important for the leadership positions that can enhance firm performance. Specific-firm training can therefore increase the competency of managers and workers, competency which gradually becomes a "strategic asset" (Winter, 1987). Benefits of training accumulated from the past builds "bundles" of routines that can be difficult to understand and imitate (Koch and McGrath, 1996), and which can improve competitive advantage and consequently lead to superior performance.

Work Experience of an entrepreneur is one of the prerequisites for starting a business and is considered to be an influential factor in firm performance (Cooper, 1981). Evidence indicates that prior experience provides both general and specific knowledge and skills to human resources, and consequently it can be a source of sustainable competitive advantage (Yusuf, 1995). Box *et al.*, (1993) in their study of 300 manufacturing firms in Tulsa, Oklahoma, USA, indicate that prior years of experience of entrepreneurs were significantly correlated with performance. Experience accumulates know-how through "learning by doing" and on-the-job training, both of which play a crucial role in performance of firms (Bishop, 1991; Castanias and Helfat, 1991).

Therefore, it can be expected that human capital resources represented through formal education, training activities, and work experience, are one of the factors that differentiate high performing and low performing firms that operate in developing countries such as Kosovo.

4.1.3. Tangible capital resources

Tangible resources contain physical attributes - physical capital resources and financial resources. According to Barney (1991) physical capital resources include physical technology used in the firm, including the firm's plant and equipment, its geographic location, and its access on raw material. He does not dispute the relevance of physical resources, but he points out that complex physical technology is not an imperfectly imitable asset, since it can be easily duplicated by other competitors. For instance, if a firm can purchase a certain physical technology and implement it by using certain strategies, other firms should also be able to do the same. The way that these resources are used and exploited is what makes the difference. Two firms may possess the same physical technology, but only one of them may have knowledge, social relations, culture and tradition to fully exploit this technology and implement strategies which other firms find difficult to duplicate (Wilkins, 1989 cited by Barney, 1991). Consequently, firms need to develop those capabilities which are idiosyncratic, so distinctive that it becomes very difficult for other firms to duplicate. These capabilities are very much related to managers and employees of firms who are able to deploy knowledge, skills and abilities in a very distinctive way (Drucker, 1993). There have been studies that highlight the relationship between the sophistication of technology and superior performance (Steiner and Solem, 1988; Storey, 1994).

Financial capital resources include the availability of financial funds used by firms to finance their business activities (cash balance, debtors, creditors, etc.). There are few studies dedicated to the impact of internal finance on firm performance. Most studies have focused on the impact of access on external funds on growth of firms. However, having an appropriate financing strategy is crucial to achieve business success (Storey, 1985). Hitt and Ireland (1985) found that finance activities are positively associated with performance. Moreover, there are studies which argue that the availability of financial resources can expand a firm's capacity to support its innovative activities (Lee et al., 2001; Delcanto and Gonzalez 1999; Harris and Trainor 1995), whilst the lack of financial funds may limit firm level innovation (Baysinger and Hoskisson, 1989; Teece & Pisano, 1994; Helfat, 1997). According to transaction-costs economics and agency literature, internally (firm) generated funds are more conducive to R&D activities and investments than external funds. This is so primary because of information asymmetries between the firm and the external capital market (e.g., competitors get information on R&D projects; firm lose total control over their innovations). Tangible resources represented through the implementation of new technology and financial resources can be one of the factors that influence the performance variability among firms that operate in a low-economic environment.

4.1.4. Organisational capabilities as a unique resource

Literature has treated widely the role of organisational capabilities as unique resources that enable the attainment of a sustained competitive advantage. Teece (2000) for instance notes that superior performance depends on a firm's ability to defend and use the intangible assets. Hitt *et al.*, (2001b) point out that strategically intangible resources are more important because through them firms create necessary prerequisites for generating sustainable advantage in the marketplace.

As is argued by Barney (1991), whilst the existence of resources is crucial, the existence per se does not confer a sustained competitive advantage to firms. A critical task for management is to how to use capabilities to produce goods and provide services that customers need but have not yet even imagined (Prahalad and Hamel, 1990). Drawing on the above insights provided by literature, provided below is a set of organisational capabilities that potentially affect the performance variability among firms.

Corporate entrepreneurship is an organisational capability which for a long time has been viewed by literature as a core constituent of the dynamics of capitalism and the driving force of the whole market system (Mises, 1949; Baumol, 1993). By endeavouring to gain a competitive advantage and create value, firms must effectively manage their resources and build unique capabilities (Sirmon, Hitt, and Ireland 2007). In this context, corporate entrepreneurship is regarded as a critical organisational capability embedded in an enterprise's culture, which contributes to building and renewing a firm's competitive advantages (Zahra and Covin 1995; Lee, Lee and Pennings 2001; Morrow *et al.*, 2007).

Following the concept of resource-based theory, corporate entrepreneurship refers to the articulation of a long-term vision by a firm that aims higher growth through the introduction of innovative products, technologies and processes (Foss *et al.*, 2008). It is generally related to the development of new business ideas and opportunities within firms (Birkenshaw, 2003). Many research studies have discussed corporate entrepreneurship in the context of firm-level entrepreneurial orientation which is reflected by three dimensions: the orientation of a firm toward innovation, risk-taking, and pro-activeness.⁴⁴

Innovation in general is related to the creation of new products, services, processes, technologies and business models (Morris and Kuratko 2002). For some other authors this definition of innovation is too narrow to capture the whole range of activities which may be related to the entrepreneurship mind-set. Hence, for Kreiser *et al.*, (2002) innovation refers to a capability and willingness of a firm to support creativity and experimentation and moreover to solve recurring customer problems. For these authors innovation does not mean only generating creative ideas, but also involves the commercialisation, implementation and modification of existing products, systems and resources. In other words, by being innovative in terms of entrepreneurship mind-set, firms manage to develop unique sets of competencies within themselves thereby differentiate themselves from other competitors (Kreiser *et al.*, 2002, Hashi and Stoicic, 2010).

Risk-taking another constituent of corporate entrepreneurship and it is linked with the ability of firms to use effectively resources, exploiting new opportunities, and specifically launch projects with uncertain outcomes and tentative projected returns on investment (Scheepers, Hough and Bloom, 2008). Risks can be minimised either by the knowledge residing in a firm, or by unique capabilities or networks to exploit the opportunity (Morris & Kuratko 2002). Risk can be minimised when firms engage in experiments, when they test markets, and in this manner over time they assimilate risk-

⁴⁴ Miller & Friesen 1983; Covin and Slevin 1991; Zahra 1991, 1993; Knight 1997; Dess, Lumpkin and McGee 1999; Bouchard 2001)

taking capabilities which makes them more successful than others (Scheepers, Hough and Bloom, 2008). It is quite understandable that while implementing projects, firms may make mistakes, but these failures ensure more sustainable successes in the long run (Morris & Kuratko 2002). Morrow *et al.*, (2007) stress that managers need to take risks to change existing resource portfolios and alter an enterprise's capabilities; they need to be sufficiently motivated. Research on corporate entrepreneurship notes that certain internal factors, such as compensation practices (for example managerial option incentives) may encourage managers to take moderate and calculated risks (Wright *et al.*, 2007).

Pro-activeness is defined as a situation when management drives a firm toward the achievement of its objectives by aggressive execution and follow-up actions (Kreiser *et al.*, 2002: 78), utilisation of aggressive and unconventional tactics towards rival firms (Knight, 1997), or when a firm shows an aggressive competitive orientation (Covin & Slevin 1989). In other words, pro-activeness as a critical element of entrepreneurship is associated with several attributes such as the firm's disposition towards its competitors, organisational pursuit of favourable business opportunities, the attitude to be a pioneer or fast follower and a high regard for the initiative of employees (Stevenson & Jarillo 1990; Lumpkin & Dess 1996; Knight 1997).

In sum, firms endowed with entrepreneurship mind-set are constantly in search of new opportunities by anticipating future demand and developing products and services in anticipation of customer needs (Kreiser *et al.*, 2002).

The concept of dynamic capabilities has evolved from resource-based view of the firm. It was first put forward by Teece *et al.*, (1997) and since then this concept has been widely discussed by many scholars.⁴⁵ For Teece *et al.*, (1997) dynamic capabilities imply the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments. The theoretical aim of dynamic capability approach is to understand how firms can sustain a competitive advantage by responding to and creating environmental change (Teece, 2007).

Empirical research studies view dynamic capabilities as something that can be built internally rather than purchased on the open market (Makadok, 2001). These capabilities are considered as organizational processes (Helfat *et al.*, 2007), or routines (Zollo and Winter, 2002) which may become embedded in the firm over time. In the most general sense, dynamic capabilities are employed to reconfigure the firm's resource base by obliterating obsolete resources or recombining old resources in new ways (Simon and Hitt, 2003). Due to the fact that resources are shaped by the decisions that a firm has made throughout its history (Eisenhardt and Martin, 2000; Zollo and Winter, 2002), implies that dynamic capabilities are in essence a function of path dependency (Dierickx and Cool, 1989). Path dependency "not only defines what choices are open to the firm today, but...also puts bounds around what its internal repertoire is likely to be in the future" (Teece *et al.*, 1997: 515).

⁴⁵For example, Eisenhardt and Martin, 2000; Helfat and Peteraf, 2003; Teece *et al.*, 1997, 2007, 2010, 2011; Zollo and Winter, 2002, etc.

Teece, (2011) argues that dynamic capabilities can be grouped into three clusters of activities and adjustments: (1) identifying and assessing new opportunities (*sensing*); (2) mobilization of resources to address an opportunity and to capture values (*seizing*); and (3) continued renewal (*transforming*). Further, he states that these three variables are required if the firm is to sustain itself as markets and technologies change (p. 11).

The variable of *sensing* for Teece (2011: 11) is an “inherently entrepreneurial set of capabilities that involves exploring technological opportunities, probing markets, and listening to customers, along with scanning the other elements of the business ecosystem”. According to him, deployment of this variable requires from management to build and “test” hypotheses about market and technological evolution, including the recognition of “latent” demand.

In regard to *seizing* capabilities, Teece (2011) notes that these capabilities include the design of business models to satisfy customers, securing access on capital and the necessary human resources, establishing strong relationships with suppliers, complementors, etc. He also adds that good inventive design is a necessary but not sufficient condition for superior performance in this area.

Discussing the *transforming* capabilities, Teece (2011) states firms need these capabilities mostly when new opportunities emerge. However, he notes that these capabilities are needed also periodically to soften the rigidities that develop over time from asset accumulation, standard operating procedures, and insider misappropriation of rent streams. Furthermore he points out that a firm’s assets must also be kept in alignment to achieve the best strategic “fit” – from firm to ecosystem, from structure to strategy, and from assets to each other.

Marketing capabilities refer to a firm’s ability to develop and maintain lasting customer relationships (Moorman and Slotegraaf, 1999). Fowler *et al.*, (2000) state that when firms develop adequate marketing competencies, then they would be more apt to better understand their customers’ current and future needs, to better serve these needs, to reach new customers, as well as to effectively analyse competitors and competition. This is why marketing-related competence is considered by literature as an important driver for superior performance (Day, 1994). Moreover, adequate marketing capabilities enable firms to find and select markets, find out distribution channels, to position their products in terms of prices relative to their competitors, the type of advertising channels to use, the kind of branding strategy to implement, etc. (Kotler (2004).

Marketing capabilities serve as a source of sustained competitive advantage since their activities can hardly be transferable (Capron and Hulland, 1999) they can be imperfectly imitable (Bharadwaj *et al.*, 1993), and non-substitutable (Moorman and Rust, 1999). Many empirical studies show a direct link between market orientation and superior business performance.⁴⁶

⁴⁶Narver and Slater, 1990; Ruekert, 1992; Deshpande’ et al., 1993; Jaworski and Kohli, 1993; Simpson and Taylor, 2002; Kara et al., 2005; Spillan and Parnell, 2006.

Teamwork capability is regarded by research as a key variable to competitive advantage. This is so because of its influence on socialization inside firms and the difficulty of imitating the complex interactions comprising teamwork (Nonaka, 1991; Nonaka and Takeuchi, 1995). Penrose (1959: 46) points out that an organizational team is 'something more than a collection of individuals; it is a collection of individuals who have had experience in working together, for only in this way can *teamwork* be developed'. While working together, team members can learn to exchange ideas, challenge one another's views, and collectively make decisions (Foss *et al.*, 2008).

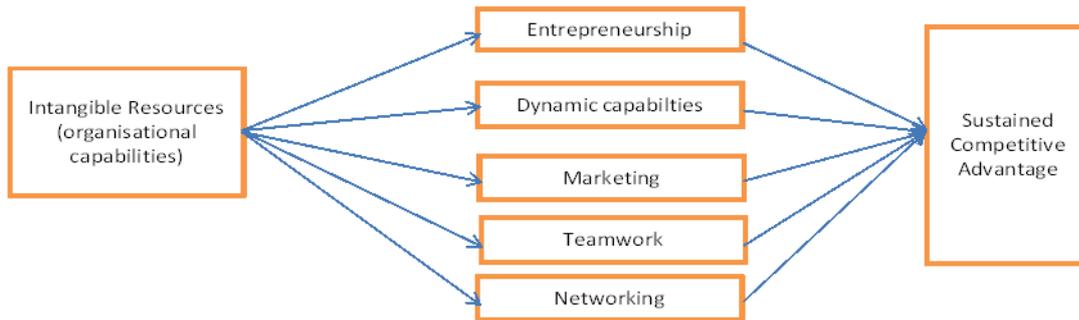
Barney, (1995) notes that because of the social complexity of the processes that support team entrepreneurship (e.g., processes that feed cognitive diversity and positive team dynamics), imitation of a team's idiosyncratic creativity can be difficult to achieve, and these team processes may be the most causally ambiguous source of heterogeneity that help create firms a sustained competitive advantage.

There is empirical evidence which associates the firm's performance with teamwork capabilities. The main reasons behind is that it is collective, the synergy it brings is positive, the skills are complementary and there is individual and mutual responsibility (Robbins, 1996). Senge *et al.*, 1994 argue that firms that encourage cohesive teams, whose members perceive a common destiny through acting together, achieve a higher performance. Moreover, members of firms who prefer to work in teams are usually more satisfied and perform better in their jobs (Cummings, 1981).

Network capability is another component of organisational capabilities seen as important to the attainment of sustained competitive advantage. The main focus is given on establishing such relationships with stakeholders (customers, suppliers, banks, etc.) that enable to better and easier acquire new resources, reduce transaction costs, have access on information about customers, be guaranteed about the quality and safety of raw materials, and finally improve the performance (Cao and Zhang, 2011; Schiefer and Hartmann, 2008; Ruben *et al.*, 2006).

There are findings confirming that network capabilities help firms to better know their customers and other agents (Lee *et al.*, 2011; Day, 2000). Networking helps to establish good level of communication along the chain that leads to a better information flow, useful to realize marketing activities (Lee *et al.*, 2011). Networking is not treated only in terms of pure transactions, but also as a variable which leverages information sharing and market knowledge creation for sustainable competitive advantage (Cao and Zhang, 2011). Establishing network relationships, based upon trust and communication, can also improve innovation capability (Grunert *et al.*, 2008; Wei and Wang, 2011; Imai *et al.*, 1985). Frequently it can happen that innovation is not limited to solitary R&D activities, but also involves cooperation programs, aimed at realizing innovations through collaboration among chain partners, with knowledge and expertise sharing and creation (Ruben *et al.*, 2006).

Figure 4.2. Organisational capabilities and sustained competitive advantage



In sum, it could be expected that organisational capabilities also represent a significant factor to the differentiation between high performing and low performing firms. More specifically, organisational capabilities represented by the corporate entrepreneurship, dynamic capabilities, marketing capabilities, teamwork orientation, and ability to create adequate and sustainable business networking serve as distinguishing factors between firms that operate in undeveloped countries such as Kosovo.

4.2. Management practices as specific-firm capabilities

Many empirical studies recognise the role of management practices as being crucial for generating higher rents (Penrose, 1959; Barney, 1991; Mahoney, 1995). The fundamental argument is that management competence represented through technical, human, and conceptual skills provide the setting for attaining a sustained competitive advantage (Down, 1999; Greenbank, 2000; O'Dwyer and Ryan, 2000; Kelliher and Henderson, 2006). In the last decade, there is a stream of literature which has used an innovative survey methodology to investigate the relationship between management practices and firm performance (Bloom and Van Renne, 2006). The proponents of this literature found compelling evidence indicating that management quality and practices are significantly correlated to the firm performance. Indicators used to measure the impact of management practices on the firm performance include productivity, sales growth, assets growth, etc.

Proponents of this managerial practices approach embrace the fact that technology or capital has a strong influence on the different performance of firms. But as Greenwald (2007) points out, the decision to apply new technology and other factors of production in a systematic way is primarily a management function. He argues that most improvements in operating efficiency are attributable to the small, steady benefits of day-to-day management intervention, not to dramatic technological innovations or capital investments.

One of the seminal articles related to this approach is the one written by Bloom and Van Reenen (2006). These authors have developed a new survey methodology to measure 18 key management practices, grounded on the use of interview-based evaluation tool that defines scores from one ("worst practice") to five ("best practice"). This methodology and the survey tool utilised enabled them to explain statistically the correlation between management practices and firm performance and growth. The authors point out that there is not only one management practice that provides an explanation of the statistical correlation between management practice and performance. They

discuss the average score of eighteen management types of practices, grouped into four areas: operations three practices, monitoring with five practices, targets also with five practices, and incentives with five practices. The outcome of the study indicated that there is a direct impact of these practices on the performance of observed firms.⁴⁷ Moreover, their findings showed that firms endowed with superior management practices were associated with higher productivity, return on equity, and market capitalization.

In another study conducted in 2007, Bloom and Van Reenen followed up their previous research and again the outcomes reinforced the evidence found in 2006.⁴⁸ The results obtained reasserted that business firms with superior management practices were strongly associated with higher and superior performance.

In one of their recent studies, which comprised of about 6,000 medium-sized manufacturing firms across Asia, Europe, and North and South America, Bloom and Van Reenen (2010) confirmed again that there is a robust impact of management practices on superior performance of firms. More specifically, they found there are large differences in management practices across firms as well as countries. These differences in management practices were strongly associated with firm-level productivity and other performance measures, such as profitability and survival rates. They also show that differences in management practices were found to be larger between firms in the same country than across countries. They point out that empirical evidence suggests that firm-specific factors and sector-specific factors are at least as important as the general business environment in shaping managerial performance. Differences in management are correlated with competition, labour market flexibility, education and ownership structure, with dispersed ownership being associated with better performance than state or family-run firms (Bloom and Van Reenen, 2010).

Bloom and Van Reenen (2010) examined the correlation between management practices and firm performance in terms of productivity, profitability, growth rates, survival rates, market value, and found out that higher management scores were robustly associated with better performance. Drawing on three consecutive studies cited above, these authors have identified ten basic patterns related to management practices.

First, their empirical evidence shows that firms that apply “better” management practices tend to have better performance, and this better performance is demonstrated through higher productivity, firms tend to grow faster, they are larger, and finally show better prospects of survival rates. Second, patterns indicate that management practices are not the same and therefore they vary considerably across firms and countries. In this context, they show that most of the difference in the average management score of a country is due to the size of the “long tail” of very badly managed firms. For instance, they found that there are very few very badly managed firms in the US, while in some developing countries like Brazil and India, the number of firms that are very badly managed is high, therefore there is the existence of a “long tail”. Third, patterns demonstrate that different countries

⁴⁷ They have been focused on a sample comprised by 700 firms in most developed European countries such as Great Britain, France, Germany, and the United States.

⁴⁸ The sample was comprised of 700 European firms with an expanded research project encompassing more than 4,000 American, European and Asian firms.

are diverse in terms of management styles. For instance, in the US firms score much higher than Swedish firms in the incentives variable, while are worse than Swedish firms in terms of the monitoring variable. Fourth, Bloom and Van Reenen (2010) find that strong product market competition appears to boost average management practices through a combination of eliminating the tail of badly managed firms and pushing incumbents to improve their practices. The fifth pattern is related to the multinational structure of firms. They find that multinational firms are in general well managed in every country. The reason behind is that these firms perhaps transplant their management styles abroad. For instance, their findings show that the U.S. multinational firms operating in the United Kingdom are better at incentives and worse at monitoring than multinational Swedish firms operating in the United Kingdom. The sixth pattern states that those firms that export (but do not produce) overseas are better-managed than domestic non-exporters. However, these firms show evidence that are worse-managed than multinationals. Pattern number seven is linked with family structure ownership. This pattern demonstrates that inherited family-owned firms and those who appoint a family member (especially the eldest son) as chief executive officer, are far more badly managed on average. The eighth pattern states that firms with government ownership are typically managed extremely badly, whilst, firms with publicly quoted share prices or owned by private-equity firms are typically well managed. The ninth pattern shows that those firms with more intensive use of human capital, as measured by more educated workers, tend to have much better management practices. Finally, the tenth pattern shows that at the country level, a relatively light touch in labour market regulation is associated with better use of incentives by management.

One of the most frequent questions raised in the management practice literature is related to the factors that may influence the adaption of better management practices. In this context, product market competition is seen to be one of factors that robustly influence the quality of management practices. The evidence shows that when market competition is not very intense, some low-productivity firms manage to survive (Syverson, 2004b; Bloom and Van Reenen, 2010). Similar results were also found by the study conducted by Bloom *et al.*, (2009) where they offer evidence demonstrating that tougher competition increases the average management practices. Another factor that influences the quality of management practices is labour market regulations, and it is linked with the ability of managers to hire, fire, pay, and promote employees. Strict labour market regulations are found to be significantly negatively correlated with the management scores on incentives, but they are not significantly correlated with management practices in other dimensions like monitoring or targets (Bloom and Van Reenen, 2010). Ownership and meritocratic selection of the CEO also influences the differences of management practices. For instance, there is empirical evidence showing that firms that are family owned and also family managed (internal CEO) tend to be more badly managed firms, while the family owned but externally managed (external CEO) look very similar to dispersed shareholders (Bloom and Van Reenen, 2010). Firms owned by private equity appear well managed, in particular when compared to family and government-owned firms (Bloom *et al.*, 2009b). Other interesting variables that influence the quality of management practices are firms with multinational status and those with exporting status. The literature shows evidence that because of being able to transfer good management practices abroad; multinational firms show better management practices (Burstein and Monge-Naranjo, 2009). Similar evidence was found for firms that export, which show better management practices than those that do not export (Helpman, Melitz, and Yeaple, 2004). Education is viewed to be strongly correlated with the management scores, and this is linked not only with executive managers but also with workers.

Bloom and Van Reenen, (2010) argue that educated managers and workers principally may find it easier to implement many management practices.

Most of the studies on managerial practices have been concentrated on developed and developing economies. Apart from some studies which alluded that low level of productivity of firms in transition countries is due to the lack of appropriate skills (Estrin et al., 2009; Steffen and Stephan, 2008; Brown et al., 2006; Zelenyuk and Zheka, 2006; Yudaeva et al., 2003), until recently, there were no data on management practices on other than developed economies. Using the MOI survey Broom, Schweiger and Van Reenen (2011) have conducted the first study on management practices in several less developed countries, where they found some striking results.⁴⁹ They found that there is a widespread variation in management practices both within and across countries. For instance, there is grounded evidence suggesting that firms in Central Asian transition countries, like Uzbekistan and Kazakhstan, often operated with extremely poor management practices. On average, firms in these countries are more badly managed than those in developing countries like Brazil, China or India. On the other hand, they found evidence that firms in some central European transition countries like Poland and Lithuania operate with practices which are only moderately different to those of European countries like the United Kingdom, France and Germany. Further on, they find that good management is also strongly linked to better firm performance in transition countries, and in this way they suggest that poor management practices may be impeding the development of Central Asian transition countries. In relation to the factors that may have an impact on the quality of management, they found that those factors that matter in non-transition countries matter in transition countries too. In this context they point out that factors such as stronger product market competition, higher levels of multinational ownership, and greater employee education are all strongly correlated with better management. Similarly to developed countries, Broom, Schweiger and Van Reenen (2011) show that there is strong evidence that shows that higher levels of private ownership are strongly correlated with better management, by suggesting that being open to domestic and foreign competition, privatisation of state-owned and socially-owned firms, and increased levels of workforce education should promote better management, and ultimately higher national productivity.

Some interesting outcomes on management practices were found on some individual countries. For instance, Friebel and Schweiger (2012) investigated whether management quality explains firm performance in Russia. By controlling for the type of firm ownership, they looked at factors that influence management quality in different regions; that is the Far East and the rest of Russia. In contrast to the studies cited above, they could not find robust positive correlations between the quality of management practices and firm performance for manufacturing firms in Russia. As a matter of fact, they found some weak evidence that management practices affect the performance of manufacturing firms in the Far East, but not in the rest of Russia.

⁴⁹ The European Bank for Reconstruction and Development (EBRD), in cooperation with the World Bank, conducted a new survey – the Management, Organisation and Innovation (MOI) with the following countries: Belarus, Bulgaria, Kazakhstan, Lithuania, Poland, Romania, Russia, Serbia (excluding Kosovo), Ukraine and Uzbekistan, as well as Germany as an advanced country benchmark and India as a developing country benchmark.

In sum, it can be concluded that the literature provides grounded evidence that the quality of management and management practices play crucial roles in firm performance. Though the research about the relationship between management practices and firm performance is not new, it is only recently that researchers have managed to develop a methodology and survey tools which illuminate the correlation between these two variables. In fact, the literature has used different variables to measure this relationship. For instance, economists, financial analysts and accountants have utilised the most reliable and acceptable measures available, fiscal ratios, balance sheets, etc. However, Bloom and Van Reenen (2007) provided a methodology and survey tool to illuminate the correlation between management practices and firm economic performance. As a result, it could be expected that different management practices may be one of the factors that explain why there is performance variability between firms that operate in low income countries, such as the case with Kosovo.

4.3. Critical views and resource-based theory limitations

The resource-based theory has been subjected to various critical views. Some critics were indirect by suggesting its improvements (Foss *et al.*, 2008), whilst other authors were more direct to dispute its validity as a theory.⁵⁰ For instance, Priem and Butler (2001) and Lockett *et al.* (2009) argue that resource based theory is constructed of statements that have no empirical content. They stress these statements cannot be tested, because they are true by logic or by definition. More specifically, when we say that "if a resource is valuable and rare, then it can be a source of competitive advantage" is necessarily true by logic (i.e., a tautology) if "valuable" and "competitive advantage" is defined in the same terms (Priem and Butler, 2001). For example, if valuable resources are defined as those increasing efficiency and/or effectiveness, and competitive advantage is defined as achieving increases in efficiency and/or effectiveness, a tautology exists (Priem and Butler, 2001).

The resource-based theory was criticized also in relation to generalizability. Critics point out that when we admit that to attain a sustainable competitive advantage resources should be unique, this in turn denies any potential for generalizability, because one cannot generalize about uniqueness (Gilbert, 2006a, 2006b). Some critics say that it can be generalized only when firms have significant market powers, but not smaller firms (Connor, 2002), or generalizability is difficult because there is a limited number of firms that possess resources with value, rarity, inimitability, and non-substitutability attributes (Miller, 2003). On the other hand those that support the theory say smaller firms may attain a sustained competitive advantage because they possess capabilities generated by intangible assets (Kraaijenbrink, Spender, and Groen, 2010). Barney (2002) himself points out that the applicability of this theory has limited effects on unpredictable environments where new technologies and markets emerge and where the value of resources dramatically changes. Further on he states that in these environments firms need to go beyond the RBT to explain sustainable competitive advantage.

Some scholars argue that the resource-based approach is not a theory (Foss, 1996a, 1996b). They point out that the approach takes knowledge to explain differences between firms and why some

⁵⁰Priem, Butler, 2001; Foss and Knudsen, 2003; Spender, 2006; Lockett *et al.*, 2009.

firms are better at rent creation (Foss, 2007; Dosi, Faillo, and Marengo, 2008). However, according to them, in order to give an explanation about the differing performance levels, and why they are better at rent-creation than markets, specific references to incentives, asset ownership, and opportunism are required (Kraaijenbrink, Spender, and Groen, 2010). The stream of critics does not end here, because there other authors who have criticised the approach taken by this theory.⁵¹ However, in responding to these critics, Barney *et al.*, (2011) argue that resource based model is already established as a theory, which tries to explain why resources and capabilities are essential for understanding the sources of sustained competitive advantage for firms. In other words, they point out that this theoretical model helps us to establish the link between resources and capabilities and the performance of the firm.

To sum up, this section of the literature review has assessed two aspects related to firms' internal resources. First, it has assessed the evidence found by empirical studies that seek to examine the role of human capital resources, tangible capital resources, and intangible capital resources with a central focus on organisational capabilities, in generation of sustained competitive advantage. It is evident that the majority of empirical studies argue that heterogeneous human capital is a critical underlying mechanism for capabilities (Barney *et al.*, 2011). For firms to gain a competitive advantage they must create an economic value, and to create an economic value which is greater than competitors, they must capitalize from organisational capabilities which are internally generated rather than purchased on the open markets. The second section explored the empirical findings in relation to the role of management practices in firm performance. There is a specific stream of literature developed in last decade which robustly argues that management quality is fundamental to firm growth. The research studies based on this approach have developed innovative survey tools and methodologies; they provide compelling evidence though which they argue that management quality and practices are significantly associated with the firm performance.

Apart from examining the current status of research related to the internal resources, the purpose of this review was to identify gaps within the literature, and to see where the theory can best be augmented. Most of research has used resource-based theory as an organising framework to study internal firm resources that enable superior firm performance. Their areas of research have been focused mostly in developed, developing, and transition economic settings. There is little evidence on the specifics of resource-based view in developing economic settings in terms of physical capital resources, organizational capabilities, and specifically in terms of management practices. By extending the focus of investigation of these frameworks in the context of developing countries, this study aims at bringing new empirical evidence which argues that technology (equipment) is not the only recipe for good performance. In addition to technology, the growth of firms depends on organisational capabilities and managerial practices, which play important roles in the pursuit of good performance.

⁵¹ Shimizu, 2007; Newbert, 2007 ;Foss and Knudsen, 2003; Becerra, 2008; Storey and Greene (2010)

4.4. Similarities and differences between resources, management practices, and organisational capabilities

From the above reviewed literature it could be argued that organisational capabilities, resources, and managerial practices are sources which lead to sustained competitive advantage. A closely related question could be: to what extent these factors are similar, overlap each other, or are different from each other? An essential element which makes them similar to each other is that all of them represent internal levers that could lead to superior business performance. Yet, it is obvious that resources are different from organisational capabilities. This is so because resources are more focused on the physical aspects of firms, such as technology, or existence of people with their knowledge and working skills. They can be purchased in the market. On the other hand, managerial practices, in a sense, are of intangible nature. This is so due to the fact that managerial practices deal with internal processes, procedures, systems established internally by firms. However, are these systems unique, or, can they be transferred? Literally, by deploying specific management practices, firms intend to adapt the best way to manage internal resources. In other words, management practices are transferable and adaptable. This is so because they are a form of organisational technology, set of techniques, systems, rules, principles, and typologies which lead to the best way and most rational and efficient model of managing. In short, firms intend to adapt certain operating, monitoring, targeting, and incentivising techniques largely due to their functionality. On the other hand, organisational capabilities are different because they are unique and idiosyncratic to the firm. They are not organisational technology but path dependent and emerging property of organisations. They cannot be purchased in the market. They represent working routines which are not easy to be duplicated by other competitors, primarily due to the path dependency, causal ambiguity, social complexity, or non-substitutability attributes. In Table 4.1 below is provided a more comprehensive and analytical overview of features and attributes that differentiate these three components.

Table 4.1. Attributes that differentiate three components

	Organisational capabilities	Managerial practices	Resources
	Rareness	Generic	Generic
	Causal Ambiguity	Replicable	Identical
	Path dependency	Mimetic	Changeable
Different	Social complexity	Technical nature	Purchasable
Attributes	Due to specific organisational culture internally generated	Adaptable	Physical
	Non-substitutability	Substitutable	Substitutable

4.5. Theoretical Perspective

In the formulation of a theoretical perspective used in this study for investigating the specifics of internal factors that influence the growth of firms in Kosovo, resource-based theory and the managerial practices approach provide a useful framework. This framework provides lenses to identify the sources and the nature of resources and capabilities which most likely shape the firm's performance. Basically, this unified theoretical perspective approaches the explanation of firms' performance in terms of continuous interaction between resources (inputs), organisational

capabilities, and managerial practices (Wernerfelt, 1984; Barney, 1991, Bloom and Van Reenen, 2007).

While resource-based theory accepts that better performance derives from clusters of unique resources utilised by firms, it tends also to explain the nature of such resources which lead to higher business performance. Such resources have to be valuable, rare, imperfectly imitable, and non-substitutable (Barney, 1991). In addition to resource-based theory, the managerial practices approach places special emphasis on the important role played by managerial practices employed by firms. This approach not only deals with managerial practices, but seeks to describe how these practices differ not only across countries, but also across firms operating in the same industry. It also addresses techniques of managerial practices assessment.

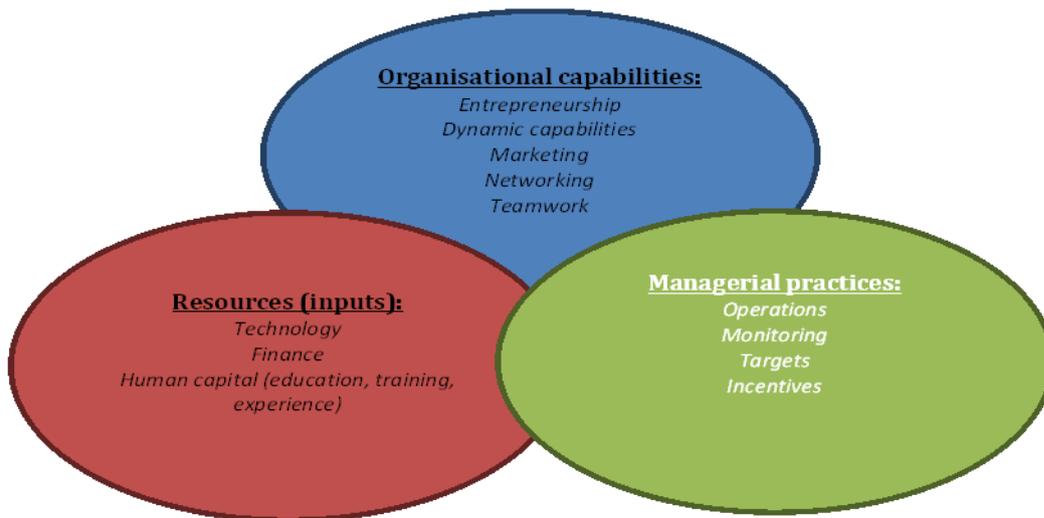
Explaining the resource-based theory, Barney (1991) indicates two overarching variables which explain the performance variability among firms: resources (inputs) and capabilities. Grant (2002) suggested three classes of variables: human capital resources, tangible capital resources and intangible capital resources. On the other hand, Bloom and Van Reenen (2006, 2007, 2010) have added managerial practices as a vital variable associated with superior performance. Drawing on these assertions, it might be concluded that the potential for a superior performance, in any specific situation is the function of the firm's selection of resources (inputs), organisational capabilities and managerial practices. The emphasis on expectations within this theoretical framework refers to the perceived degree of probability that a causal relationship generally exists between the above mentioned variables and a firm's superior performance. This construct of generalized expectancy is seen as an "internal locus of control" when a firm expects that by developing specific and unique resources, organisational capabilities, and managerial practices, superior performance will follow.

In the application of resource-based theory and managerial practices approach to this study, the variables mentioned above will be defined in the following manner:

1. Resources will be defined as inputs used by firms to carry on business operations (Grant, 2002). There are three classes of variables included in this category: technology resources, financial resources, and human capital resources.
2. Organisational capabilities are defined not only as the ability of firms to assemble a bundle of resources, but rather they involve complex patterns of coordination between people and other resources (Grant, 2002). Within the firm, capabilities variables include: corporate entrepreneurship, dynamic capabilities, networking, marketing, and team working.
3. Managerial practices are defined as a bundle of practices which include the following variables: operating, monitoring, targets, and incentive practices (Bloom and Van Reenen, 2007).

These three categories are essential to understand organisational success, bearing in mind that organisational success is vital to firm and industry upgrading, which is then critical to growth (Lazonick, 2013). All this takes place in the context of a business environment which interacts within the triangle set out in the Figure 4.3 below.

Figure 4.3. Organisational success triangle



With these specific variables, the explanation for variety in performance among firms developed by the resource-based theory and managerial practices approach would be adapted to read as follows: the firm-specific resources, organisational capabilities, and managerial practices are underdeveloped in developing countries because these countries are deficient not only in terms of market demand and business environment factors, but also in terms of resources, organisational capabilities and managerial practices. In other words, the low growth of firms in developing countries is not only the function of factors such as market distortions, but first and foremost, the function of underdeveloped organisational capabilities, managerial practices, and resources (inputs).

The following statement represents the underlying reason for designing and conducting this study. It would be expected that independent variables represented by resources (inputs), organisational capabilities, and managerial practices influence or explain the dependent variable; that is, *performance variability between firms*. This is so because better utilisation of these variables may serve as “isolating mechanisms” to gain a sustained competitive advantage in the market (Rumelt 1984).

Drawing on the above theoretical framework, this study aims at answering the following question: *what differentiates high performing firms from low performing firms in Kosovo?*

H1. Resources represented through new technology and financial resources; and human capital resources represented through formal education, training activities, and work experience, are the major factors that differentiate high performing and low performing firms that operate Kosovo.

H2. Organisational capabilities represented by entrepreneurship capability, dynamic capabilities, marketing capabilities, teamwork orientation, and ability to create adequate and sustainable business networking serve as distinguishing factors between firms that operate in Kosovo.

H3. Different management practices are one of the factors that explain why there is performance variability between firms that operate in low income countries, such as the case with Kosovo.

4.6. Methodology

The methodology used is partly the one used by SAPPHO which was designed to study industrial innovation, and more specifically management innovation in two science-based industries; chemicals and scientific instruments.⁵² The project was designed as a systematic attempt to identify and evaluate factors which distinguish innovations that managed to be commercially profitable and those that failed to do so. The SAPPHO approach and methodology argues that for an innovation to be successful in the market, the technological component is not the only prerequisite. Its success depends also on non-technological factors such as: understanding of user needs, marketing, organisation, use of external knowledge sources, and leadership (Rothwell *et al.*, 1974; Freeman, 1997). In other words, the SAPPHO methodology contends that a successful innovation is the function of coupling both technology and market needs (Radosevic and Yoruk, 2012). SAPPHO results have identified several factors that discriminate between successful and less successful innovation including: better understanding of user needs, better marketing approach and implementation, more efficient performance of development work, more effective use of outside technology and scientific advice, responsible individuals, etc. By following a similar logic and methodology, this chapter aims at bringing new empirical evidence which argues that technology (equipment) is not the only recipe for good performance for manufacturing firms operating in a developing economy. In addition to technology, organisational capabilities and managerial practices play important role in the pursuit of good performance.

The reason why this methodology is considered useful for this study is related to the fact that it enables to explore resources which distinguish successful firms from less successful ones. Another reason has to do with the process of how data is gathered and arranged. The process evolves through detailed comparison of paired firms. Data are gathered through in-depth semi-structured interviews with managers/owners of selected firms. Firms are paired based on economic activity. For instance, subjects of interviews were 6 firms that operate in the beverage industry, 2 in the plastic industry, 2 in the footwear industry, etc. Through in-depth semi-structured interviews, many comparable measurements were used; with each of them designed to throw light on the factors that enable higher business growth. They included factors related to tangible resources (physical, finance), human capital (education, training and experience), and organisational capabilities (corporate entrepreneurship, marketing, teamwork, dynamic, and networking capabilities), and management practices (operating, monitoring, targeting, and incentive practices). This methodology enables not only ascertaining factors that enable the growth of firms, but more importantly factors that constrain the growth of firms.

This methodology entailed application of some criteria with regard to the selection of sectors, firms and their pairing. The criteria included the following: first firms had to be operating in the manufacturing sector; the pairing was then based on the condition that firms operate in the same subsector (beverage industry, food, metal, etc.). Second, firms were selected on the basis of size, namely the sample included firms that had a minimum of 20 and maximum of 250 employees.

⁵² SAPPHO stands for Scientific Activity Predictor from Patterns with Heuristic Origins

The pairing technique is used in other natural sciences like biology, chemistry (MacKay and Bernal, (1966) cited by Radosevic and Yoruk, 2012), and innovation projects. The pairing technique enables patterns of dichotomies between high-growth firms versus other firms to be ascertained. It is worth emphasising that though the pairs of firms are similar in terms of size, production, and markets, they are not twin firms.

A high-growing firm in this research is the one that managed to establish a worthwhile increase in sales in last three years. Numerous variables can be considered as providing the basis for growth. But, for a variety of reasons, including data availability and comparability, employment and turnover are the preferred concepts in practice. Therefore availability of data and comparability are the main reasons why turnover/sales is taken as key variable that differentiate high-growth firms from other firms. With these considerations in mind, this study has used the OECD – EUROSTAT Manual (2007: 61) definition which defines high-growing firms as firms with “average annualised growth (in terms of sales/turnover) greater than 20 per cent per annum”. The questionnaire used in the study contained a specific question that asked managers whether the firm experienced a very significant increase (higher than 20%), a significant increase (10% to 19%), a slight increase (between 5 to 9%), slow (1 - 4) or a decline (less than -3%). From the sample, 10 of 32 interviewed firms reported that in the last three years their sales increased by 50 per cent. In the other group of firms are included firms that in last three years the growth of sales was less than 20 per cent.

In order to assess factors that characterise both types of firms, 58 indicators were identified. These indicators were broken down into more detailed variables ranging from tangible resources (physical and financial), human resources (education, training, experience), organisational capabilities (entrepreneurship, marketing, teamwork, networking, and dynamic capabilities), and management practices (operations, monitoring, targets and incentives).

The number of variables used during the interviewing process (185) greatly exceeds the number of cases (32). It means that the survey intended to get a great amount of details from a smaller number of firms. Other more extensive detailed information about the survey are provided in Appendix C.

One of the major limitations of this survey is the small sample size. It covers only firms operating in the manufacturing sector. Future research could expand the size of the sample, and widen out from manufacturing firms. To explore factors of organisational capabilities and management practices, and to try an alternative way to establish which profiles are associated with high-growth firms versus other firms, future research could apply qualitative comparative analysis as well (Ragin, 1987; 2000).

In order to summarise the main findings, the first part of the analysis is highly descriptive. It provides the statistical summary of empirical findings. The second part of the analysis tests hypotheses formulated for this study. Due to the nature of the study and the structure and setup of the data; the statistical technique used belongs to the non-parametric technique family - the Mann-Whitney U test. This statistical method is used to test for differences between two independent groups, that is, high growing firms and the other group of firms. This statistical techniques converts the scores on the continuous variable to ranks across the two groups, and then then evaluates whether the ranks for the two groups differ significantly. More detailed information about this statistical model, its advantages and limitations is provided in the Appendix D.

In addition to the Mann-Whitney U test model, a binary logistic regression is run. This statistical model is applied with the intention to assess the impact of a set of predictors (independent variables) on the differentiation between two groups of firms (dependent variable). More details on this statistical method is provided in Appendix I.

4.7. Statistical summary of data

4.7.1. General Information about firms

The first section of the survey questionnaire, part A, captures some general information about the firms. The purpose was to collect data on the number of employees; the educational level of the founders and other employees by focusing mainly on university and post-graduate degree holders; occupation and area of expertise of founders before firm establishment; and training activities undertaken by firms in the last year.

In terms of number of employees, the results show that the majority are small firms, since they employ up to 50 employees (51.52%). 33% of firms employ up to 100 people, while around 16% of them employ up to 250 employees.

4.7.2. Educational level of founders and employees

In general, 72.7% of firms covered in this survey employ 1 to 10 employees with a university degree. 12 % of them employ 10 to 20 employees with university degrees, 6% of them employee from 20 to 40 employees with university degrees. Six per cent of firms reported that they have no employees with university degree. In terms of master degrees, from 1995 of total employees of the interviewed firms, only 0.009 per cent of them employs people with a master degree; in total only 19 of them hold master degrees. None of them have employees with a PhD.

There was a part of the questionnaire that captured the characteristics of the founders in terms of educational attainment. This component is seen to be a generic one and it is related to the founder's human capital and moreover to the knowledge acquired during formal education. This variable is generally found to be positively related to the likelihood of survival of new firms and firm growth.

Table 4.2 indicates that 45.5% of the founders are non-university degree holders. However, the larger part of the remaining 45.5% does have a degree or post-graduate qualification.

Table 4.2. Formal education of the founders

	Frequency	Per cent
Secondary education	15	45.5
Higher education BA	13	39.4
Higher education BS	2	6.1
Masters	2	6.1
Total	32	100

Source: Survey 2013

4.7.3. Founder’s last occupation

Table 4.3 below provides information in relation to the last occupation of founders before they started the current business. The results suggest that the majority of owners (33.3%) did not have any experience in the same industry before they established their own firms. 24.2% of them had prior founding experience since they worked in the same industry, and 24.2% of them were owners of firms that ceased operation. Finally, 12% of them continue to be owners of firms still in existence.

It is considered that prior industry experience is very relevant for the firm success, because those experienced in other firms are more likely to share knowledge and information; thus greater knowledge of industry practices and routines will be available to the entire firm. As Reagans *et al.*, (2005) argue this pool of knowledge, specifically when there is a team establishment, is often distinct from the knowledge that a single team member accumulates directly. Having prior experience may represent a valuable source of domain specific knowledge that a founder can use, specifically during the start-up stage of a new firm. More specifically, prior founding experience can help firm founders to raise start-up capital, speed a prospective new firm’s transition to a liquidity event and avoid outright failure of the future new firm (Shane and Stuart, 2002).

Table 4.3. Occupation of founders before the firm establishment

	Frequency	Per cent
Owner of a firm still in existence	4	12.1
Owner of a firm that has ceased operations	8	24.2
Employee of a firm in the same industry	8	24.2
Employee of a firm in a different industry	11	33.3
None of above	1	3
Total	32	100

Source: Survey 2013

In terms of subsectors, the Table 4.4 below shows the distribution of prior occupation of founders.

Table 4.4. Last occupation of founders (sector groups)

Prior occupation	Beverage	Metal	Plastic	Agribusiness	Wood	Styropor	Food	Footwear
Owner of a firm still in existence	50				33.3		12.5	50
Owner of a firm that has ceased operations				50	16.7	50	25	
Employee of a firm in the same industry	16.17				33.3		37.5	50
Employee of a firm in a different industry	33.3	100	100	50		50	25	
None of above					16.7			
Total	100	100	100	100	100	100	100	100

Source: Survey 2013

The figures provided in the above Table 4.4 clearly show that on average, only in the food and wood industry did founders of firms have experience in the same industry, while in other sectors; founders did not have any similar experience in the same industry at all.

4.7.4. Main areas of expertise of the founders

This part of the questionnaire covered main areas of expertise of the founders, and had to do with the founders’ specific knowledge and skills acquired during their formal education but also during their previous employment or entrepreneurial experience. Founders of the firms could select up to five areas of expertise, including technical and engineering knowledge, general management,

product design, finance and marketing. As set out below in Table 4.5 below, more than half of the founders (63.6%) have general management skills, while 24.2 % of them have technical and engineering skills, and the others relate to marketing and finance skills.

Table 4.5. Main areas of expertise of the founders

	Frequency	Percent
Technical and engineering knowledge	8	24.2
General management	21	63.6
Marketing	1	3
Finance	1	3
Total	32	100

Source: Survey 2013

The distribution of expertise of the founders across sectors illustrates that in all sectors the vast majority of founders have only general management expertise, with the exception of the wood industry in which 50 per cent of founders have technical and engineering knowledge. One explanation of why the majority of founders have only general management expertise could be that the market in low income countries is characterised by a generally low level of management expertise.

4.7.5. Training activities undertaken during the last year

Training is seen to be a very relevant factor which enables the upgrading and updating of the overall capacities such as know-how, knowledge, and skills. As it is argued by Winter (1987), specific-firm training can increase the managers and workers competency which gradually becomes a “strategic asset”. Continuous training activities can build “bundles” of routines which are difficult to understand and imitate by other competitors, and through which firms can improve their competitive advantage and consequently lead to superior performance (Koch and McGrath, 1996).

The results of this survey show that training activities are mostly conducted by firms themselves. 53.1 per cent of firms responded that they have in-firm provision of training. Around 67 per cent of firms in the beverage and wood sub-sectors confirmed that they organise in-firm training sessions. However, some industries, such as those that produce styropor (*polystyrene*) do not view training as important and therefore they do not organise training sessions at all. None of the firms interviewed had received any sort of training from universities or colleges, while EU agencies provide training only for firms that operate in the food industry (6 per cent).

Table 4.6. Training activities organised by subsectors

Type of training	Beverage		Food		Plastic		Metal		Wood		Ag-busin.		Styropor		Footwear		Total		
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
In-firm provision of training	67	33.3	50	50	100		50	50	66.7	33.3	100		100	50	50	53.1	46.9		
Industry-organized training programs	17	83.3	25	75		100	50	50	16.7	83.3	50	50	100	50	50	25	75		
Private training agencies		100	25	75		100	25	75		100		100		100		100	15.6	84.4	
Universities		100		100		100		100		100		100		100		100		100	
Technical training colleges		100		100		100		100		100		100		100		100		100	
EU funded training schemes		100	25	75		100		100		100		100		100		100	6.3	93.8	

Source: Survey 2013

4.7.6. Market environment

Part B of the questionnaire has covered questions related to the market environment and the opportunities that it may provide for the attainment of competitive advantage. This section covers topics such as the level of competition and the general business environment in which firms operate. It also covers factors that have helped firms in creating and sustaining their competitive advantage together with issues related to the business obstacles and other institutional barriers that firms face during their business activities. It was expected that by covering the above mentioned issues, it would be possible to identify factors that enable firms to gain a competitive advantage, i.e. whether firms use price, quality of products, cost, or marketing to gain their competitive advantage and in this way differentiate themselves from other firms.

Firms were asked first to identify their own main markets by indicating the average percentage of sales during the last three years (2010-2013) in local, national or international markets. From the total number of firms interviewed, only six of them reported selling their products in local markets. All other firms sell their goods mostly in the national market. From firms that sell in the local market, three of the six sell between 1 – 25% of their goods there, while the rest is sold either in the national or international market. It is obvious that majority of firms sell in the national market. From 32 firms interviewed, 31 of them sell in the national market, that is to say that 75 per cent of these firms sell between 76 – 100 per cent of their total products in the national market.

An important element in this section is related to exporting firms. From 32 firms interviewed, only one firm, which is predominantly owned by international investors, reported that 80 per cent of their goods are sold in the international market. There was one other firm which reported that half of the goods were exported. In sum, 63 per cent of firms interviewed export their products in the international markets. More specifically, 14 firms export between 1 – 25 per cent of their goods, which is 70 per cent of total exports. 5 firms export between 26 – 50 per cent of their goods, and as is indicated above, there is one firm which exports 80 per cent of its products in western European countries. An indicative distribution of the sample according to their share in the three markets is presented in the next Table 4.7.

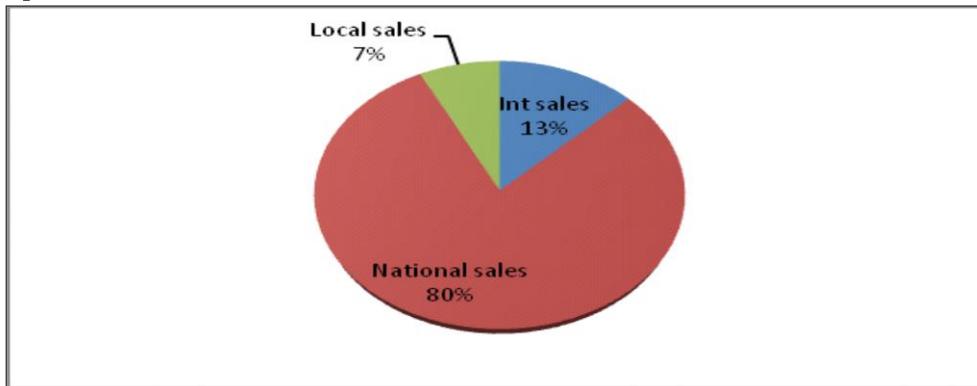
Table 4.7. Distribution of markets in terms of national, local and international component

% of sales in this market	Local/regional		National		International	
	Number of firms	%	Number of firms	%	Number of firms	%
1-25%	3	50	2	6.5	14	70
26-50	1	17	2	6.5	5	25
51-75	2	33	4	13	0	0
76-100	0		23	74	1	5
Total	6	100	31	100	20	100

Source: Survey 2013

Generally, in terms of total sales, 80 per cent of sales are done in national markets, 7 per cent in local markets, and 13 per cent are done in the international markets.

Figure 4.4. Distribution of firms in terms of markets



Source: Survey 2013

Firms were also asked about the types of customers, to whom they mostly sell, meaning whether they sell to large firms, small and medium sized firms, final consumers, or public sector. The majority of them sell to small and medium sized firms. In general terms, 40 per cent of them sell to SMEs, 37 per cent to large firms, and 22 per cent sell to final consumers, while none of them sell to the public sector. In terms of magnitude of sectors, those that sell to large firms, 45 per cent of them sell between 51 – 75 per cent of their products, while those that sell to SMEs around 70 per cent sell between 1 – 50 per cent of their products. An indicative distribution of the sample according to their share in the three above mentioned markets is presented in the next Table 4.8.

Table 4.8. Distribution of markets in terms of national, local and international component

% of sales in this market	Large firms		SME		Final consumers	
	Number of firms	%	Number of firms	%	Number of firms	%
1-25%	3	15	8	30	4	31
26-50	5	25	10	36	3	23
51-75	9	45	4	15	0	0
76-100	3	15	5	19	6	46

Source: Survey 2013

4.7.7. Factors that determine the nature of competition

Firms were also asked to identify factors that determine the nature of the market – price, quality, customer service, interpersonal relations, and marketing of new or significantly improved products. A competition that is based on quality is the main characteristic of the business environment. So, only 9 per cent of respondents perceive price as of little importance at all, while 34.4 per cent perceive price as important or very important factor. The mean of price is 3.25 from the maximum of 5. Quality is perceived as the most important determinant of the nature of the competition; that is, 79 per cent. The mean of quality is also quite high at 4.59. Customer service is also ranked highly as a determinant, since 70 per cent of respondents think that it is either important or very important determinant, with the mean at 4.38. On the other hand, marketing is ranked relatively low, with the lowest mean at 2.81 where only 15.6 per cent judged it important or very important and 26 per cent unimportant.

Table 4.9. Characteristics of Business Environment as perceived by firms

Characteristics of the business environment	Mean	Std. Dev.	% of firms that	
			Unimportant /of little important	Important/very important
Price competition is prevailing	3.25	0.88	9.00%	34.40%
Quality competition is prevailing	4.59	0.615	1.00%	79.00%
Customer service and interpersonal relations	4.38	0.833	3.00%	70.00%
Marketing of new or significantly improved products/services	2.81	1.12	26.00%	15.60%
Other (please specify)	0	0	0.00%	0.00%

Source: Survey 2013

Using the 1 to 5 Likert-scale, in the next question firms were asked to assess the impact of specific factors in creating and sustaining competitive advantage. More specifically, they were asked whether their competitive advantage rests on their capability to adapt products/services to the specific needs of different customers/market niches; their capability to offer customised products; or if their competitive advantage rests on their capability to differentiate themselves on cost. 31 out of 32 firms consider product/quality of the product as something hugely important to gain their competitive advantage in the market (90.9 per cent). 23 out of 32 firms responded that they consider customisation of products as the primary source of their competitive advantage (70.4 per cent), while only 42 per cent of firms consider that cost is their primary source of their competitive advantage.

Table 4.10. Factors affecting competitive advantage

Factors affecting competitive advantage	Mean	Std. Dev.	% of firms that responded	
			Impact / low impact	Significant or huge impact **
Capability to offer high quality product/services at a premium price	4.53	0.6	3.50%	90.90%
Capability to offer customised products	3.88	0.66	6.00%	70.04%
Capability to offer expected products/services at low cost	3.47	0.98	15.20%	42.40%

* Responses of 1 or 2 in a 1-5 Likert scale. ** Responses of 4 or 5 in a 1-5 Likert scale

Source: Survey 2013

By using the 1 – 5 Likert-scale, managers of the firms were also asked to indicate specific factors that mostly influenced the creation and sustaining of competitive advantage (innovation, alliances, and marketing). The results show that 46.9 per cent of managers indicate that the firm’s ability to offer novel products is either significant or hugely important. The most influential factor is considered alliances and partnerships, at 69.70 per cent. Marketing is seen to have the lowest impact on the competitive advantage, at only 15.60 per cent.

Table 4.11. Factors that indicate competitive advantage

Factors affecting competitive advantage	Mean	Std. Dev.	% of firms that responded	
			Impact / low impact	Significant or huge impact **
Capability to offer novel products	3.44	1.243	27.20%	46.90%
Establishment of alliances/partnerships with other firms	3.94	1.014	12.10%	69.70%
Marketing and promotion activities	2.69	0.931	48.50%	15.60%

* Responses of 1 or 2 in a 1-5 Likert scale. ** Responses of 4 or 5 in a 1-5 Likert scale

Source: Survey 2013

4.7.8. Evaluation of obstacles in the firm’s entrepreneurial activity

Based on a 1-5 Likert-scale, managers/owners of firms were asked to evaluate the extent to which specific factors have acted as obstacles to the firm’s growth and the expansion of their business activities.

At first sight, results show that firms generally are not significantly constrained by the business obstacles. In other words, the results reveal that the impact of obstacles is relatively mild, since the mean (average) of most of the obstacles is below 3. Going into more detail; 15.20 per cent of them reported that the sunk cost limit significantly or to a great extent significantly their growth. Another interesting finding is related to the difficulty to accessing the necessary funds to invest in their activities. Only one third of them view finance as significantly or greatly significant as an obstacle to their growth. This can be also illustrated by the mean, which from the maximum 5, is only 3.12. It is characteristic that interviewed managers see the market as an opportunity for growth. So, 65.6 per cent of them do not see, or see market demand at a lower extent as a constraint. Lack of marketing and management know-how is ranked as the least obstacle with a mean of 1.91. The highest obstacle indicated by them is recruiting people with the high and necessary education and skills. 56.2 per cent of firms consider this as significant or a greatly significant obstacle. On the other hand, firms do not consider keeping skilled people as any obstacle (mean 2.19). The majority of firms view competition as fairly free. In other words, 81.30 per cent of them view barriers of entry created by large companies and the market in general as almost non-existent. From all obstacles, this barrier has the lowest mean - 1.84.

Table 4.12. Obstacles to growth and expansion of business activities

Obstacles	Mean	Std. Dev.	% of firms that responded	
			Not at all/ low extent*	To significant / great extent**
Large sunk investment	2.69	0.965	45.50%	15.20%
Difficulty in finding the necessary funding for growth investments	3.12	1.008	21.90%	30.30%
Demand or market constraints	2.25	0.083	65.60%	6.10%
Marketing problems (i.e. lack of marketing and management know-how)	1.91	0.689	87.50%	3.10%
Lack of technological know-how	2.63	1.129	56.30%	25.10%
Difficulty in finding partners for technological collaboration (i.e. joint product production, technical assistance, etc.)	2.09	1.058	75.00%	12.10%
Difficulties in recruiting highly-skilled employees	3.72	1.301	18.80%	56.20%
Difficulty in keeping employees with technical skills	2.19	1.091	71.90%	15.10%
Competition and barriers of entry created by large companies (i.e. MNEs)	1.84	1.322	81.30%	15.20%
Other (please specify)	0	0	0.00%	0.00%

* Responses of 1 or 2 in a 1-5 Likert scale. ** Responses of 4 or 5 in a 1-5 Likert scale

Source: Survey 2013

By using the same line of logic, managers have been asked to estimate on a 1-5 point Likert-scale other business obstacles, namely, the institutional and regulatory barriers. The first impression gained is that the impact of these barriers is also rather mild. This is explained specifically by the calculated means, where most of them are below 3. From all the variables, the most striking ones are those related to the high tax rates and level of corruption. The high tax rates were ranked as the most important barrier, as 53.2% of the firms responded with a 4 or 5 (serious or very serious barrier). From all barrier variables included, level of corruption is seen to be the highest barrier - as 65.5 per cent as important barriers by 44% of the firms. The level of corruption also has the highest mean – 3.78.

Table 4.13. Obstacles to growth and expansion of business activities

Barriers	Mean	Std. Dev.	% of firms that responded	
			No barriers/some*	Serious/very serious barriers**
High tax rates	3.52	1.44	9.00%	53.2% %
Time consuming regulatory requirements for issuing permits and licenses	3.11	1.53	72.70%	9.10%
Rigid labour market legislation	2.98	1.47	66.70%	9.40%
Government officials favour well connected individuals	2.7	1.56	75.70%	9.40%
Poorly enforced competition law to curb monopolistic practices	2.64	1.5	33.30%	25.20%
Bankruptcy legislation makes immense the cost of failure	2.41	1.47	87.90%	9.40%
High level of corruption	3.78	1.289	24.20%	65.60%
Poorly enforced property rights. copyright and patent protection	2.33	1.39	66.70%	28.20%
Other (please specify)	2.14	1.29	0.00%	0.00%

* Responses of 1 or 2 in a 1-5 Likert scale. ** Responses of 4 or 5 in a 1-5 Likert scale

Source: Survey 2013

4.7.9. Data on tangible assets: physical and financial

The survey also included a more straightforward question that aimed to identify the investment in physical technology, more particularly production technology, information technology, or any other technology in general. Results show that 91.8 per cent of firms purchased production technology during the last three years, 46,9 per cent of them invested in information technology as well.

Table 4.14. Investment in last three years in technology

Investment in technology	% of firms that responded	
	Yes	No %
In over the past three years, has the firm invested in Technology	94	6
In over the past three years, has the firm invested in Information technology	47	53
In over the past three years, has the firm invested in other technology	0	100

Source: Survey 2013

It is also important to know how the purchased technology was financed. Table 4.15 below shows that purchased technology was primarily funded by firms themselves. More particularly, the majority of them answered that they used internal resources (97 per cent) to purchase their technology, while 63 per cent of them use external funds (loans) as well to purchase their technology. Six per cent of interviewed firms received funds from EU funds dedicated for the country, while only 3 per cent of them received loans from government funds.

Table 4.15. Sources of investment funds

Source of funding	Yes %	No %
Internal resources	97	3
Funding from family member		100
Funding from previous employer (corporate venturing, university incubator technology transfer)	0	100
Venture capital		100
Funding from a bank	63	37
Public funding from national government or local authorities (programs supporting entrepreneurship, etc.) - loan	3	97
Public funding from national government or local authorities (programs supporting entrepreneurship, etc.) - grant	0	100
European Union funds (programs supporting SMEs, etc.)	6	94
Other sources	0	0

Source: Survey 2013

From 32 firms, 3 of them exclusively used bank loans to purchase their technology, while 10 out of 32 firms exclusively used internal funds to purchase their technology. An important source of funding is bank loans. As it is set out in the above Table 4.15, bank loans have been the source of funding for 63 per cent of firms. More details on the percentage of internal, bank, and other funding are given in the Table 4.16 below.

Table 4.16. Source of funding in percentages

Source of funding	Internal resource percentages			
	1-25*	26-49	50-74	75-100
Internal resources	12.00%	21.20%	27.30%	33.30%
Funding from a bank	3.00%	20.00%	50.00%	25.00%
Public funding from national government or local authorities (programs supporting entrepreneurship, etc.) - loan	4.00%			
European Union funds (programs supporting SMEs, etc.)			50.00%	50.00%

Source: Survey 2013

4.7.10. Data on organisational capabilities - entrepreneurship and innovation

This section of the questionnaire aims to investigate a firm’s capacity to coordinate, put into productive use, and shape, inputs into innovative outputs (Collis, 1994). More specifically the aim of this section is to investigate whether firms have introduced new or significantly new products or services, new working methods, logistics, supply chain, delivery or distribution methods, and supporting activities for processes such as maintenance systems or operations for purchasing, accounting, or computing. Finally they were asked whether in the last three years they have improved knowledge management systems or implemented any other change in the managing structure.

The product or service innovation involves the introduction into the market of new or significantly improved products, and a new product is the one which has technological characteristics or its intended uses differ significantly from those that are active in the market. In regards to improved product(s), it is meant for products whose performance has been significantly enhanced or updated.

The results show that 71.88 per cent of firms have introduced some new or significantly improved goods or services during the last three years, while 28.13 per cent of them have not reported any kind of innovative activity related to specific products or services.

In terms of newness to the type of the market, 66.7 per cent of new products and services were primarily new to the firm, namely that the new products or services have been available from other competitors in the market. 30.3 per cent of the firms stated that their innovative products were new to the market, specifically to the national market, meaning that the products were launched in the specific market before competitors but they may have already been available in other markets as well.

Figure 4.5. Introduction of new products

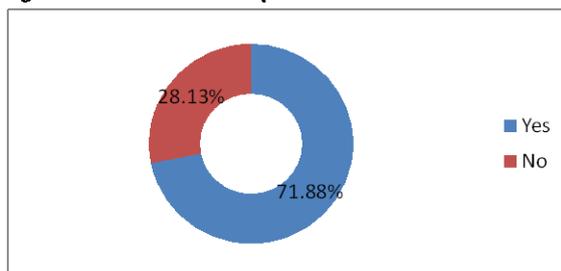
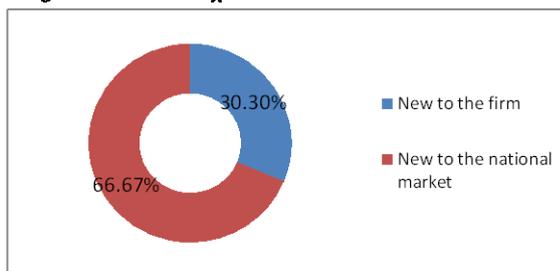


Figure 4.6 Innovation type



Source: Survey 2013

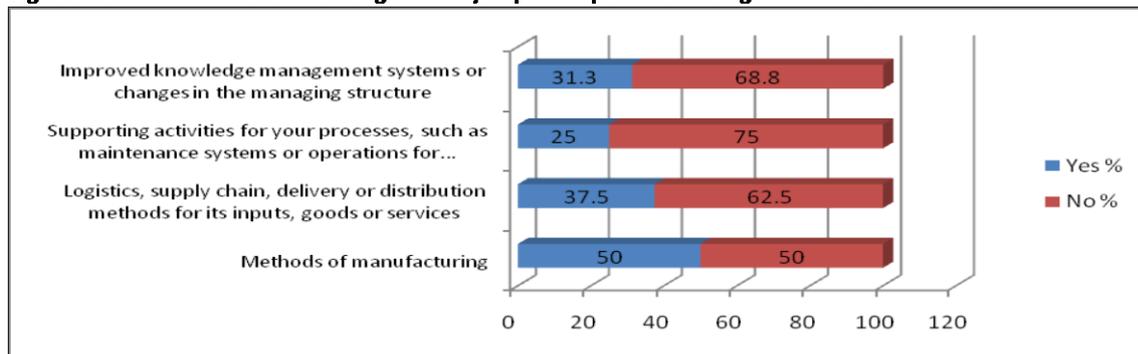
Specific questions were asked about process innovations which involve all those new or significantly improved production and delivery methods and other additional support activities aimed at decreasing unit costs or increasing product quality. In other words, organisational innovations primarily have to do with the application of those new or significant changes in terms of structure of the firm, as well as implementation of new management methods aimed to improve the in-house use of knowledge, the quality of goods and services, or the efficiency of work flows in general.

Figure 4.7 below presents the share of firms that have (blue bar) or have not (red bar) implemented specific sorts of process and organizational innovations. The findings show that half of the surveyed

firms have introduced new or significantly improved manufacturing methods, while approximately 31.3 per cent of firms have introduced new or significantly improved knowledge management systems or changes in the managing structure. 25 per cent of firms have introduced supporting process activities (such as maintenance systems or operations for purchasing, accounting, or computing). Changes in supply chain and distribution activities have been commenced by 37.5 per cent of firms.

Figure 4.7 below presents the share of firms that have (blue bar) or have not (red bar) implemented specific sorts of process and organizational innovations. The findings show that half of the surveyed firms have introduced new or significantly improved manufacturing methods, while approximately 31.3 per cent of firms have introduced new or significantly improved knowledge management systems or changes in the managing structure. 25 per cent of firms have introduced supporting process activities (such as maintenance systems or operations for purchasing, accounting, or computing). Changes in supply chain and distribution activities have been commenced by 37.5 per cent of firms.

Figure 4.7. Introduction of new or significantly improved process and organizational innovations



Source: Survey 2013

Based on a 5 point Likert-scale, one part of the questionnaire was designed to ask firms to identify the specific sources of knowledge they use to explore new business opportunities. The aim of this question was to identify and evaluate how significant the linkages are in the process of innovation processes. All links put in the questionnaire connect the firm to other actors in the innovation system (e.g. universities, competitors, suppliers, customers). The sources of knowledge generation may be internal (in-house R&D), or external market and commercial sources (competitors, suppliers, clients and commercial laboratories), public sector sources (universities, public research institutes, publicly funded research programmes) and general information sources (trade fairs, conferences, publications).

Table 4.17. Sources of knowledge for exploring new business opportunities

	Mean	Std. Dev.	% of firms that responded Not (that) important*	% of firms that responded Important /very important**
Clients or customers	3.28	1.68	18.2	34.2
Suppliers	1.63	0.75	90.7	9.3
In-house (know how. R&D laboratories in your firm)	1.25	0.984	46.9	25
Competitors	2.84	1.221	46.9	25
Trade fairs, conferences and exhibitions	3.03	1.47	43.8	43.8
Scientific journals and other trade or technical publications	2.22	1.408	54.7	24.9
Universities	1.06	3.54	96.1	3.1
Public research institutes	1.13	0.707	96.9	3.1
External commercial labs/R&D firms/technical institutes	1.03	1.77	96.9	3.1

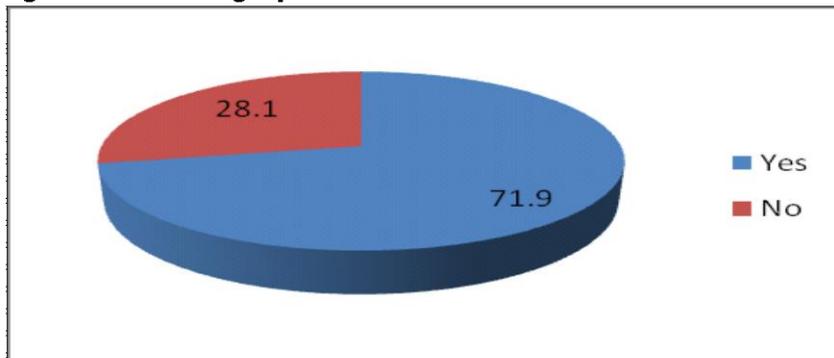
* Responses of 1 or 2 in a 1-5 Likert scale. ** Responses of 4 or 5 in a 1-5 Likert scale

Source: Survey 2013

As it is shown in the Table 4.17 above, for the interviewed firms, customers represent the most important source of knowledge. More than 34 per cent of respondents answered with either value 4 or 5 in the specific item, with the greatest mean of 3.28. The second most important source of knowledge is exhibitions with the mean of 3.03. The following important source of knowledge is competitors with a mean at 2.84, and scientific journals and other trade or technical publications with a mean of 2.22.

Risk-taking is considered to be one of the constituent elements of corporate entrepreneurship capability. This capability is linked with the ability of the firms to use resources effectively, exploiting new opportunities, and specifically launch projects with uncertain outcomes and tentative projected returns on investment (Scheepers, Hough and Bloom, 2008). In regards to this, the majority of firms, that is, 71.9 per cent of them reported that they had introduced new products, services, or processes which turned out to be unsuccessful over the past three years. This shows that the majority of firms have shown signs of risk taking.

Figure 4.8. Risk taking capabilities of interviewed firms



Source: Survey 2013

4.7.11. Dynamic capabilities of firms

This section primarily aims to identify the ways in which firms sense and seize opportunities, the sources of knowledge they use to explore these opportunities and the formal or informal mechanisms they use to achieve the best business results.

In the following part of the questionnaire firms were asked to respond as to whether they agree or disagree with 11 specific statements related to the sensing and seizing of opportunities mostly in their internal environment

Table 4.18. Sensing and Seizing Opportunities

	Mean	Std. Dev.	% of firms that responded	
			Disagree/strongly disagree	Agree or strongly agree
We change our practices based on customer feedback	3.78		35.5	62.5
Our firm responds rapidly to competitive moves	3.66	0.92	44.8	56.3
Our firm actively observes and adopts the best practices in our sector	3.99	0.818	32.2	68.8
We quickly understand new opportunities to better serve our customers	3.72	0.924	9.3	68.7
Our firm regularly considers the consequences of changing market demand in terms of new products and services	3.47	0.718	53.2	46.9
Our firm is quick to recognize shifts in our market (e.g. competition, regulation, demography)	3.63	0.707	37.6	62.6
There is a formal R&D department in our firm	1.06	2.46	93.8	6.3
There is a formal engineering and technical studies department in our firm	1.03	0.177	96.9	3.1
Design activity is important in introducing new products/services to the market	2.81	1.595	40.6	40.7
We implement systematic internal and external personnel training	2.84	1.394	40.7	28.2
Employees share practical experiences on a frequent basis	3.88	1.04	9.4	68.8

Source: Survey 2013

The findings demonstrate that respondents have evaluated their performance rather generously, as 55% of the firms have agreed/strongly agreed on 6 items out of the 11 stated on the questionnaire. On the question of whether firms actively observe and adopt the best practices in their sector, this is ranked first with the mean of 3.99, followed by employees share practical experiences on a frequent basis with a mean of 3.88, along with changing practices based on customer feedback with a mean of 3.78. The item on understanding of new opportunities in order to better serve customers was ranked equally highly (3.72). These types of organisational capabilities are related with identifying market opportunities and to the firm’s capability to stay in touch with its client base. As mentioned above, almost 70 per cent of firms responded that their employees share practical experiences. This is seen to be among the first capabilities that relate to human capital, covering internal characteristics of the firm (Caloghirou *et al.*, 2011). At the other end of the spectrum, two of the items (there is a formal R&D department in our firm, and there is a formal engineering and technical studies department in our firm) have the highest negative score, meaning that firms do not have any formal R&D or any other engineering department within their structure.

4.7.12. Networking capabilities of firms

A very important part of the organisational capabilities is related to creating business networking. In this section, interviewed firms were asked to evaluate how much the networks created help them to improve their operations and above all to gain competitive advantage in the market. The aim of this section was to figure out the importance of interpersonal and inter-organizational relationships to specific operations of the company. It is being considered that these relationships serve as the media through which managers of firms may gain access on a variety of resources, including market trends, market change, demand change, etc. (Caloghirou *et al.*, 2011).

Undoubtedly the most important outcome of the networking variable is the capability of firms to create lasting relationship with customers, and also with other stakeholders such as suppliers, banks, the capability to recruit skilled labour, tax authorities, etc. The ultimate intention of any networking capability should be to increase the client base. Therefore, business networks are helping mainly in that direction. These types of activities are better undertaken when the information asymmetry that is included in such transactions is reduced (Caloghirou *et al.*, 2011). For instance, firms need to acquire precise and reliable information on possible suppliers and their advantages, rather than testing in practise their capability to deliver (Caloghirou *et al.*, 2011). All sorts of information that firms can have from their networks is considered to be relevant in developing strategic plans.

Table 4.19. Contribution of the networks to various activities

	Mean	Std. Dev.	% of firms that responded Not (that) important*	Important /very important**
Selecting suppliers	4.22	0.975	25.1	75
Recruiting skilled labour	3.31	0.965	40.6	59.4
Collecting information about competitors	3.44	0.84	9.4	40.6
Accessing distribution channels	4.03	0.861	24.9	77.2
Assistance in obtaining business loans/attracting funds	3.97	1.121	12.5	71.9
Advertising and promotion	2.84	1.247	43.8	25
Developing new products	3.31	1.203	31.3	53.1
Managing production and operations	4.13	7.93	12.6	87.6
Assistance in arranging taxation or other legal issues	3.31	1.091	15.7	34.2
Exploring export opportunities	3.34	1.45	31.2	53.1

* Responses of 1 or 2 in a 1-5 Likert scale. ** Responses of 4 or 5 in a 1-5 Likert scale

Source: Survey 2013

From ten items linked to networking capabilities, three of them were ranked quite highly: selecting suppliers – 75 per cent and with a mean of 4.22, managing production operations – 87.6 per cent and with a mean of 4.13, accessing distribution channels is seen as very important – 77.2 per cent and with a mean of 4.03, and finally the networking capability to obtain loans is evaluated quite highly as well – 71.9 per cent and with a mean of 3.97. The highest score was given to managing production and operations. This can be explained by the fact that most of firms are new in the production sector and therefore good networks with other partners such as those they purchase the technology from, and that provide further assistance in the production process is seen as very crucial. On the other hand, networking variables such as exploring export opportunities do not seem very helpful to firms. This may be explained by the fact that majority of firms are not exporting their products. While in relation to the exporting variable one could argue that it is not so easy to create international networking. The variable on finance can be explained by arguing that any networking in getting better access on external loans is crucial for firms. In the section where sources of funding were discussed, the findings show that 74 per cent of firms finance their projects from bank sources. It was argued by many interviewed managers, obtaining a loan from the bank is not such a simple and easy process. The lowest ranked variables in terms of mean/average are those related to advertising and promotion (2.84), recruiting skilled labour, developing new products, and assistance in arranging taxation or other legal issues (3.31), and exploring export opportunities (3.34).

4.7.13. Marketing capabilities of firms

Marketing capabilities are seen as being as an important driver in achieving superior performance (Day, 1994). According to Kotler (2004) when firms develop adequate marketing capabilities, the

benefit is multi-fold. Good marketing strategies enable firms to find and select markets, find out distribution channels, how to position their products in terms of prices relative to their competitors, what type of advertising channels to use, what kind of branding strategy to implement, etc.

Two out of 32 firms have formal marketing departments in their organisational structure. That probably explains why most of the means related to marketing activities are below 3. The results show that from 29 variables, only four of them have been ranked with the mean from 3 to 3.38. This illustrates the fact that firm marketing capabilities in low income countries like Kosovo are underdeveloped, or to a great extent are neglected by firm managers.

Table 4.20. Contribution of marketing to growth as perceived by owner/managers

	Mean	Std. Dev.	% of firms that responded	
			Not (that) important*	Important /very important**
Planning flexibility				
If a shift in customer needs and preferences occurs, we can easily change our strategic plan	2.75	1.078	78.2	21.9
Our company can easily change its strategic plan if a new technology emerges.	2.44	1.435	55.4	21.9
If shifts in economic conditions occur, we can easily change our strategic plan.	2.28	1.224	65.7	18.8
If a new opportunity emerges, we can easily change our strategic plan	2.47	1.344	55.3	17.8
If an unexpected threat arises, we can easily change our strategic plan	2.25	1.244	62.5	12.5
Marketing implementation				
Translating marketing strategies into action	2.66	1.153	56.3	17.8
Executing marketing strategies quickly	2.41	1.341	65.6	21.9
Monitoring marketing performance	1.97	1.332	71.9	18.8
Product development				
Ability to develop new products/services adapted to customer needs	2.91	0.995	37.5	21.9
Successfully launching new products/services	2.88	1.07	40.7	25
Ability to develop better products than the competition	2.59	1.241	43.8	18.8
Service responsiveness				
Ability to provide rapid response to clients	3.16	0.987	28.1	31.3
Superior levels of service customization	2.97	1.15	34.4	28.1
Rapid response to customer complaints	2.75	1.191	40.6	18.8
Pricing				
Using pricing skills and systems to respond quickly to market change	2.16	1.051	75	9.4
Knowledge of competitors' pricing tactics	2.03	1.15	71.9	9.4
Monitoring competitors' pricing and pricing changes	2	1.295	75	18.8
Marketing communication				
Sales management skills	2.63	1.338	62.5	21.9
Giving the salespeople the training they need to be effective	2.19	1.355	75	18.8
Providing effective sales support to the sales force	2.03	1.356	75	18.8
Developing and executing advertising programs	1.94	1.318	73.1	18.8
Customer performance				
Customer satisfaction	3.38	0.942	6*	37.5
Customer loyalty/retention	3.03	1.062	37.5	25
Added value provided to customers	2.56	0.948	65.6	12.5
Adaptation to customer preferences	3	0.916	31.3	21.9
Improved communication with customers	2.63	1.07	56.3	21.9
Reduction in the number of customer complaints	2.56	1.134	68.8	18.8
Improved customers' perceived image of the firm	2.78	0.975	46.9	21.9
Retained most-valued customers	2.56	1.162	59.1	15.6

Source: Survey 2013

4.7.14. Teamwork capabilities of firms

For many authors, such as Nonaka and Takeuchi, (1995), teamwork represents a very relevant variable which enables firms to attain competitive advantage. Teamwork may have influence on socialising the workforce within the organisation in a way that would be difficult for other firms to imitate. As Penrose (1959) once said, an organisational team represents more than a collection of individuals, and moreover teamwork represents a collection of individuals who have experience in

working together. Barney (1995) characterises teamwork as something idiosyncratically creative, the imitation of which is difficult, and therefore teamwork may be one of the causally ambiguous sources of heterogeneity that helps create firms a sustained competitive advantage.

One of the questions asked to firms during the interview was whether teamwork is something with is generally applied by firms, whether it applies entirely, partially, or it is not applied at all. As is shown in the Table 4.21 below, 44 per cent of firms responded that they apply the teamwork in general, 40 per cent of them apply the teamwork entirely, while around 16 per cent apply it partially.

In terms of the size of the team, the most characteristic size is between 3 – 5, with 48.5 per cent, followed by 1 – 3 with 30.3 per cent. In answer to the question of whether teams are organised on an autonomous basis, 68.8 per cent of respondents responded positively, while 31.3 responded negatively. In the question related to how much teams are expected independently to take decisions on their own, the vast majority of firms (90.6 per cent) responded that teams are responsible for their results, but at the same time are reviewed from outside.

Table 4.21. Contribution of teamwork capabilities to growth as perceived by owners/managers

	Frequency	Valid Per cent
Applies entirely	13	40.6
Generally applies	14	43.8
Partially applies	5	15.6
Total	32	100

Source: Survey 2013

4.7.15. Data on management practices as specific-firm capabilities

This part of the survey investigates whether management practices explain differences in performance of firms operating in developing countries. As previously stated, the research conducted in developed and developing economies suggests that management quality plays a significant role in the performance of firms. In their study Bloom and Van Reenen (2011a) found that there is a large difference in management practices across firms as well as across countries, and that management quality is strongly associated with firm-level productivity and other performance measures such as profitability and survival rates. These studies explain that differences are more expressed between firms in the same country than across countries, suggesting that firm and sector specific factors were at least as important as the general business environment in the firm performance. Furthermore, empirical evidence indicates that differences in the management practices are correlated with competition, labour market flexibility, education, ownership structure, etc. (Friebel and Schweiger, 2012; Bloom et al., 2011).

The collection of data was conducted through face-to-face interviews with firm managers and in some other cases with firm owners. The structure of the questionnaire was based on the Bloom and Van Reenen (2010) methodology. Concepts used by them of “good” and “bad” management practices were adapted in terms of impact on firm growth, which at the same time needed to be translated into a measure applicable to different firms across the manufacturing sectors. It is worth pointing out that the focus was given to practices that are considered as clearly “good” or clearly “bad” in terms of firm productivity, regardless of the environment a particular firm is in. Such “good

and bad” management involves practices such as monitoring production to identify and fix repeated problems, making promotion decisions based on employees’ performance (rather than, for example using other criteria which are not based on the work such as family connections), or retraining or moving incompetent employees, rather than leaving them in their current positions.

As is the case with the model proposed by Bloom and Van Reenen (2010), all management practices were grouped into four areas: operations, monitoring, targets, and incentives. The questions related to operations were focused primarily on how the firm handles a process problem, such as for instance a machinery breakdown. Questions related to monitoring covered issues such as collection, monitoring, revision and use of production performance indicators. The targets questions were focused on the time-scale of production targets. Finally, the incentive questions covered processes in relation to promotion criteria, practices for addressing poor employee performance, and rewarding production target achievements. The questions used for each management practice and the scoring that were assigned to answers are listed in Appendix E.

4.7.16. Summary statistics on management practices

In this section summary statistics for the firms that have participated in the survey are discussed. The overall management scores are analysed based on four areas: operation, monitoring, targeting and incentives.

In area of operation, managers were asked whether during the last three years the firm has introduced any modern manufacturing technique including just-in-time delivery from suppliers, automation, flexible manpower, support systems, attitudes and behaviour. The majority of answers (81.8 per cent) were close to the score 1, and with an average score at 1.38. This can be explained probably by the fact that firms in developing countries still are not part of the global value chain. In the question on what was the reason they have introduced any new manufacturing technique at all, the typical answer was either because other firms have done the same, or because they wanted to reduce costs. With regard to the questions on how firms track problems, such as the way firms deal with process improvement, i.e. whether process improvements are made only when problems arise, or are they actively sought out for continuous improvement as part of a normal business processes, the answer for this question was scored on average by 2.25. That means that the process improvements take place only when problems occur. Managers answered that in most of the cases problems are not documented physically and the results of the tracking process are not maintained physically.

Table 4.22. Management practices – operational area

	Mean	Std. Dev.	% of firms that responded		
			Score 1	Score 3	Score 5
Introduction of modern manufacturing techniques	1.38	0.942	81.8	12.5	3.1
Rational for introduction of modern manufacturing techniques	2.94	1.48	28.1	46.9	25
Process problem documentation	2.25	1.589	56.3	25	18.8
Total	2.19		55	28.13	15.63

Source: Survey 2013

Monitoring is seen as an important tool used by managers to track, review, and communicate performance to the workforce. It is crucial for firms to create internal processes and procedures which regulate all these practices. It is quite intriguing that on the first question as to whether tracking is ad hoc and incomplete, or whether performance is continually tracked and communicated to all staff, the majority of firms selected the first score, which indicates that tracking is done on an ad-hoc basis and that there are processes which are not tracked at all. That is illustrated by the mean which was scored 1. The opposite side of this score notes that modern management practices on a continuous basis track and communicate the firm performance, and this is done on a formal and informal basis to all staff members by using a range of visual management tools.

The question on the way managers review the performance of the workforce was scored with 2.31. This means firms review the performance infrequently, typically when a success or failure is spotted or performance is reviewed periodically but without a clear follow-up plan for adaptation. The modern models of performance require performance reviews on a continuous basis. Based on clear indicators, the results are communicated to all staff members, with the ultimate aim to ensure continuous improvement. On the question of how managers give performance feedback to their workforce, the results in the Table 4.23 below show that the feedback on performance is either not given at all or conversations overly focus on data that is not meaningful. The modern monitoring models provide regular review/performance conversations, focused on problem solving. They aim to address root causes, and above all the review and feedback is an opportunity for constructive feedback and coaching purposes. The average score for this question is 2.13.

Managers were also asked how they deal with potential consequences which occur after the performance review. The average score is 2.81, indicating that failure to achieve agreed results is tolerated for a period before action is taken. The final question on monitoring practices aimed to identify how well firms formulate performance measures and whether measures are clearly communicated and understood by the workforce. The average score of 2.06 indicates that performance measures are ill-defined, complex and not clearly understood by those that are evaluated. Also the individual performance is not made public. This is the opposite of best management practices which ensure that performance measures are well-defined, easy to be understood, clearly communicated, and above all the performance is made public with the aim to induce a constructive competition.

Table 4.23. Management practices – monitoring area

	Mean	Std. Dev.	% of firms that responded		
			Score 1	Score 3	Score 5
Is tracking ad hoc and incomplete, or continually tracked and communicated to all staff?	2.19	1.512	62.5	28.1	9.4
Is performance reviewed, or continually with an expectation of continuous improvement?	2.31	1.306	43.8	43.8	12.5
In review/performance conversations, to what extent is the purpose, data, agenda, and follow-up steps (like coaching) clear to all parties?	2.13	1.238	53.1	40.6	6.3
Does failure to achieve agreed objectives carry consequences, or reassignment to other jobs?	2.81	1.176	9.4	78.1	12.5
Are performance measures ill-defined, or well-defined, clearly communicated, and made public?	2.06	1.343	59.4	34.4	6.3
Total:	2.3	1.315	45.64	45	9.4

Source: Survey 2013

The average scores related to the area of **targets** are not different to previously analysed areas. On the first question of whether management sets up exclusively financial/operational targets, or targets are balanced with other non-financial targets, around 68 per cent of respondents answered that targets are predominantly based on accounting and financial figures. The average score was relatively low – 1.94. The Second question covered issues of how well targets are interconnected between upper and lower levels in the firm and whether targets are interconnected to the individual performance. This is probably the lowest average score – 1.31. Answers on the third question are more skewed to the score 3 (with the mean 2.75) which notes that there are short and long term goals for all units and not necessarily linked to each other. The final question has the average score of 2.94, meaning that management of firms that took part in the survey set up targets based on solid economic rational, but at the same time there are few of so called “sacred cows” that are not held to the same rigorous standard.

Table 4.24. Management practices – targeting area

	Mean	Std. Dev.	% of firms that responded		
			Score 1	Score 3	Score 5
Goals exclusively financial, or is there a balance of financial and non-financial targets	1.94	1.523	68.8	15.6	15.6
Are goals based on accounting value, or are they based on shareholder value?	1.31	0.896	87.5	9.4	3.1
Focus mainly on the short term, or on long-term goals?	2.75	1.666	40.6	31.3	28.1
Are goals too easy to achieve, or are goals demanding but attainable for all parts of the firm?	2.94	1.795	40.6	21.9	37.5
Total	2.24	1.47	59.37	19.55	21.1

Source: Survey 2013

The final area of management practices is related to incentives. The aim of this section of the questionnaire was to investigate the practices that deal with good and poor performers, whether poor performers are helped to reach the expected level of performance, on what basis people are promoted, etc. It is rather surprising that comparing to other management practices; three out of five practices are scored with the mean of greater than 3. The only practice marked with the mean below 2 is the one related to how firms reward high performers. In most of the cases, firms do not possess formal procedures in terms of how well a performer is rewarded.

Table 4.25. Management practices – incentive area

	Mean	Std. Dev.	% of firms that responded		
			Score 1	Score 3	Score 5
Are people in the firm rewarded equally irrespective of performance level, or based on performance?	1.81	0.998	59.4	40.6	0
Are poor performers rarely removed, or retrained, moved into different roles?	2.88	1.176	21.9	65.6	12.5
Are people promoted based on tenure, or firm actively identifies, develops and promote its top performers?	3.38	0.871	6.3	81.3	12.5
Do competitors offer stronger reasons for talented people to join their companies, or does firm provides reasons to encourage talented people to join?	3.19	7.8	3.1	84.4	12.5
Does the firm do little to retain top talent, or whatever it takes to retain top talent when they look likely to leave?	3.06	1.076	12.5	71.9	15.6
Total	2.86		20.64	68.76	10.62

Source: Survey 2013

4.7.17. Comparing management practices in Kosovo with other countries

As it was documented in Bloom *et al* (2012), the empirical findings about management practices in many developed as well as developing countries hold for transition countries like Kosovo as well. Table 4.26 below presents the average management practice scores across countries. The findings

indicate that the highest management practices scores, on average, were identified in the United States followed by Germany and Japan. From developed countries, Greece and Portugal are at the bottom of the rankings, along with China and India as developing countries. For ease of comparison, overall management scores are separated into three broad categories: monitoring, targets, and incentives. Kosovo as a developing country stands far behind other countries in terms of monitoring and targeting management practices, while it stands higher in terms of management incentives than some developed and developing countries. The incentives dimension is better ranked in the US, which is followed by Canada and Germany. It is worth mentioning that management incentive practices are ranked higher in some other developing countries as well, such as India and China, than other management practices. In Kosovo the management incentive score is 2.86, on average, which is higher than China, India, or Greece. One explanation could be that developing countries probably have lighter labour market regulations (as it is the case with the United States) something that makes it easier on the one hand to remove poor performers and on the other hand to reward high performers. Findings show that in developed countries (US, Germany, Japan, UK, Sweden, etc.) there is more resemblance on the distribution of scores. Another key finding is that China for instance has a more compressed distribution of scores, something which resembles Kosovo's scores. This can be explained based on the evidence that firms in China (in Kosovo as well) are very young and in this way there is less variation in managerial practices among firms.

Table 4.26. Management practice scores across countries

Countries	Overall Management	Monitoring Management	Targets Management	Incentives Management
Argentina	2.76	3.08	2.67	2.56
Australia	3.02	3.27	3.02	2.75
Brazil	2.71	3.06	2.69	2.55
Canada	3.17	3.54	3.07	2.94
Chile	2.83	3.14	2.72	2.67
China	2.71	2.9	2.62	2.69
France	3.02	3.41	2.95	2.73
Germany	3.23	3.57	3.21	2.98
Greece	2.73	2.97	2.65	2.58
India	2.67	2.91	2.66	2.63
Italy	3.02	3.25	3.09	2.76
Japan	3.23	3.5	3.34	2.92
Mexico	2.92	3.29	2.89	2.71
New Zealand	2.93	3.18	2.96	2.63
Poland	2.9	3.12	2.94	2.83
Portugal	2.87	3.27	2.83	2.59
Republic of Ireland	2.89	3.14	2.81	2.79
Sweden	3.2	3.63	3.18	2.83
UK	3.02	3.32	2.97	2.85
US	3.35	3.57	3.25	3.25
Kosovo	2.47	2.3	2.24	2.86
Avarage	2.99	3.28	2.94	2.82

Note: figures are taken from the paper: Management Practices across Firms and Countries – Bloom et al 2011.

Figures on Kosovo are taken from the survey conducted in 2013.

As was mentioned in the section of theoretical framework, firms in Kosovo are deficient not only in terms of market demand and business environment factors, but also in terms of organisational

factors such management practices. This is illustrated by the evidence found in this survey where the average score for comparator countries is 2.99, while for Kosovo it is 2.47. The difference is higher with monitoring and targeting managerial practices, rather than incentive practices.

4.8. Data on economic performance

In this section of the survey, managers of firms were asked to provide some basic figures and trends about their recent market performance in terms of sales, and assets. It is interesting to mention that from 32 firms interviewed, only 2 of them reported a decrease in terms of sales, while 30 of them, that is, 94 percent of them have reported an increase during the last three years, despite the economic crises in recent years. This may be explained by the fact that due to the lack of financial markets, firms operating in low income countries are less exposed to those factors related to the financial crisis. As is shown in the Table 4.27, 53.1 per cent of interviewed firms had an increase of greater than 20 per cent (in terms of sales, on average).

Table 4.27. Average increase/ decrease of sales during 2011-2013

	Frequency	Per cent
Increase from 0 to 4%	3	9.4
Slight increase from 5 to 9%	1	3.1
Significant increase 10 to 19%	9	28.1
Very significant increase >20%	17	53.1
Very significant decrease >20%	2	6.3
Total	32	100

Source: Survey 2013

As far as subsectors are concerned, it could be said that there are no significant differences. In the subsector of beverages, half of them had increased sales by over 20 per cent, while 17 per cent had the opposite trend. In the food subsector, 63 per cent of interviewed firms had an increase in sales from 10 to 19 per cent.

Table 4.28. Average increase/ decrease of sales during 2010-2013 (sectorial results)

	Decrease				Increase				TOTAL
	>20%	10 to 19%	5 to 9%	0 to 4%	0 to 4%	5 to 9%	10 to 19%	>20%	
Beverage	-17				33			50	67
Metal	-25				50			25	50
Plastic								100	100
Agribusiness							100		100
Wood						17		83	100
Styropor							100		100
Food							63	38	100
Shoes								100	100

Source: Survey 2013

4.9. Empirical results on resources (inputs)

As indicated above, the aim of this chapter is to investigate factors that differentiate high-growing firms from other group of firms. The main criterion for separation is the volume of sales. In the group of high-growing firms are included those with average annualised growth in sales greater than

20 per cent per annum, over a three year period. The other group of firms consists of firms which either do not grow, or even may have had a decrease in volume of sales (as it is the case with a few firms in the sample).

With the aim of selecting the subset of elementary measures which distinguish between high-growing firms and other firms, the analysis is conducted by using the Mann-Whitney U Test. This nonparametric statistical technique enables detection of variables that make a difference between the two groups. Appendix F provides a full list of the examined variables. The list illustrates variables which are found to be statistically significant from those that are less statistically significant. In total, there are 34 indicators which were found to be statistically significant ($p < 0.1$) and thus were found to indicate the greatest differences between two groups of firms. In addition, aiming at investigating which variables can predict the likelihood that firms would report that they had sales growth; a binary logistic regression was used. Logistic regression enables assessment of how well explanatory variables predict or explain the categorical variable, in this case high-growing firms versus the other group of firms.

4.9.1. The Mann-Witney U test results

Intending to explore what differentiates high-growth firms from other firms, 2-independent test the Mann-Whitney U test was conducted. The test revealed that from resources (inputs), technology (new equipment) does not play any role in the differentiation of firms. On the question of whether they have invested in new technology over the last three years, 94 per cent of them responded positively. Therefore, it can be inferred that new technology purchased does not represent any differentiating factor, since the ability to acquire new equipment is evenly distributed throughout firms. From input components, only human capital resources represent a differentiating factor. From human capital variables used in this survey, three of them turned out to be statistically significant, namely last occupation of founder, number of employees with university degrees, and training provided within the firm. The In-firm training variable is statistically the most robust component, illustrated through p value ($p < 0.015$), as well as the effect size ($r^2 = 0.43$).⁵³ The next most statistically significant variable is the occupation of founders' before the firm was established ($p < 0.03$; $r^2 = 0.38$), and then a moderately statistically significant variable is the number of workers with university degrees that are employed ($p < 0.10$; $r^2 = 0.29$). With regard to occupation, managers were asked to provide information about the type of occupation they had before the firm was established. From five alternative questions, 37.5 per cent of managers answered that they were related to the industry even before the firm was established.

⁵³This is a set of statistics that indicates the relative magnitude of the differences between means, or the amount of the total variance in the dependent variable that is predictable from knowledge of the levels of the independent variable (Tabachnick and Fidell 2007: 54). The effect size is calculated as follows:
 $r = z / \text{square root of } N \text{ where } N = \text{total number of cases.}$

Table 4.29. Mann-Whitney U test results – human capital variables

Significant variables	Mean rank		U	z	r sq.	p < 0.10
	High growth	Other firms				
Last occupation of founders	19.97	13.3	72,500	-2.172	0.38	0.03
Number of employees with university diplomas	18.32	13.3	72,500	-1.647	0.29	0.09
In-firm provision of training	13	20	72,000	-2.441	0.43	0.015

Source: Survey 2013

4.9.2. The logistic regression results

Direct logistic regression was performed to assess the impact of a number of human capital variables on the likelihood that firms would have greater sales growth. The model contained three independent variables (last occupation of founders, number of education of employees with universities degrees, and in-firm provision of training). The full model containing all predictors was statistically significant, $\chi^2(3, N = 32) = 13.70, p < .003$, indicating that the model was able to distinguish between firms which reported and did not report the sales growth. The model as a whole explained between 34.81% (Cox and Snell R square) and 46.5% (Nagelkerke R squared) of the variance in growth, and correctly classified 71.9% of cases. As shown in Table 4.30 below, two of three independent variables made a unique statistically significant contribution to the model (in-firm training and the founders' occupation before). The strongest predictor of higher growth was the variables in-firm training, recording an odds ratio of 8.859. This indicated that firms which had in-firm trainings were over 9 times more likely to experience higher growth than those who did not report organising training activities within firms, controlling for all other factors in the model. Another strong predictor is last occupation of founder which suggests that firms whose owners have previous experience in the current business are 2.79 times more likely to report higher growth than the other group of firms.

Table 4.30. Logistic regression on resources/inputs

	B	S.E.	Wald	df	Cox and Snell R sq. Nagelkerke R sq.	p	Odds ratio	95.0% Odds Ratio Lower	Upper
Employees with university education	.059	.074	.627	1		.428	1.060	.939	1.198
Last occupation of founders	1.026	.452	5.152	1	0.348 0.465	.023	2.790	1.326	5.868
In-firm training	2.288	1.000	5.232	1		.022	9.859	1.902	51.110

Source: Survey 2013

The above findings indicate that human capital can be a differentiating factor between two groups of firms. More specifically, upgrading and updating the level of know-how, knowledge, and other working skills are indicated to be crucial factor for enhancing firm performance. Specific firm-training can therefore increase the competency of managers and workers, competency which gradually becomes a "strategic asset" (Winter, 1987). Benefits of training accumulated from the past builds "bundles" of routines that can be difficult to understand and imitate (Koch and McGrath, 1996), and which can improve competitive advantage and consequently lead to superior performance. Evidence also shows that prior experience in the same industry is one of the prerequisites for greater business experience. This provides both general and specific knowledge and skills to human resources, and thus may lead to sustainable competitive advantage.

4.10. Empirical results on market and business constraints

4.10.1. The Mann-Witney U test results

The results of the Mann-Whitney U Test on the market and business constraints show that there are six variables which differentiate high-growth firms from the other firms. The findings indicate that one of the constraints that low-growth firms encounter is their ability to cover the size of the market, namely that they mainly sell in the local market. This is indicated by the mean rank, and it is statistically signified by p value ($p < 0.06$) and the effect size ($r^2 = 0.33$). In contrast, high-growth firms seem to be more aware that quality of products is one of the prerequisites of the market competition, but probably not one of the differentiating factors in gaining a competitive advantage in the marketplace. This can be better illustrated by the mean rank given in the Table 4.31 below. One of the most binding constraints for all firms seems to be finding people with know-how skills. 78 percent of firms responded that they find difficulties in hiring employees with technical skill. The only difference is that high-growth firms find it easier to keep good employees once they find them. On the contrary, firms in the other group reported that one of the constraints they face is to keep people with know-how skills.

Table 4.31. Mann-Whitney U test results – market and other constraints

Significant variables	Mean rank		U	z	r sq.	p < 0.10
	High-growth	Other firms				
Sales in local market	1.5	4.5	0	-1.879	0.33	0.060
Quality is the main factor of competitive advantage in the market	18.69	14.31	93,000	-1.499	0.27	0.134
Source of competitive advantage is product/service quality	14.25	18.75	92,000	-1.476	0.26	0.140
Marketing problems (i.e. lack of marketing and management know-how)	19.78	13.22	75,500	-2.300	0.41	0.021
Difficulty in finding employees with technical skills	19.13	13.88	86,000	-1.755	0.31	0.035
Difficulty in keeping employees with technical skills	13.41	19.59	78,500	-1.944	0.34	0.052

Source: Survey 2013

4.10.2. The logistic regression results

The logistic regression was also performed to assess the impact of a number of business constraints and market variables on the likelihood that firms would have greater sales performance. With respect to market factors, the model contained nine independent variables (see the Table 4.32 below). The full model containing all predictors was not statistically significant, $\chi^2(3, N = 32) = 13.213$, $p < 0.153$ indicating that the model was not able to distinguish between firms which reported and did not report that these variables represent distinguishing factors to the sales growth. The model as a whole explained between 34 % (Cox and Snell R square) and 45% (Nagelkerke R squared) of the variance in growth, and correctly classified 87.5% of cases. Results suggest that the vast majority of variables do not make any unique statistically significant contribution to the model. The strongest predictor of higher growth was the variable of in-firm training, recording an odds ratio of 1.06. This indicated that firms which cover the whole national market, as opposed to those that cover only the local market, were over 1.06 times more likely to experience higher growth than other firms. From other group of variables, the results suggest that though not statistically significant, price, cost and marketing promotion have the strongest impact on the higher sales growth. From the results obtained it could be inferred that for the manufacturing firms included in the sample, factors such as price, cost and customer service, do not represent any significance variable in relation to competitive advantage.

Another regression exercise was run also with the intention to assess the impact of business factors on the sales growth. The regression model contained eight variables, and all predictors turned out to be statistically significant, $\chi^2(3, N = 32) = 26.99, p < .001$, indicating that the model was able to distinguish between firms which reported and did not report their growth. The model as a whole explained between 57.00% (Cox and Snell R square) and 76.00% (Nagelkerke R squared) of the variance in growth, and correctly classified 71.9% of cases. As the Table 4.32 below indicates, variables related to human capital are the only variables that made a unique statistically significant contribution to the model – finding and keeping people with adequate working skills. The strongest predictor which is likely to most affect the sales growth is related to keeping people with working skills, with p value equal to 0.016 and negative ratio of 0.90. This indicated that higher growing firms are 0.90 times less likely to report having problems keeping skilled workers than the other group of firms. This was also confirmed in the section on descriptive statistics where over 50 percent of smaller growth firms are more likely to report problems with keeping skilled workers as opposed to higher growing firms which report only 18.3 percent. Another strong predictor is finding the people with technical working skills. More specifically, this figure indicates that high growing firms are 43 times more likely to report difficulties finding people with the required skills than the other group of firms. Again, this is confirmed in the section of descriptive statistics where 93.8 percent of high-growth firms reported to have difficulties to find people with adequate technical working skills as opposed to the other group of firms with 62.6 percent. The next most robust constraint was reported to be regulations, with p value equal to .143, and with a negative odd ratio 2.66, indicating that low growing firms are 2.66 more likely to report regulations as a business constraint.

Table 4.32. Logistic regression on market factors

Variables	B	S.E.	Wald	df	Cox and Snell R sq. Nagelkerke R sq.	p	Odds ratio	90% C.I. for Odds ratio	
								Lower	Upper
Price	-1.084	.659	2.706	1	0.338 0.451	.100	.338	.114	1.000
Quality	.788	.842	.878	1		.349	2.200	.551	8.780
Customer Service	-.172	.609	.080	1		.778	.842	.310	2.292
Product	.953	.802	1.411	1		.235	2.593	.693	9.700
Cost	1.036	.637	2.647	1		.104	2.818	.989	8.031
Innovation	.414	.426	.947	1		.331	1.513	.751	3.048
Alliances	-.472	.518	.831	1		.362	.624	.266	1.462
Marketing and Promotion	-.693	.537	1.668	1		.197	.500	.207	1.209
National Sales	.060	.030	3.897	1	.048	1.062	1.010	1.117	

Source: Survey 2013

Table 4.33. Logistic regression on constraints

	B	S.E.	Wald	df	Cox and Snell R sq. Nagelkerke R sq.	p	Odds ratio	90% C.I. for Odds ratio	
								Lower	Upper
Finding skilled people	3.776	1.840	4.213	1	0.570 0.760	.040	43.626	2.117	899.106
Keeping skilled people	-2.409	.999	5.813	1		.016	.090	.017	.465
Taxes	-.210	.703	.090	1		.765	.810	.255	2.575
Corruption	-.270	.736	.134	1		.714	.764	.228	2.564
Finance	.352	1.387	.064	1		.800	1.421	.145	13.924
Know How Thechnology	-.479	.951	.253	1		.615	.619	.130	2.962
Competition law	.179	.442	.165	1		.685	1.197	.579	2.474
Regulations	-1.326	.906	2.143	1		.143	.266	.060	1.178

Source: Survey 2013

From the above finding it could be inferred that out of the human capital factors, other business factors related to market factors such as price, cost, quality, etc. as well as general business factors, seem to have an even effect on all firms. In other words, these findings indicate that the business environment does not seem to be a differentiating factor with regard to the performance of the firm, namely that those that are less affected do not necessarily perform better.

4.11. Empirical results on organisational capabilities

4.11.1. 10.1. The Mann-Witney U test results

The entrepreneurship and innovation capabilities, means the process through which a firm comes up with new opportunities for a new venture (Hisrich, Peters, Shepherd, 2010). In other words, the purpose was to evaluate the ways in which firms explore new ideas, technologies, or new markets, namely whether they do that through customer feedback, suppliers, competitors, research bodies, trade fairs, etc. The results from the Mann-Whitney U test indicate that from 15 variables included in the model, 4 of them turned out to be statistically significant variables. More specifically, the test revealed that high-growing firms differ from the other group of firms in terms of new products and services that they introduce, new manufacturing methods they utilise, and by the ability to take business risks. That is illustrated through $p < 0.05$ and $r^2 = 0.32$ values which are considered statistically robust indicators. High growth firms differ also in terms of introducing new manufacturing methods ($p < 0.031$; $r^2 = 0.38$). Another capability that seems to make considerable difference (though not statistically significant) between two groups of firms is the ability to take business risks. The results show that high-growth firms are significantly greater risk takers than the other groups of firms ($p < 0.024$; $r^2 = 0.34$).

Table 4.34. Mann-Whitney U test results on entrepreneurship and innovation capabilities

Significant variables	Mean rank		U	z	r sq.	p < 0.10
	High growth	Other firms				
Introduction of new goods or services	13.5	19.5	80,000	-2.675	0.32	0.050
Introduction of new manufacturing methods	13.5	13.5	80,000	-2.156	0.38	0.031
Learning through Clients or customers	19.25	13.75	84,000	-1.731	0.31	0.084
Risk taking	19.25	13.75	80,000	-2.876	0.34	0.024

Source: Survey (2013)

As regard the dynamic capabilities of firms, the most statistically robust differences between the two groups are found to be the way firms observe and adopt the best practices in the market (sensing) ($p < 0.02$; $r^2 = 0.41$), how and why they change their practices ($p < 0.058$; $r^2 = 0.34$), the way they train their workforce (modelling & transforming) ($p < 0.031$; $r^2 = 0.38$), and, finally, how practical experiences are shared within the organisation ($p < 0.04$; $r^2 = 0.34$). The differences between groups can also be illustrated through mean ranks. Thus, findings indicate that high-growth firms differ in the way they observe and adopt the best practices in the market (**mean rank = 20.13**), as opposed to other group of firms that give less importance to the changes in the market (**mean rank = 12.88**). High-growth firms change their practices mostly based on the feedback they get from customers (**mean rank = 20**), versus other firms (**mean rank = 13**). This corresponds with the above indicated entrepreneurship variable which shows that high-growing firms learn mostly from customer feedback. High-growth firms also excel in activities related to changes in the market demand (**mean rank = 19.56 vs 13.44**). Better dynamic capabilities are also reflected in terms of implementation of training activities. High-growth firms implement systematic internal and external training sessions (**mean rank = 19.5 vs 13.5**). This variable is in line with the previous variable which indicated that high-growth firms continuously organise in-firm training activities. This was found to be the most robust statistically significant variable in the group of human capital indicators. Another variable that differentiates groups is the way employees share their practical experiences in the organisation. High-growth firms report higher means than other firms.

Table 4.35. Mann-Whitney U test results on Dynamic capabilities

Significant variables	Mean rank		U	z	r sq.	p < 0.10
	High growth	Other firms				
Observing skills	20.13	12.88	70,000	-2.318	0.41	.020
Change based on customer feedback	20	13	80,000	-1.897	0.34	.058
Change based on market demand	19.56	13.44	79,000	-1.926	0.34	.054
Implementation of internal training	19.5	13.5	72,000	-2.163	0.38	.031
Employees share experiences on a frequent basis	19.25	13.75	76,000	-2.050	0.36	.040

Source: Survey (2013)

Another organisational capability found to differentiate one group of firms from another is networking capabilities. Though not statistically significant ($p < 0.072$; $r^2 = 0.32$), the results indicate that high-growth firms pay more attention to selecting their suppliers. Statistically significant differences were found in regard to recruiting skilled labour; namely, high-growth firms give more importance to networks that enable them to recruit skilled labour (**mean rank = 19.34 vs 13.16**). Findings indicate that groups differ also in terms of the relevance for them of the assistance in obtaining business loans, and assistance in arranging taxation or other legal issues. The high-growth firms report that these two variables are significantly less relevant (**mean rank = 12.05 vs 20.05; mean rank = 12.22 vs 20.13**). This can probably be explained by the fact that high-growth firms are less dependent on external funds, compared to the other group of firms which need more external funds to run their business activities.

Table 4.36. Mann-Whitney U test results on networking capabilities

Significant variables	Mean rank		U	z	r	p < 0.10
	High growth	Other firms				
Selecting suppliers	19.25	13.75	84,000	-1.799	0.32	0.072
Recruiting skilled labour	19.34	13.16	74,500	-2.105	37	0.035
Assistance in obtaining business loans/attracting funds	12.5	20.5	64,000	-2.544	0.45	0.011
Assistance in arranging taxation or other legal issues	12.88	20.13	70,000	-2.279	0.4	0.023

Source: Survey (2013)

The results obtained from this research indicate that marketing capabilities represent the least significant components in differentiation between high-growth firms and other firms. From 29 variables, only two of them were found to be statistically significant, namely customer satisfaction ($p < 0.002$; $r^2 = 0.41$), and customer loyalty/retention ($p < 0.072$; $r^2 = 0.32$). One possible explanation of why business firms do not consider marketing as a necessary capability is that the majority of firms covered in the sample do not view market demand as an obstacle. On the question of whether demand restricts their sales growth, 65.6 percent of respondents answered that they view the market demand obstacle either as non-existent or only to a little extent as an obstacle. Another possible explanation could be that the majority of firms are not export oriented entities. Finally, due to the fact that majority of the firms covered in the sample are relatively new firms, marketing-based processes that become embedded over time take time to be created (Teece *et al.*, 1997).

With regard to customer loyalty, it seems that firms give greater attention to customer service by increasing specific post-sale services to their customers. As a matter of fact, during the interviewing process managers did not present any model or program they use to reward their customers for

repeat businesses. The usual post-sale services include periodic or as-required maintenance of sold products, during and after a warranty period.

Similar findings were attained in relation to teamwork capabilities. From seven variables, only one of them was found to be statistically significant. This can probably be explained by the fact that the sample consists exclusively of manufacturing firms in which the production processes require less teamwork based activities.

Table 4.37. Mann-Whitney U test results on Marketing and teamwork capabilities

Significant variables	Mean rank		U	z	r	p < 0.10
	High growth	Other firms				
Customer satisfaction	20.13	12.88	70,000	-2.322	0.41	0.02
Customer loyalty/retention	13.25	19.75	76,000	-2.034	0.36	0.042
The group is responsible for its results, but at the same time is reviewed from outside	15.06	17.94	105,000	-1.714	0.3	0.086

Source: Survey (2013)

4.11.2. The logistic regression results

To assess which of the organisational capability factors has the strongest impact on the differences between two groups of firms, a binary logistic regression exercise was conducted. The model used in the regression exercise was based only on the variables that were statistically significant when the Man-Witney U test was run.

The model related to entrepreneurship and innovation capabilities contained four independent variables (introduction of new or significantly improved goods or services during the past three years, the new or significantly improved goods or services were new to the national market, the risk-taking ability, and learning through clients or customers). The full model containing all predictors was statistically significant, $\chi^2 (3, N = 241) = 9.13, p < .028$, indicating that the model was able to distinguish between respondents who reported and did not report a sales growth. The model as a whole explained between 25 % (Cox and Snell R square) and 33% (Nagelkerke R squared) of the variance in sales growth status, and correctly classified 71.9% of cases. As shown in Table 4.38 below, only two of four independent variables made a unique statistically significant contribution to the model. The strongest predictor is the second variable (introduction of new manufacturing methods during the past three years) with **$p=0.038$** , recording a very significant odds ratio of 2.56. This suggests that high growing firms are around 3 times more likely to report this as the most significant variable comparing to the other group of firms. The second most robust variable is the ability of firms to take risks, with **$p=0.04$** with odds of 2.26. It is quite understandable that successful firms are more prone to take business risks. While implementing risky projects they may make mistakes, but these failures ensure more sustainable successes in the long run (Morris & Kuratko 2002). Morrow *et al.*, (2007) argue that by taking business risks managers attempt to change existing resource portfolios and in this way they alter an enterprise’s capabilities. Research on corporate entrepreneurship notes that certain internal factors, such as compensation practices (for example managerial option incentives) may encourage managers to take moderate and calculated risks (Wright *et al.*, 2007).

With respect to dynamic capabilities, the results suggest that none of them seem to be statistically significant in predicting the difference between two groups of firms. However, a closer look shows that one of the variables that may have greater predictability seems to be related to the capability of

firms to change working practices based on customer feedback. This is indicated by the odds ratio, which shows that high-growth firms are 2.2 times more likely to report customer feedback as a significant variable. The second variable that seems to have greater statistical significance is the ability of the workforce to share good experiences among themselves, with an *odds ratio* = 2.2 and $p = .174$. Overall the model used seems to be statistically significant, $\chi^2 (3, N = 241) = 13.30, p < .031$, explaining between 32 % (Cox and Snell R square) and 44% (Nagelkerke R squared) of the variance in sales growth between two groups of firms, and correctly classified 75.2% of cases.

In relation to the networking capabilities, the logistic regression outcomes indicate that the most robust predictors are variables related to the assistance to arrange taxation or other legal issues, and to obtain loans. This is reflected by the $p = .025$, and $p = .039$ respectively. The odd ratios for both these variables are negative. This can be confirmed also through descriptive statistics figures where for high-growth firms tax and other legal issues, as well as assistance to obtain loans, do not represent any significant issue. For instance, only 25 percent of firms view as either important or significantly important the need to obtain assistance on tax and legal issues as opposed to other firms with 62 percent. The statistical significance of two other variables (recruiting skilled workers, and selecting suppliers) as predictors of the differences between two groups of firms is lower and with positive coefficients (1.0 and 1.2). The model is statistically significant, $\chi^2 (3, N = 32) = 20.965, p < .000$, explaining between 48 % (Cox and Snell R square) and 64% (Nagelkerke R squared) of the variance in sales growth between two groups of firms, and correctly classified 81.3% of cases.

The last category of organisational capabilities subject of binary logistic regression was related to marketing. The regression results indicate that none of them are statistically significant with p values higher than 0.05 percent. More specifically, the p value for customer satisfaction is equal to .258, and for customer loyalty/retention is quite high, $p = .801$. The odds ratio for the first variable is positive 0.258 indicating that that high growing firms are 0.3 more likely to report this variable as significant than the other group of firms, controlling for all other factors in the model. The customer loyalty variable would be reported 0.156 times more from the high-growing firms as a significant factor than by the other group of firms. The significance of this model is reflected by the following figures: $\chi^2 (3, N = 32) = 6.38, p < .043$, explaining between 17 percent (Cox and Snell R square) and 23 percent (Nagelkerke R squared) of the variance between two groups of firms, and correctly classified 75 % of cases.

Table 4.38. Logistic regression on organisational capabilities

		B	S.E	Wald	df	Cox and Snell R	p	Odds ratio	90% C.I.for Odds	
									Lower	Upper
Entrepreneurship and innovation	Introduction of new goods or services	-.795	1.339	.352	1		.553	.452	.033	6.238
	Introduction of new manufacturing methods	2.547	1.225	4.325	1	0.34 0.46	.038	12.774	1.158	140.915
	Learning through clients or customers	.784	.553	2.007	1		.157	2.190	.740	6.479
	Risk taking capability	2.264	1.117	4.106	1		.043	9.623	1.077	85.994
	Constant	-5.403	2.271	5.663	1		.017	.005		
Dynamic capabilities	Observation skills	.115	.637	.033	1		.856	1.122	.322	3.909
	Change based on customer feedback	.801	.488	2.693	1	0.319 0.426	.101	2.229	.856	5.804
	Change based on market demand	.583	.514	1.285	1		.257	1.791	.654	4.908
	Implementation of internal training	.153	.337	.205	1		.651	1.165	.602	2.256
	Employees share experiences on a frequent basis	.806	.591	1.862	1		.172	2.240	.703	7.134
	Constant	-8.897	3.462	6.606	1	.010	.000			
Networking capabilities	Selecting suppliers	1.010	.713	2.004	1		.157	2.746	.678	11.117
	Recruiting skilled labour	1.265	.801	2.494	1	0.481 0.641	.114	3.542	.737	17.018
	Assistance in obtaining business loans/attracting funds	-1.526	.740	4.247	1		.039	.217	.051	.928
	Assistance in arranging taxation or other legal issues	-1.381	.616	5.024	1		.025	.251	.075	.841
	Constant	2.619	4.010	.427	1		.514	13.725		
Marketing	Customer satisfaction	.877	.776	1.279	1	0.17 0.23	.258	2.404	.526	10.994
	Customer loyalty/retention	.156	.619	.064	1		.801	1.169	.348	3.933
	Constant	-3.670	1.801	4.155	1		.042	.025		

Source: Survey (2013)

From the outcomes outlined above, it can be inferred that organisational capabilities play significant role in the differentiation between the two groups of firms. However, evidence suggests that not all of them have the same significance, since some of them seem to have less and more reduced impact. From the set of 70 variables, only 15 of them were statistically significant. For instance, with regard to corporate entrepreneurship capability, from 15 variables, only four of them were statistically significant differentiators. Specifically, organisational capabilities related to marketing and teamwork capabilities were the variables with the least impact on the firm performance. As stated above, one explanation could be that most of firms are relatively new, and have not managed to develop specific human capacities related to marketing and teamwork activities. The vast majority of firms have no specific departments or had not employed specific people dealing with marketing activities. This may be also related to the evidence that the majority of firms do not view market demand as one of the constraints. Dynamic and networking capabilities seem to be the major differentiators between the two groups of firms. From the whole set, half of the dynamic capability variables turned out to make significant impacts on the performance variability between firms. Literature views this capability as the ability of firms to integrate, build, and reconfigure internal competences which successfully address changes in the environment (Tece et al., 1997, Tece, 2007). This is also an indicator that high-growth firms are better in getting rid of obsolete resources or recycling old resources in new ways (Simon and Hitt, 2003). This is probably a function of a path dependency feature (Dierickx and Cool, 1989). Also networking capabilities seem to be crucial to the explanation of performance variability among firms. From 10 variables, 4 of them turned out to be statistically significant. This indicates that high-growth firms are better at establishing good relationships with stakeholders such as customers, suppliers, tax and legal authorities, banks, etc. In turn, they are better in acquiring new resources, reducing transaction costs, have access on information about customers, have better access on the external finance, obtain better quality and safe raw materials, etc.

4.12. Empirical results on management practices

4.12.1. The Mann-Witney U test results

The results given above indicate that organisational capabilities represented specifically through entrepreneurship and innovation, dynamic capabilities, networking, and less through marketing and teamwork capabilities, are linked with the better performance of high-growth firms. Empirical evidence suggests that generation of higher rents is also the function of managerial practices (Bloom and Von Reenen, 2010). The results of the survey show that management practices seem to have the highest effect on the performance variability between high-growing and the other group of firms. The findings show that from 18 indicators tested, half of them turned out to be statistically significant indicators that explain why high-growing firms differ from the other group of firms. In their study Bloom and Von Reenen (2010) argue that more educated managers and employees are more likely to be aware of the benefits of modern management practices. This is in line with one of the findings in this research, which indicates that high-growing firms in general employ more college graduates, and provide more staff training than the other group of firms.

The outcomes show that there is no significant statistical difference between groups in terms of operations. The difference is mostly reflected by how managers implement monitoring practices, or how they set up business targets, and finally by the way managers deal with incentive systems, namely how they remove poor performers, incentivise better ones, etc. As far as monitoring practices is concerned, from five indicators, four of them are found to play a crucial role in performance variability. High performing firms apply better management practices in terms of performance tracking (**mean rank = 19.69 vs 13.31; $p < 0.031$; $r^2 = 0.38$**). Also performance dialogue (**mean rank = 18.88 vs 14.13; $p < 0.108$; $r^2 = 0.28$**), consequence management (**mean rank = 18.88 vs 14.13; $p < 0.007$; $r^2 = 0.48$**), and performance clarity and comparability (**mean rank = 18.88 vs 14.13; $p < 0.045$; $r^2 = 0.35$**) are found to be statistically significant in terms of performance differentiation. As a matter of fact, performance dialogue seems to be less statistically significant, with *p value* around 10 percent.

With regards to management practices related to the targets area, evidence shows that high-growth firms tend to distinguish in three fundamental elements. More specifically, it seems that high-growth firms are better off in the way targets are stretched and interlinked over the time horizon (**rank mean = 19.59 vs 13.41; $p < 0.047$; $r^2 = 0.36$**), and in the way the targets are stretched and interlinked throughout the organisational units (**rank mean = 19.63 vs 13.38; $p < 0.045$; $r^2 = 0.35$**).

Management practices related to the incentive area have produced some interesting results which at the same time confirm some findings identified in other management areas. As indicated above, one of the main factors as to why high-growth firms excel versus the other group of firms is human capital management. From six incentive management indicators, half of them are found to be statistically significant. The results show that, high performing firms are distinguished in terms of the practices they apply to remove poor performers (**$p < 0.065$; $r^2 = 0.41$**), the way they promote high performers (**$p < 0.022$; $r^2 = 0.037$**), and management practices they employ to attract human capital (**$p < 0.004$; $r^2 = 0.50$**).

Table 4.39. Mann-Whitney U test results – management practices

Significant variables	Mean rank		U	z	r	p < 0.10
	High growth	Other firms				
Performance Tracking	19.69	13.31	77.000	-2.153	0.38	.031
Performance dialog	18.88	14.13	90.000	-1.610	0.28	.108
Consequence Management	20.25	12.75	68.000	-2.692	0.48	.007
Performance clarity and comparability	19.44	13.56	81.000	-2.004	0.35	.045
Targets time horizon	19.59	13.41	78.500	-1.983	0.35	.047
Targets are stretching	19.63	13.38	78.000	-2.009	0.35	.045
Managing human capital	19.31	13.69	95.000	-1.877	0.33	.061
Removing poor performers	19	14	80.000	-1.846	0.33	.065
Promoting high performers	19.31	13.69	83.000	-2.088	0.37	.037
Attracting human capital	18.88	14.13	92.000	-2.843	0.50	.004

Source: Survey 2013

4.12.2. The logistic regression results on managerial practices

A logistic regression was conducted to assess whether management practices predict the differences in sales growth between high growth and low growth firms. The models used in the regression analysis are based on those variables which from the Man-Witney U test turned out to be significant in terms of firms’ performance variability.

The model on management practices contained four variables of which only the variable related to consequence management turned out to have a more robust impact on firm performance. The odds ratio for this variable 2.920 indicating that high-growth firms are likely to report 2.92 times more this variable as significant one than the other group of firms. From other variables, the most significant one was the performance tracking variable, with odds ratio 1.568. Two other variables do not seem to be significant predictors of differences between two groups of firms. The full model containing all predictors was statistically significant, $\chi^2 (3, N = 241) = 10.992, p < .027$, indicating that the model was able to distinguish between respondents who reported and did not report a sales growth. The model as a whole explained between 29 % (Cox and Snell R square) and 39% (Nagelkerke R squared) of the variance in sales growth status, and correctly classified 71.9% of cases.

As far as the targets area is concerned, the evidence suggests that none of them seem to be statistically significant in predicting the performance variability. Both variables seem to have a similar predictability level since the odds ratios for both of them are 1.372 and 1.373. The overall model also is not statistically significant, $\chi^2 (3, N = 32) = 5.697, p < .06$, explaining between 16 % (Cox and Snell R square) and 21% (Nagelkerke R squared) of the variance in sales growth between two groups of firms, and correctly classified 75.2% of cases.

With respect to management practices related to the incentive area, the logistic regression outcomes indicate that the most robust predictors are related to the variable of attracting human capital, and management dealing with poor performers. The odds ratio related to attracting human capital is 3.948, indicating that the likelihood is around four times more that high-growth firms will report this variable than the other group of firms. Similarly, the odds ratio 3.233 shows that high growing firms are more likely to report around 3 times better practices in removing poor performers than the other group of firms. The model is statistically significant, $\chi^2 (3, N = 32) = 16.968, p < .001$, explaining between 41 % (Cox and Snell R square) and 55 % (Nagelkerke R squared) of the variance in sales growth between two groups of firms, and correctly classified 75.01% of cases.

Table 4.40. Logistic regression on managerial practices

	B	S.E	Wald	df	Cox and Snell R sq. Nagelkerke R sq.	p	Odds ratio	90% C.I. for Odds ratio	
								Lower	Upper
Performance Tracking	.450	.440	1.046	1		.306	1.568	.662	3.713
Performance dialog	-.032	.526	.004	1	0.291	.952	.969	.345	2.718
Consequence Management	1.071	.549	3.811	1	0.388	.051	2.920	.996	8.561
Performance clarity and comparability	.036	.447	.006	1		.936	1.036	.431	2.490
Targets time horizon	.280	.278	1.010	1	0.161	.315	1.322	.767	2.281
Targets are stretching	.224	.272	.679	1	0.217	.410	1.251	.734	2.132
Managing human capital	.260	.317	.672	1		.412	1.297	.697	2.415
Removing poor performers	1.173	.613	3.666	1		.054	3.233	.973	10.744
Promoting high performers	.594	.513	1.340	1	0.412	.247	1.812	.662	4.957
Attracting human capital	1.373	.646	4.524	1	0.549	.033	3.948	1.114	13.991

Source: Survey 2013

In conclusion, results show that managerial practices in Kosovo (though comparing to developed countries still underdeveloped), play a crucial role in the firms’ performance variability. From the set of eighteen management types of practices, grouped into four areas, empirical evidence indicates that almost half are statistically significant in explaining firm performance and growth. These results reinforced the evidence which indicates that there is not just one management practice that provides an explanation of the statistical correlation between management practice and performance (Bloom and Van Reenen, 2007). The findings obtained from this research suggest that firms that apply “better” management practices tend to have better performance, which is translated into greater sales. More specifically, the findings indicate the following:

- There is no significant difference between firms in the area of operations, meaning that high-growing firms and the other group of firms in general apply similar business operation methods.
- Monitoring practices seem to play a crucial role in the performance variability. From five different variables, four of them were statistically significant: performance tracking, performance dialogue, consequence management, and the clarity and comparability. Indeed, the regression analysis suggests that one of the most significant monitoring factors is related to the way that managers deal with situations when agreed targets are not achieved, meaning steps taken by managers in relation to retraining and reassigning staff members in other job positions.
- With regard to the third area of management practices, the manner of how targets are established, the evidence shows that high-growth firms take into account short term goals which in turn are used as a “staircase” towards the long-term goals. Evidence also indicates that high-growth firms manage to better interlink department’s goals with overall firm goals.
- One of the managerial areas which resemble more modern managerial practices seems to be the incentive area. The results show that high-growth firms give much more importance to labour incentives than the other group of firms. From five, three of them are statistically significant. Also the regression analyses indicate that attracting human capital, and management systems to remove poor performers represent the most significant predictors of performance variability.

4.13. A discussion on less significant indicators

As stated previously, this part of the study is of a more exploratory nature. The questionnaire was structured of 150 indicators, from which 34 showed to be statistically significant indicators that differentiate high-growing firms from the other group of firms. The less significant indicators are given in the Appendix F. Findings that are statistically less significant are sometimes valuable as

findings that are practically significant, especially in view of limited sample size (Goodman, 2008). The report shows that firms in both groups are specifically deficient in terms of marketing capabilities. From 21 variables, only 2 of them turned out to be statistically significant to differentiate groups. The means identified are similar for the both groups. This can probably be explained by the fact that firms are not concerned about the lack of market demand and therefore the marketing skills are not treated as a source of competitive advantage. Another section of the questionnaire which produced the least statistically significant indicators was the one related to barriers in operating activities, purchase of technology and the funding of business activities.

As regard to the management practices, the empirical research is somewhat embryonic. Bloom et al., (2011) argue that there are further areas for additional research, such as management experiments in firms, hospitals and schools to clearly identify the causal impacts of better management practices, as well as an area on longer-run management panel data. As these authors note, doing so would probably help to identify the dynamics of managerial change and make stronger statements about “cause and effect” factors.

4.14. Discussion

The results presented in this study should be viewed in light of its limitations. One limitation of this study is the small sample size. Future research could expand the size of the sample, and widen out from manufacturing firms. Future research could also be expended to other economic sectors. In terms of methodology, in order to explore factors of organisational capabilities and management practices (configurations), and try an alternative way to establish which profiles are associated with high-growth firms versus other firms, future research could apply qualitative comparative analysis as well (Ragin, 1987; 2000).

Despite its limitations, this analysis offers two main contributions. First, this is among the first research projects that by combining two prominent theories attempts to bring new evidence on which of two sets of variables play a dominant role in shaping performance difference among firms.

The second contribution is that it attempts to extend a prominent discussion within the resource-based theory and managerial practices literature to a new context, namely to the context of developing economies. Therefore this study attempts to broaden our understanding of how much these theoretical frameworks can measure firm performance variability beyond developed and developing economical settings. Surely, also provides a unique insight into development of Kosovo’s manufacturing firms.

4.15. Conclusions

This study has applied combined elements from the resource-based theory of the firm and the managerial practices approach. The purpose was to find out whether resources (inputs), organisational capabilities, and managerial practices have an effect on the performance variability of firms that operate in developing countries, with Kosovo as subject of analysis.

Consistent with the resource-based theory account that inter-firm performance variation can be explained by the distinctive and unique capabilities used by firms, the results of this study reveal a significant relationship between organisational capabilities and performance variability among firms. Findings indicate that some organisational capabilities seem to have greater impact on the performance differentiation between high-growing firms and the other group of firms. For instance, the empirical evidence supports resource-based theory predictions (Barney *et al.*, 2011) that the entrepreneurial and innovative capabilities, dynamic capabilities, and networking capability have a significant impact on the performance variability of firms operating in Kosovo. However, less evidence was found to support the predictions that marketing and teamwork capabilities have any significant impact on the performance variability. With regard to marketing capability, one explanation could be that firms operating in business environments in which demand is not considered as an obstacle, firms do not view marketing-based processes as indispensable factor for better performance. As far as teamwork capability is concerned, one explanation could be that teamwork skills perhaps are less required for firms in the manufacturing sector.

The quest to identify why some firms outperform others was extended to managerial practices. In addition to organisational capability factors, the empirical evidence found by this research study shows that quality of managerial practices applied in the organisation matter mostly. Indeed, much of the performance variation appears to be due to the presence or absence of several managerial factors. Managerial indicators related to monitoring, targeting and incentive practices were found to be more statistically influential to the performance variability than indicators related to operations. As a result of these findings it could be argued that better management practices applied by high-growth firms enable them to gain greater market share, and consequently be rewarded with higher sales volumes.

It is worth emphasising that although the evidence gathered by this study indicates that managerial practices explain the performance variability among firms, the findings show that the quality of managerial practices in Kosovo are lower as opposed to developed and developing economies.

Results indicate that there is no substantial empirical evidence that could support the prediction that performance variability among firms is due to the capability to invest in new tangible resources (equipment). 95 per cent of firms covered in the sample, from both groups, reported that they have invested in new equipment over the past three years. There is also no statistically significant evidence that could argue that performance variability is the result of the way the new equipment was purchased, namely whether it was purchased through internal or external funds. However, the findings show that human capital represented through education, experience and training, explains the performance variations between two groups of firms. Moreover, the data indicate that the number of people with university degrees, the experience/occupation of founders before the firm establishment, and the training activities contribute significantly to the performance variations among firms.

This part of the research also uncovered that both groups of firms have similar perspectives with regard to business obstacles they face in the market. For example taxes, corruption and other distortive policies appear to hinder almost equally both groups of firms.

In general terms, the findings in this chapter have reiterated the importance of resource-based theory and the managerial practices approach in exploring factors that differentiate performances of firms. Therefore, based on these findings, the following conclusions are drawn: **first**, the business environment does not seem to present any differentiating factor with regard to the performance of firms, namely that those that are less affected do not necessarily perform better. **Second**, the empirical evidence indicates that managerial practices (though still underdeveloped in Kosovo) play a crucial role in the performance variability and seem to be equivalent to production capabilities. **Third**, organisational capabilities also appear to be differentiating factors to the performance variability, but they are more truncated. Some of these organisational capabilities have significant effect while others do not. This is because some of the elements related to organisational capabilities, such as marketing and teamwork seem to have considerably less effect on the performance variability of firms that operate in developing economies.

CHAPTER 5

5. The Impact of Business Environment on the Growth of Firms in Kosovo

In the two previous chapters the focus of analysis was placed on two different factors that influence the growth of firms. The firm dynamics framework was utilised to investigate whether the evolution of incumbent firms, the rate of newly born firms and the exit of firms, or the firm survival rates have any influence on the growth of firms in a developing economic setting. In addition, in the previous chapter, the focus of the analysis were factors that internally affect the growth of firms, namely whether factors such as resources, organisational capabilities, and managerial practices represent factors that differentiate firms. In this chapter the investigation process extends to business environment factors, namely the subjects of analysis are factors that may externally constrain or enhance the growth of firms in a developing economy.

Extensive empirical evidence suggests that a favourable business environment promotes the growth of firms (Rodrik *et al.*, 2004; Dollar *et al.*, 2005; Carlin *et al.*, 2006). However, this evidence also shows that firms in developing countries face a tougher business environment than firms operating in developed countries.

The aim of this chapter is not only to examine the set of constraints to firm growth, but in addition to find out which of the constraints are the most binding. As will be explained in the methodology section, the process of analysis follows the framework provided by growth diagnostics (GD) theory put forward by Hausmann *et al.* (2008). It uses information from both, international and national sources. Regression analysis is performed by using a firm level sample containing 500 firms operating in Kosovo.

As stated above, one of the aims of this thesis is the investigation of external growth constraints, i.e. business environment factors that enable and constrain the growth of firms in Kosovo. In order to carry out this analysis, the growth diagnostics (GD) approach and methodology is employed. It is true that GD approach is centred on macro level, namely it pursues to identify the growth constraints at macro level. However, according to Hausmann *et al.* (2008: 22) the key problem to growth is related to low levels of private investment and entrepreneurship. In that respect, GD is a de facto micro based perspective on growth, i.e. it assumes that constraints to growth are essentially micro. Accordingly GD is concerned with the issue of what is preventing private firms, or private agents to expand their business activities, or why there is a low level of entrepreneurship?

Specifically, the following four factors were those in favour of adopting GD approach for exploring the issue of growth of firms in Kosovo.

First, GD provides a framework for formulating hypotheses on what may be preventing private investors to invest in their firms and why there is low level of entrepreneurship. This approach views economic growth as the result of an optimization process under constraints, and seeks to identify the constraints at the micro level that are the most binding, in the sense that their removal would

create conditions for firm expansion/growth and higher level of entrepreneurship. It assumes a simple model where firm growth and entrepreneurship depends on several factors such as physical and human capital, governance quality, institutions, infrastructure, and the quality of financial institutions.

Second, the GD approach enables us to identify not only the constraints to the firm growth, but also to rank them according to their importance, or list of the most binding factors that constrain the growth of firms, in this case in Kosovo. The underlying idea is that removal of a key constraint will have a larger impact on growth than the traditional approach based on a long and indiscriminate list of constraints. According to Hausmann *et al.* (2005, 2008), government reforms should be targeted to remove the most severe binding constraints, which is in sharp contrast with the traditional approach of intending to remove all distortions at the same time.

Third, at a methodological level GD tends to be pragmatic with respect to the kind of evidence used in the quest for binding constraints. This approach can be based on national data, cross-country comparisons, comparisons with similar neighbouring countries, and international rankings or enterprise surveys. Following the forks of a decision tree (see Figure 5.3 above) this framework enables us to use and scrutinize all sorts of datasets with the aim of finding the most binding constraint to the growth of firms.

Fourth, though in terms of its analytical logic GD is seemingly a top-down approach, it is also a bottom-up approach. In order to apply the model it needs to be complemented by a bottom-up survey data collected at firm-level, whereby the process of diagnosis enables to create a candidate list of costly business environment constraints (Carlin and Seabright, 2007). This is possible by including the manager/owners perspective (see Figure 5.4). More extensive details on GD approach and methodology is provided in sections 5.1.4, 5.1.5, and 5.2.

The chapter is organised as follows. The next section reviews the literature on the external growth constraints of firms and the theoretical framework used to analyse the data. The methodology is provided in the second section. The third section of this chapter examines the empirical analysis. The fourth section provides syndromes which are derived from the set of symptoms, while the last section provides conclusions.

5.1. Related literature on business environment factors

Intending to create economic values, business firms react to their business environment in different ways. In most of the cases this reaction is affected by technology and the market where they sell their products and services. But, assuming that two firms use similar technology and operate in similar market competition, they may still have different business performances, meaning that one may be more productive relative to another. Performance variability may be due to the internal factors they use including resources/inputs, managerial practices, and organisational capabilities; or due to factors outside to the firm's control. In literature the latter factors are known as business environment factors. The number of business environment factors that externally constrain the growth of firms may be different. The factors most commonly explored by empirical studies include: physical infrastructure, the legal system, the financial system, various aspects of the micro and

macro policy environment such as taxation, regulation, macroeconomic stability, and social factors such as crime and corruption in a society (Carlin and Seabright, 2007).

Aiming at analysing the effects of business environment factors on the growth of firms, researchers have used three different sources of evidence. The first source of evidence is based on cross-country growth regressions which are basically derived from the average or typical response of the economy to various environment factors. The second source of evidence is based on the subjective manager's assessment. In other words this source draws on the identification of business environment constraints as viewed from the manager's point of view. The third source of evidence is based on case study evidence generated by the prior history of the country in question, or by that of relevantly similar countries (Carlin and Seabright, 2007). Each of them generates various and often contradictory empirical evidence regarding the most binding constraints to the growth of firms. The following section provides some of the main characteristics of each above mentioned sources.

5.1.1. Empirical research based on cross-county regressions

Researchers often have generated different patterns on sample of countries through which they attempted to gather evidence about the average determinants of firm performance. Cross-county regression approach uses the relationship between two or more variables to explain the growth rates of a region, or of a country. Usually it relates to one or more independent (explanatory) variables with an explained or dependent variable. This model tends to explain what variables are causally associated with the growth in the average country. The following is the formula which is usually used to measure the growth:

$$gt = \alpha \log(Yt - 1) + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_n x_n$$

This formula estimates that each factor has its marginal contribution to growth β , by assuming that the contribution is the same for all countries in all sub-periods of the sample. There are many of such regressions that have used a wide range of explanatory variables including geographic, institutional, demographic, and financial ones (Sala-i-Martin 1997).

Many research studies have been baffled with the question why some countries grow faster than others. Most of them have argued that institutions are a major factor of wealth and long-term growth (Acemoglu *et al.*, 2001). In other words, countries that had managed to establish better political and economic institutions in the past are richer today. Being within the same field of enquiry, Djankov *et al.*, (2006) studied the relationship between business regulations and growth of firms. These authors used the Doing Business dataset in 135 countries aiming to measure how regulations in seven regulatory areas help or hinder business performance. Their findings suggest that government business regulations have huge impacts on the growth of firms.⁵⁴ More particularly they found that improving business regulations from the worst (first) to the best (fourth) quartile implies a 2.3 percentage point increase in average annual growth. On the other hand when this is compared with other variables such as primary school determinant, the effect is less (improving

⁵⁴Starting a business, hiring and firing workers, registering property, getting bank credit, protecting equity investors, enforcing contracts in the courts, and closing a business.

from the second worst to the best quartile of countries on primary school enrolment is associated with a 0.9 percentage point increase in growth rates, lower than the effect of business regulations). The effects of improvements in secondary education, inflation, and government consumption are also significantly lower than the effect of business regulations (Djankov *et al.*, 2006). They also provided evidence that the business regulations index and growth are consistently and positively correlated. According to them, countries with less burdensome business regulations grow faster.

A specific stream of literature analysed the impact of financial intermediation on the growth of firms. Picking up on this theme, using a sample of 71 countries Aghion *et al.* (2005), analysed the role of financial intermediation in the performance of firms. The authors tested the Schumpeterian model which implies that all countries above some critical level of financial development should converge in growth rate, and that in such countries financial development has a positive but eventually vanishing effect on steady-state GDP (Aghion *et al.*, 2005). Further on, the authors (in combination with the contribution of other authors) show that Schumpeterian growth theory provides a framework for analysing a variety of forces that contribute to non-convergence.⁵⁵ Moreover the empirical evidence of this study suggests that financial development is among the most powerful of these forces, especially considering that educational attainment, initial relative output and a large number of other candidate variables do not have an analogous effect when included in the same regression with financial development (Aghion *et al.*, 2005).

In the same line of inquiry, trying to explore the effects of society's other institutions, Bardhan (2005) discussed how, in some countries, the state at the initial stages of industrialization may play a crucial catalytic role in coordinating development (and providing appropriate positive and negative incentives) particularly in raising long-term finance for industrial development. He provides evidence that the government in some countries has not been successful in this role, given their low institutional capacity and their inability to rise above the inevitable political and rent-seeking pressures. He points out that the state's failure in addressing coordination problems in financial markets, in some of these countries, has been part of a more general failure to resolve other various collective action problems in providing public goods and social infrastructure. The failure in providing these public goods and social infrastructure is often a strategic outcome of fundamental distributive conflicts in society. He also states that initial inequality may result in the persistence of dysfunctional institutions, specifically in many poor countries. Bardhan (2005) concluded that state antiquity predicts security of property rights including in countries that were not European colonies, and, for some aspects of development, such as literacy, an index of participatory rights and democratic accountability is a better explanatory variable than property rights institutions.⁵⁶

Rodrik *et al.* (2004) have studied the three clusters of "factors" of economic growth: institutions, integration, and geographical. With a sample of 80 countries, they have repeated "traditional regression" by using larger set of instruments. The results produced by the study indicate that from

⁵⁵Howitt (2000), Acemoglu, Aghion, and Zilibotti (2002), and Howitt and Mayer-Foulkes (2002)

⁵⁶State antiquity in the sense of a continuing history of state structure and bureaucratic culture seems to be a good predictor of the security of property rights in developing countries that were colonies of Europe as well as others that were not (not surprisingly, the state antiquity index is in general much lower for sub-Saharan Africa and Latin America than for Asia) (Bardhan, 2005).

these three factors, quality of institutions is a far more important one. The authors argue that once the impact of institutions is controlled for, conventional measures of geography have at best weak direct effects on incomes, although they have a strong indirect effect by influencing the quality of institutions. In the same sense, once quality of institutions is controlled for, the impact of trade is almost always insignificant and often enters the income equation with the negative sign (Rodrik *et al.*, 2004). The authors point out that despite the fact that institutions have the primacy over other factors, this result is extremely meagre. This is so because, as they state, the main indicator of institutional quality remains “the investor” ratings of institutional environment. The quality of the institutions is related with the likelihood that investors will retain the fruits of their investments, the chances that the state will expropriate them, or the legal system will protect their property rights. Their findings indicate that when investors believe that their property rights are protected, the economy ends up richer. However, this does not mean that existence of property rights itself does the job. The authors illustrate that with the case of Russia where the system of property rights is in place, and China which still retains the socialist legal system. Despite these facts, entrepreneurs in China have felt sufficiently secure to make large investments, making that country one of the world’s fastest growing economies. By contrast in Russia, investors have felt insecure, and private investments have remained low. This may be translated as having a system of property rights in place on paper is not sufficient to attract foreign investments. On the contrary, credibly signalling that property rights will be protected is apparently more important than enacting them into law as a formal property rights regime (Rodrik *et al.*, 2004).

By using a large dataset encompassing 121 countries and spanning the years 1960-2000 Calderon and Serven (2003a,b) have provided an empirical evaluation of the impact of infrastructure development on economic growth and income distribution. The authors found that the volume of infrastructure stocks has a significant positive effect on long-run economic growth, and this finding is robust to changes in the infrastructure measure. Also they argue that infrastructure quantity and quality have a robust negative impact on income inequality. They find that inequality in income declines not only with larger infrastructure stocks but also with an improved quality of infrastructure services. Moreover, separate experiments (using a reduced sample) show that improved access on safe water has an additional positive impact on income equality. Another very important result derived from the study is related to the impact of infrastructure on poverty. These authors find evidence suggesting that infrastructure both raises growth and lowers income inequality and all this implies that infrastructure development may be a key win-win ingredient for poverty reduction. In addition to raising society’s overall level of income, it would help raise the income of the poor more than proportionately (Calderon and Serven, 2004). According to these authors, the development of infrastructure should be ranked at the top of the poverty reduction agenda.

There have been studies that provided empirical evidence on the effects and the interactions between economic and political liberalisations. Thus, using a sample made up of 140 developed and developing countries and spanning the years 1960 – 2000, Giavazzi and Tabellini (2004) analysed the role of the quality of governments in the economic growth of countries. They argue that bad economic policy is not the result of random policy mistakes, but follows from systematic economic failures in several dimensions. Conversely, countries ruled by “good” governments enact bundles of sound economic policies. The fact that studies occasionally observe comprehensive and rapid policy improvements or deteriorations, suggests that the quality of government is not entirely determined

by history (Giavazzi and Tabellini, 2004: 2). Which should come first, economic or political liberalisation? Are there interaction effects between political and economic liberalisations? The authors show that countries that first liberalize the economy and then become democracies do much better than countries that pursue the opposite sequence, in almost all dimensions. The authors have exemplified their claims with Chinese and Russian cases. One of the paths is to do what Russia did: first become a democracy and then try open up the economy. Most of the countries in their sample have done similarly. However, the practical results showed the economic payoffs are much higher for countries that do it the other way, namely who open up the economy while still being autocracies, and later become democracies (Giavazzi and Tabellini, 2004). There have been many other empirical studies that have considered similar issues, namely the impact of political and economic liberalisation on economic development.⁵⁷ In the same line of reasoning, there are authors like Glaeser *et al.* (2004) who were concerned about the dilemma whether political institutions cause economic growth, or whether, alternatively, growth and human capital accumulation lead to institutional improvement.⁵⁸ Literature recognises two approaches to confronting these challenges. The first approach supports the idea that countries need to start with democracy and develop institutions and with such institutions in place, investment in human and physical capital, and therefore economic growth, is expected to follow. The second approach proposes the reversed order: it emphasizes the need for human and physical capital accumulation to start the process. The second approach is based on the idea that even pro-market dictators can secure, for instance property rights, as a matter of policy choice. From the vantage point of poor countries, it sees democracy and other institutional improvements as the consequences of increased education and wealth, not as their causes (Glaeser *et al.*, 2004: 2). The authors found additional evidence that a) human capital is a more basic source of growth than are the institutions, b) poor countries get out of poverty through good policies, often pursued by dictators, and c) subsequently improve their political institutions.

Various studies have supported the argument that there is a positive relationship between per capita incomes and the quality of governance.⁵⁹ In this sense, Kaufmann *et al.* (2007c) in their paper separated strong positive causal effect from better governance to higher per capita incomes, and a weak or even negative causal effect running in the opposite direction. They used a dataset of 175 countries over the period 1996-2005. According to the main findings generated by this study, causality is from governance to GDP per capita. The study could not find evidence for virtuous circles, in which higher incomes lead to further improvements in governance.

Another business environment factor widely discussed in the literature is corruption. Many researchers argue that malfunctioning of government institutions constitutes a severe obstacle to

⁵⁷Sachs and Werner (1995), Wacziarg and Welch (2003), Barro (1996), Przeworski and Limongi (1993, 2000), Roll and Talbott (2003) and Persson (2004), Persson (2004, 2005), Reuveny and Li (2003).

⁵⁸North (1981) defines institutions as “a set of rules, compliance procedures, and moral and ethical behavioural norms designed to *constrain* the behaviour of individuals in the interests of maximizing the wealth or utility of principals” (p. 201-202).

⁵⁹Quality of governance was measured by the following indicators: Governance measures: Voice and accountability; Political stability; Government effectiveness; Regulatory quality; Rule of law; Control of corruption; Overall governance.

greater private investment.⁶⁰ It is a general impression that corruption happens and exists all over the world, with higher predispositions and more common in poorer economies. Concerning the impact of corruption on the growth process, there is a debate between researchers whether corruption greases or sands the wheels of economic growth (Bardhan 1997; Aidt 2009). Those in favour of the greasing hypothesis are based on the idea that corruption facilitates trade and moreover promotes efficiency by allowing private agents to circumvent bureaucratic and cumbersome regulations (Méon and Weill, 2010b). On the other hand, opponents of this view have built a solid theoretical rebuttal by arguing that the greasing hypotheses may be possible only as a best second option in a bad institutional setting. Empirical evidence supporting the latter view is abounding. For instance, one of the papers cited widely by the literature today is the one developed by Mauro (1995). By using a dataset made up of 68 countries over the period 1980 – 83, he argues that corruption reduces investment across developing countries, thereby negatively affecting growth. Later on, in two consecutive research studies, Reinikka and Svensson (2004, 2005) find that corruption has detrimental effects on human capital accumulation. However, the empirical evidence on the economic consequences of corruption is still inconclusive (Svensson 2005). There are still research papers that provide support to the greasing the wheels hypothesis of a positive correlation between corruption and growth in a number of fairly successful Asian economies, including China (Rock and Bonnett 2004, Li and Wu 2010).

In spite of its usefulness and advantages, empirical research on growth constraints based on a cross-country regression approach, seems to fall short in providing a comprehensive framework to effectively diagnose and identify the constraints that may be affecting the growth of firms in specific economic settings and at a particular point in time. This is because the approach does not take into consideration that different countries may have different characteristics and therefore those patterns derived from the analysis may not be applicable to each of them (Hausmann *et al.*, 2008). Other authors pinpoint the deficiencies of this approach, too. For instance, Carlin and Seabright, (2007: 8) note that cross-country regression analysis fails to reveal which institutions or elements of the business environment really matter for long-run development for the following reasons:

- it fails to provide correlation between the proxies that are used to characterise them,
- there are problems with measuring business environment variables,
- the persistence of institutions over time,
- samples are often comprised with the limited number of countries, and finally,
- frequently these studies are characterised by the paucity of credible instruments to deal with the problem of reverse causality as well as those of measurement error and omitted correlated variables.

In summary, taking into consideration these limitations, studies that appear to have identified one particular aspect of the business environment which derives from cross-country analysis should be

⁶⁰North [1990] emphasizes the importance of an efficient judicial system to enforce contracts as a crucial determinant of economic performance, low security of property rights over physical capital, profits, and patents may reduce incentives and opportunities to invest, innovate, and obtain foreign technology, cumbersome and dishonest bureaucracies may delay the distribution of permits and licenses, thereby slowing down the process by which technological advances become embodied in new equipment or new productive processes.

treated with some scepticism. Just as epidemiologists are sceptical of the new study they receive each year claiming to have found a particular foodstuff (broccoli this year or milk products last year) that raises or lowers the risk of breast cancer, economists should be sceptical of claims that the key dimension of the business environment has been revealed in a cross-country study (Carlin and Seabright, 2007: 8).

5.1.2. Empirical research based on firm-level regressions

Some empirical studies are based on subjective measures to come up with different and quite often contradictory outcomes in relation to the relationship between business environment factors and firm performance.⁶¹ This type of evidence is collected by asking firm managers what they view as the biggest barriers to their firms operations and growth. In this context, Dollar *et al.*, (2005) have used the investment climate surveys to measure how institutional and policy weaknesses affect the performance of firms in four developing countries.⁶² The study was restricted within the garment industry and used the city averages as their measure of the quality of the business environment, by including five business climate measures.⁶³ It is surprising that from those five independent variables, for managers the most binding constraint is the delay in getting a phone line, followed by customs delays and power outages. The availability of an overdraft and the number of inspections by government officials as a fifth factor did not appear to be as binding. It can be said that the findings are surprising because, in subsequent studies (i.e. Carlin *et al.*, 2006) in which the same countries were included in the sample (i.e. Business Environment and Enterprise Performance Survey, hereafter BEEPS), the constraints related to the telecommunication infrastructure were never recorded as of above average importance (nor is it in any other country in the dataset). As Carlin *et al.*, (2006) argue there might be various possible explanations for the discrepancy between the regression results and the low reported costs of the constraints in the raw data. One of them would be reverse causality – namely countries (or cities, in the Dollar *et al.*, analysis) that are prosperous for a variety of other reasons for which it is not realistically possible to control econometrically also happen to have higher levels of telecom services, alternatively the reason could be the presence of network externalities (Carlin *et al.*, 2006).

Another important study (which also raises the issue of interpretations) dealing with the role of business climate factors in promoting and restraining the growth of firm is the one developed by Ayyagari *et al.*, (2006). According to this study, although firms report many obstacles to growth, not all the obstacles are equally constraining. Some of the constraints affect firm growth either indirectly through their influence on other obstacles, or not at all. On the basis of regression analysis, the authors report that only obstacles related to access on external finance, crime and political instability directly affect the growth rate of firms. More specifically they argue that finance is the most binding constraint of the three, while the political instability and crime results are less robust

⁶¹ Among business environment factors which managers are usually asked to evaluate include: Telecoms, Electricity, Transport, Land access, Tax rates, Tax administration, Customs Regulation, Licensing Regulation, Employment regulation, Access on finance, Cost of finance, Policy uncertainty, Macro stability; Corruption; Crime; Skills availability, Anti-competitive practices.

⁶² Bangladesh, China, Ethiopia and Pakistan

⁶³ Telecom, custom regulations, electricity, access on external finance, and inspections by government officials.

to the exclusion of transition and African countries where they might be the most problematic for business growth. Thus, these results have important policy implications for the priority of reform efforts. Finally they argue that maintaining political stability, keeping crime under control, and undertaking financial sector reforms to relax financing constraints are likely to be the most effective routes to promote firm growth (p. 29). When discussing the role of finance in the growth of firms, the authors emphasise the impact of high interest rates as a constraining factor to the growth of firms. In addition to high interest rates, other factors related to that, such as collateral and the volume of paperwork are reported as constraining factors to the growth of firms. However, in some other studies (e.g. Carlin *et al.*, 2006) in which the same countries are part of the sample, other constraints such as taxes and regulations are found to be as important by firms across the entire sample of countries.

Another study which raises a number of issues in relation to the regression analysis between business environment factors and firms' performance is the one developed by Commander and Svejnar (2007). They have conducted regression analysis on the BEEPS dataset for 26 transition economies to assess the effects on performance of ownership, competition, export orientation and the business environment of the firm. The authors find that there is evidence suggesting that ownership and competition exert an impact on performance, but the results differ too much of the earlier literature in that foreign ownership of firms has a positive effect on performance but domestic private ownership does not (p. 34). Further on they argue that export orientation of the firm is found to have a positive effect on performance in simple specifications but the effect disappears once firm ownership is taken into account (p. 34). According to their findings, variations in the business environment at the level of the firm within a country do not seem to be important. The reason behind this lies in the fact that firms either get around these constraints at relatively low-cost and therefore the effect is not detectable in the data, or managers who face severe constraints compensate for the presence of these constraints and report lower severity than is actually the case (Commander and Svejnar, 2007). This confirms the idea that the business environment is a country-level characteristic (Carlin and Seabright, 2007). Moreover, the authors point out that, based on their sample of only 26 countries, regression analysis is unable to distinguish which elements of the business environment matter most – or indeed to distinguish between business environment and other country characteristics.

Based on relative importance of different constraints on growth and how these vary across countries and across firm types, Carlin *et al.*, (2006) reported some interesting patterns.⁶⁴ **Firstly**, physical infrastructure is rarely put as a binding constraint among countries in the sample. For instance, land access is mentioned by some African countries, transport by some poor or war-torn economies like Sri Lanka and Kosovo, and in Ireland. Telecoms infrastructure is never brought into attention as a

⁶⁴These authors used the PICS and BEEPS firm-level surveys conducted by the World Bank and the EBRD from over 20,000 firms in about 60 countries to identify constraints on the growth of firms. The evaluation of business climate factors was based on subjective measures, either by allowing managers to pinpoint the factors that have impact on firm performance or by tabulating objective indicators such as those for the numbers of procedures required to start a business or cash a cheque in each country in the sample. The dataset consisted essentially of the responses of firm managers to questions requiring them to state the degree of severity of a number of obstacles to the operation of their business. The general aim of this survey was to estimate the role of business climate factors in the growth of firms across countries by using public good framework.

binding constrain, which is in contrast with the outcomes produced by Dollar *et al.*, (2005). Electricity on the other hand is mentioned by some African countries as well as two transition countries (Albania and Kosovo). Secondly, constraints related to licensing and customs are mentioned as especially prevalent in the Commonwealth of Independent States where tax administration is also of particular concern.⁶⁵ Thirdly, crime and/or corruption by contrast show up as binding constraints in almost all countries except the OECD: crime in only one-quarter of countries and corruption in 70% (Carlin *et al.*, 2006). Fourthly, from the variety of constraints to growth, firms have identified seven of them which were ranked as of greater than average importance for all countries included in the sample: anti-competitive practices, tax rates and tax administration, access on and cost of finance, and policy uncertainty and macroeconomic stability. Among all of them, the burden of tax is virtually universal. South East European countries have ranked policy uncertainty as the most binding constraint. Fifthly, labour regulations emerge as binding constraint for prosperous economies only. Further on, the survey reports that more efficient firms are especially constrained by poorly functioning customs regulations and inadequacies in the legal system and that it is private rather than state-owned firms that are the likely beneficiaries of improvements in macroeconomic stability and policy predictability as well as in the functioning of the legal system and of reductions in corruption and crime (Carlin *et al.*, 2006: 31).

5.1.3. Regional and country studies related to business environment factors

As stated previously, when analysing the relationship between business environment factors and the growth of firms, researchers use three sources of evidence from which regional and country-level studies is one. The cross-country regression methodology rests on the assumption that there is a common technology that transforms inputs, including business environment, into outputs (Carlin and Seabright, 2007). The outcome of this methodology is the average – the model based on average score. According to this methodology, countries that perform poorer than average, should attempt to improve the business environment factors in favour of firm growth. However, this methodology does not answer the question whether the average score suits the specific condition of specific countries. This question can partly be answered by the evidence collected by the use of a manager's survey. As Carlin and Seabright (2007) point out, regional and country-level studies can be very good in suggesting causal hypotheses but very bad at testing them, since usually there is little basis for evaluating the hypotheses other than a general inclination or disinclination to take the author's word for it (p. 24). Quite often different researchers may have similar variables as subject of discussion and still reach incompatible conclusions and in this way cause confusion.

There are many research studies devoted to regions and individual countries.⁶⁶ From the regional type of studies, for the purpose of this study is picked up the study developed by Bartlett and Bukvic

⁶⁵The Commonwealth of Independent States (*CIS*) formed when the former Soviet Union dissolved in 1991, and made up of: Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

⁶⁶Pissarides *et al.* (2003) exploring barriers in Russia and Bulgaria, Bicanic (2001) in Croatia, Franicevic (2002) in Croatia, Aidis (2005) in Lithuania, Bohata and Mladek (1999) in the Czech Republic, Xheneti (2006) and Hashi (2001) in Albania, Hashi and Toci in Kosovo, Bartlett and Bukvic (2001) in Slovenia, Glas *et al.* (2000) in Slovenia and Croatia, and Krasniqi (2007) in Kosovo.

(2002). The authors investigated the impact of business environment factors on the growth of firms in the South-East European countries, with focus on Bosnia, Macedonia and Slovenia. The research was designed to uncover the extent to which small and medium-sized firms policies in Bosnia, Macedonia and Slovenia had succeeded in dealing with growth barriers. The outcomes of the study show that financial barriers in these three countries were considered to be extremely serious by survey respondents. Especially the high cost of credit was perceived to be the most important barrier to growth. Other aspects relating to finance such as high collateral requirements, were mentioned to be high up on the agenda compared to other barrier variables. With respect to the regulatory framework in which firms interact with their customers, government can also have an influence on the growth of firms. Other constraints to growth identified in this study include complicated laws, rules and regulations concerning small firms, tax-related barriers, social capital, trust and network ties between firms. The research outcomes in these countries showed an increase in uncertainty and the cost of doing business. The major barrier was found to be the one related to the late payments of bills. This problem ultimately caused the chain of reactions giving rise to a generalised liquidity crisis. When adding up the low level of efficiency of the judicial system, especially in Bosnia and Macedonia, then perhaps it could be understood why firms rank the late payments of bills as one of major barriers to growth.

There is a strand of literature which discusses the state, and the impact, of business environment factors in transition economies. Access to external finance is one of the most important aspects discussed by this literature (Pissarides, 1999; Lizal and Svejnar, 2002; Richter and Schaffer, 1996; Filatotchev and Mickiewicz, 2006).

Institutional constraints to the firm activity in transition economies were first highlighted by Baumol (1990), and have been explored in recent years by a number of research studies including McMillan and Woodruff (1999, 2002), De Soto (2000), Djankov *et al.* (2004), and Sobel (2008). Several institutional aspects are argued to affect the firm growth such as the strength of legal enforcement, administrative barriers to entry, the prevalence of extra-legal payments and a lack of market-supporting institutions. In their study Johnson *et al.* (2000) find that the entrepreneur's belief in the courts' inability to enforce contracts efficiently has a negative effect on employment growth, though this effect is not significant with respect to sales growth. Similarly Djankov *et al.* (2004) found evidence that Russian entrepreneurs have less confidence than non-entrepreneurs in the efficiency of the court system. According to Svejnar, (2002) the legal and institutional system which underlies a market economy was immature in most of transition economies, having only been introduced in many countries for the first time post-1990. There is a difference between the countries of Central and Eastern Europe and those of the former Soviet Union. As Estrin *et al.* (2006, 2009) point out the CEE economies for the most part inherited a stronger legal, institutional and cultural framework from the perspective of operating a successful market economy. According to them this is so partly because many CEE countries had thriving capitalist economies in the nineteenth century and the inter-war period. In their study Bevan and Estrin (2004) stress that this initial advantage enabled these countries easier access to the European Union, during which candidate countries adopted the legal codes and institutions of the Union. In contrast, as Mickiewicz (2009) the rule of law in ex-Soviet countries was poor and therefore it was difficult to enforce voluntary contracts such as customers paying for the goods they had purchased or even firms paying workers their contracted wages.

Taxes are a common complaint by firms worldwide (Rosen, 2005). In transition economies the issue of taxes often is related to the costs created by an inefficient, inconsistent and/or corrupt system of tax collection, which in turn may substantially add to the costs of running firm activities (Aidis and Mickiewicz, 2006).

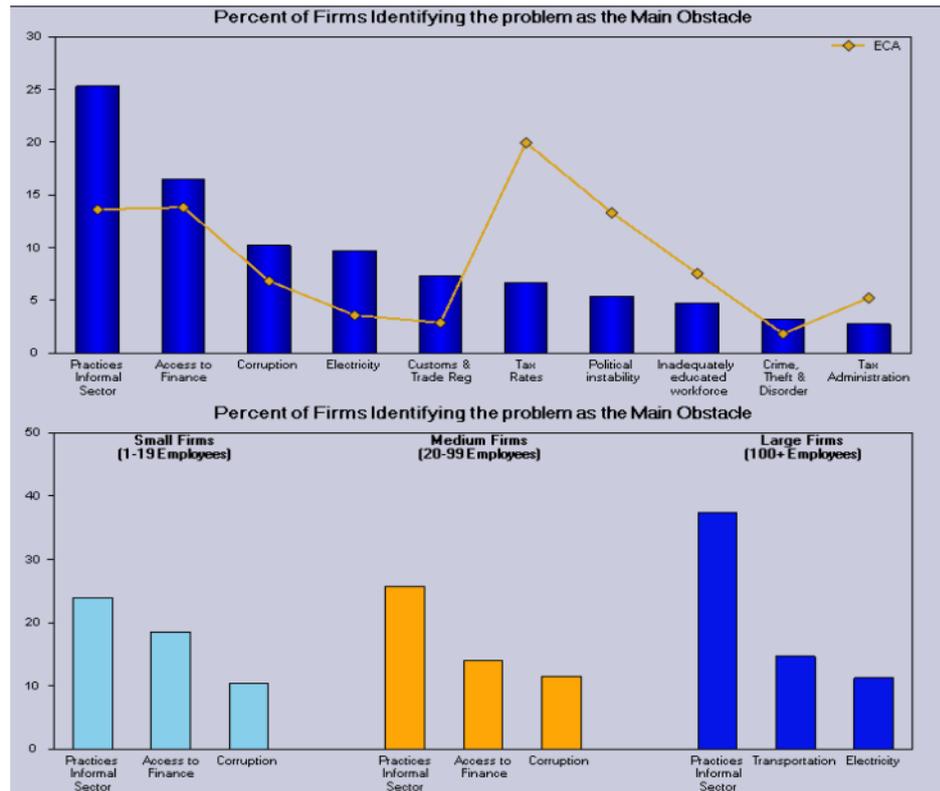
Human capital is another very important variable related to the firm growth (Davidson and Honig, 2003). There is evidence showing that transition countries fare relatively well in terms of formal measures of education, and CEE economies continue to invest a high proportion of GDP in education, even outperforming some West European countries (Barr, 2005). Also, Estrin et al. (2006) found evidence that transition economies typically have a high proportion of students in 'hard' subjects of science, mathematics and engineering.

The dimension of corruption is one of the most interesting institutional characteristics which is likely to have a significant impact on the firm growth and on entrepreneurship in general (McMillan and Woodruff, 2002). According to Aidis and Mickiewicz (2006) corruption has damaging effects on the entrepreneurial activity and firm expansion because it increases the level of uncertainty and reduces entrepreneurial gains. Corruption is often seen as one of the key outcome variable reflecting all institutional weaknesses in an economic setting (Treisman, 2007; Aidt, 2009), and as Tanzi, (1998) points out, it can be treated as a proxy for overall institutional quality. In evidence provided by Aidis and Mickiewicz (2006) shows that corruption has been an important obstacle to business expansion in transition economies.

In relation to studies dedicated to specific countries, the most relevant studies in this case are those focused to the Kosovo's economy. It is worth mentioning that most of research studies sometimes report contradictory outcomes in relation to firm obstacles to growth. Several surveys conducted by different institutions contradict those conducted by international organisations such as Productivity and Investment Climate Surveys (PICS), BEEPS, etc.

The most recent survey conducted in Kosovo by the World Bank was the one published in 2013. Below is the graph which provides the list of growth constraints broken down by large, medium and small enterprises operating in Kosovo.

Figure 5.1. Growth constraints in Kosovo as per firm perception



Source: The Enterprise Survey 2013

Research studies focused on Kosovo’s case sometimes provide contradictory outcomes in relation to firm growth constraints. In his study based on the surveys conducted by Riinvest Institute, Krasniqi, (2007) has identified three main growth constraints to the small and medium-sized firms: tax burden, unfair competition and access on finance. According to his findings the tax burden slows down the growth of firms through the cost of regulations, whereas unfair competition is mainly caused by corruption and the informal sector which increases the cost of doing business. Access on external finance is also listed as one of the constraints which emerges in form of higher costs and as such has negative consequences on limiting the growth potential of smaller firms. In his subsequent study, Krasniqi, (2012) has used a larger dataset from the same institute to investigate the determinants of the growth of firms. By using an econometric approach he considers four factors having an impact to growth of firms: firm-related factors, human capital factors, management strategy and entrepreneurial orientation of the firm, and external business environment factors. In relation to the first type of factors the author argues that size of the firm is crucial as well as the location of the firm. In other words, he finds evidence that smaller firms grow faster than larger ones and firms that operate in larger areas, specifically in capital city experience faster and higher growth rate. In relation to human capital factors, the main obstacles to growth are those related to training. The level of education and skills of managers of surveyed firms seemed to have an influence on the growth of firms. An interesting finding is related to the employees’ level of education which according to the evidence provided by this study does not seem to have any influence to the rate of growth. From external growth constraints, this study finds out that only corruption seems to have a negative impact on the growth, which according to the author indicates the weak level of the institutional framework in the country.

By using an institutional approach, Hoxha, (2009) in his study shows that informality in the economy seems to be one of the major obstacles to the growth of firms. In this category of growth constraints including unfair competition, corruption and the informal economy are the most critical elements. According to the author, the reason why firms have not identified any formal constraint to the growth of firms is probably is related to the post war period in the country which is characterized by the institutional vacuum, with lack of basic economic laws that would provide equal opportunities for all players in the market place.

A striking point in both these research studies is the fact that power outages do not emerge as one of the main growth obstacles, something that was found to be one of the major obstacles in the PICS and BEEPS given above.

Trying to explore the impact of informal and formal growth constraints for companies that do business internationally, Kutllovci *et al.*, (2012) find out that both of them have a significant influence on the growth of firms. In terms of formal barriers, they report that high taxes, fiscal policy, general environment, approach on regional and international markets, are seen to be the most binding constraints to growth of these types of firms. More specifically, they note that authorization issues, licenses, various certificates that need to be issued from respective institutions often take time and are unclear. The documents required in international trading take time and to be obtained since institutions that deal with them have not developed clear systems and processes yet. In terms of informal constraints, authors report that among most frequent obstacles mentioned by respondents include low levels of professionalism and ethics of officials in respective institutions, as well as poor enforcement of regulations.

Kunal and Kirkpatrick, (2009) in their research paper seek to provide a more comprehensive view on Kosovo's economic prospects. In order to identify the most binding constraints on economic growth and job creation, authors use a 'diagnostics' analytical framework. Their study is put in the context of the relationship between business environment factors and firm performance. In other words, through the methodology of "Growth Diagnostics", the authors tried to identify the most binding constraints for firm growth. The authors in the end conclude that limited access on finance, particularly for the smallholder agricultural sector and the poor provision of rural infrastructure, are the main obstacles to the growth of small and medium enterprises.

By summing up the key points of this section of the literature review one thing becomes apparent: there are many different findings in the literature, which sometimes contradict each other. The contradictions may arise due to the different questions raised by researchers, and/or probably due to the different methodologies used by them. Even within the same approaches and methodologies, researchers have arrived at different results. Research studies based on regressions often test the hypotheses that a particular set of institutions is important against the null hypotheses that no institutions are important, rather than against a rival hypotheses asserting the importance of different institutions (Carlin and Seabright, 2007). In this sense, in relation to relative importance, surveys based on the assessment of managers are more informative. Some authors, like Carlin and Seabright (2007), propose to treat findings derived from regression more as preliminary and complementary rather than substitutes or definitive and contradictory. According to them, regression methodology establishes the fact that institutions matter, but we are not yet sure how they matter, and that we need to refine our conjectures about the causal channels involved. This is

like saying “medical studies have established that diet is important for health, but we have no idea which is the best diet” (Carlin and Seabright, 2007: 27). Aiming at identifying factors that constrain the growth of firms, researchers have identified a varying range of culprits that impede their growth, and as previously stated they have used a varying range of methodologies. There are scholars who insist that researchers should stop acting as categorical advocates for specific approaches to growth (Rodrik, 2010). They should instead be diagnosticians, namely adapt approaches and methodologies that do not substitute but rather complement each other. Above all, according to the same scholars, researchers should use models which enable how to navigate through varying contexts and realities. The growth diagnostics approach claims to offer a more systematic process on how to contextualise the research, which in turn leads to the identification of binding constraints to growth of a specific economic setting. This approach is based on the combination of a simple theory and suggestive empirics (Rodrik, 2010). Therefore, in the following section will be analysed the main elements of the growth diagnostics approach, including its limitations, followed by the formulation of the theoretical framework which is used to analyse the impact of business environment factors on the growth of firms.

5.1.4. Why using the “growth diagnostics” framework?

The growth diagnostics framework was first developed by Hausmann, Rodrik and Velasco in 2005. This framework is based on the assumption that there may be many reasons why an economy or firms that operate in that economic setting don't grow, but each reason generates a distinctive set of symptoms. These symptoms serve as premises for a differential diagnosis through which a diagnostician tries to distinguish among potential explanations why an economy, or firms that operate in that economy do not grow.⁶⁷ This theoretical framework is founded on the three following assumptions. First, while the notion of development is relatively broad, the model of steady economic growth is the central challenge that, for instance, developing countries face. Second, when attempting to promote a certain growth model a researcher should take into consideration circumstances that reside on a specific economic setting; otherwise that model is unlikely to generate intended outcomes. Third, the best growth model may be the one which attempts to alleviate binding constraints rather than going after too many targets at once.

According to the authors that have developed this theory, there is a fundamental difference between growth theory and empirics and growth diagnostics. Growth theory usually uses one or more independent variables to predict the growth, and asks questions such as: does variable X, in the firm growth context this could be finance, predict the growth of firms of a typical (average) country which is randomly selected from a set of population? In contrast to that, a researcher who uses the growth diagnostics theory would formulate the following question: in a particular country, at a particular point in time, what are those constraints that prevent firms to grow? Though these two questions seem to be relatively distinct, they are not totally unrelated to each other. They are distinct because the reasons why firms do not grow in a particular economy are usually

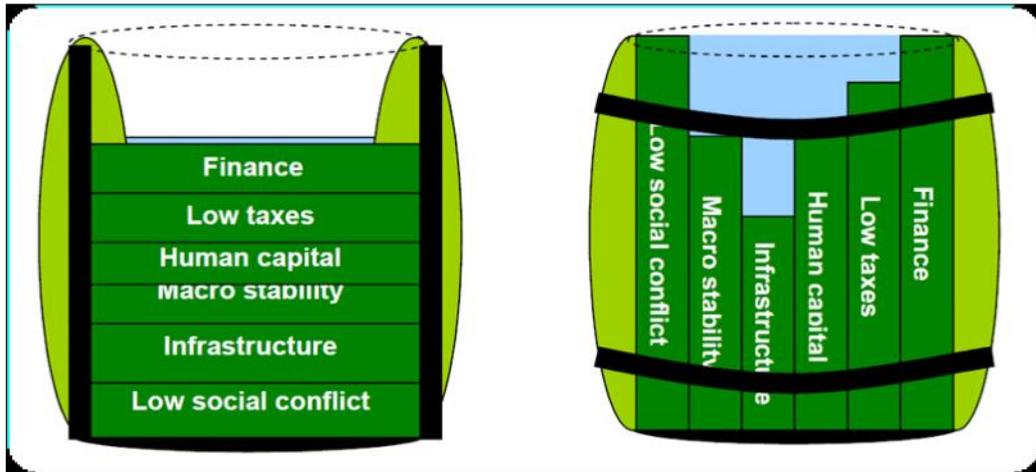
⁶⁷A decision making model used by clinicians. The clinician uses the information gathered from the medical history and physical and mental examinations to develop a list of possible causes of the disorder, called the differential diagnosis. The clinician then decides what tests to order to help refine the list or identify the specific disease responsible for the patient's complaints (Encyclopedia Britannica, the fifteenth edition).

heterogeneous. Growth of firms may be dependent on a potentially unknowable set of complex interactions between many aspects of the individual country and its environment (Hausmann *et al.*, 2008). By implication, while researchers may identify what happens on average in a sample of countries of a specific population, it may be never clear enough whether the case of the country in front of us may be comparable, or may fit into the average, or into the sample. The list of variables that influence the growth of firms may be large, and it may be difficult for a researcher to distinguish, for a particular country, which of them is most influential. Factors that constrain the firm growth may be of internal nature (human capital resources, organisational capabilities, or management practices), or alternatively, external factors (Carlin and Seabright, 2007).⁶⁸

The growth diagnostics perspective does not consider explanatory variables as substitutes, meaning that poor performance in one area always can be compensated by over performance in another area, or, the impact of any policy on growth is independent of the level of the other variables. Moreover this framework treats explanatory variables to growth as complementary rather than substitutes (Hausmann *et al.*, 2008). In other words, variables cannot substitute each other, instead, they can complement each other and only by doing so do they manage to enhance or emphasize each other's effects. Authors explain this logic by using the example of the structure of a barrel in Figure 5.2 given below. As can be noticed, the volume of liquid in the barrel placed on the left side depends on the width of all the wood slabs and the volume increases when we simply add a slab. Analogously, it could be said that any variable (constraint) removed, or improved in an economic setting influences the growth. The explanation for the second barrel placed on the right side is different. The volume of liquid in this barrel depends on the length of the shortest slab. The authors point out that there are two implications that derive from the latter explanation. First, the impact of a slab on the volume of the barrel depends on whether that slab is a binding constraint or not. If the barrel is not binding, then the impact is zero. The second implication rests on the fact that, if the constraint is binding, then, the impact will depend on the distance between the shortest slab and the next shortest slab. In other words, they say that the impact of a relaxation of a binding constraint is not just some estimated coefficient times the magnitude of the change, but if the change is large enough, the distance to the next binding constraint will matter zero.

⁶⁸Physical infrastructure, the legal system, the financial system, various aspects of the micro and macro-policy environment such as taxation, regulation, macroeconomic stability, and social factors such as crime and corruption in a society

Figure 5.2. How much will the barrel hold?



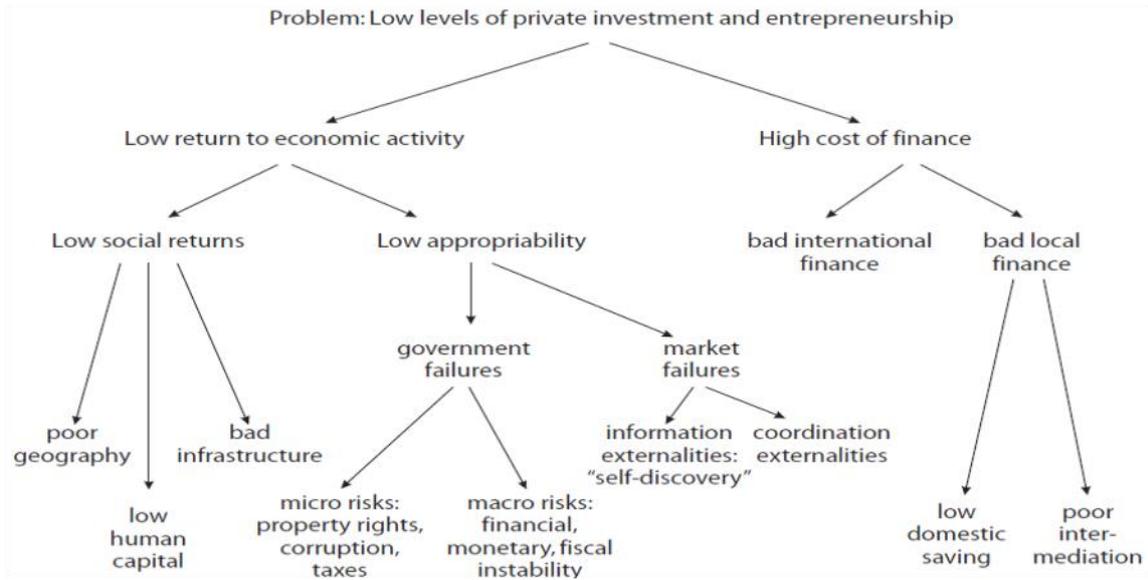
Source: Adapted from Hausmann et al., 2008

When analysing the constraints to growth of a poor economy such as Kosovo, one could be tempted to say that in such business environments everything seems to be binding. Hausmann *et al.*, (2008) would argue that it is true that the number of constraints in such economies is large. However, it is unjustified to think that all constraints at the same time are binding. It might be true for instance that that infrastructure looks poor, banks are not the best or education leaves much to be desired. But, further findings may indicate that, yes education system is poor, but other things may be so poor that high-skilled people either leave the country or drive taxis. Or, the banking system may look small; evidence suggests that banks at the same time may be full of liquidity and desperate to find sound customers to lend money at very sensible interest rates, but there are so few takers (Hausmann *et al.*, 2008).

The central problem for the growth diagnostics perspective is that one cannot know which is the right growth model of an economy we are working on (Hausmann *et al.*, 2008). The process is carried out through a level of ambiguity (Manski, 2001; Brock, Durlauf and West, 2003), and the objective is to have a rational prioritization of intervention.

This perspective is a top-down approach, because it analyses a very aggregate outcome such as the growth rate of an economy and goes down to diagnose its potential constraints that impede the growth process (Hausmann *et al.*, 2005). It purports to unveil the areas that might be the high payoff interventions in terms of growth. To do so researchers work with a decision tree model shown in the Figure 5.3 below.

Figure 5.3. A Growth Diagnostics decision tree



Source: Adapted from Hausmann et al., 2008

This growth model, as with any other growth model, is based on the principle that the rate at which a firm grows is a function of the difference between the expected rate of return, and the cost of capital as seen by private agents who accumulate those assets. The greater the gap between the expected returns to asset accumulation and the asset acquisition cost, the greater the investment efforts (Hausmann et al., 2008: 23). The greater the gap is the bigger the incentive to accumulate, and the higher the growth rate.

Since its first publication in 2005, the growth diagnostics approach has been widely adapted by many researchers. The vast majority of them have used this approach and methodology mainly to investigate binding constraints to the economic growth of individual countries.⁶⁹ It is worth emphasizing that there is no research study that has used this methodology to investigate the binding constraints to the firm growth. The only research study which is related to the investigation of binding constraints to the growth of firms is the one published by Carlin et al. (2006).⁷⁰ Though some results of this study are provided above, it is important to say that their findings contradict most of the previous findings in relation to how managers perceive binding constraints to the growth of their firms. For instance, their findings suggest that telecoms infrastructure is never an important policy priority for any country (something that contradicts conclusions of Dollar et al., 2005), transport is important only for some very poor countries, and electricity is the only form of physical infrastructure in some countries in Africa and South Asia; while crime and corruption, by contrast, are important in many countries, especially in Central and Latin America and weaknesses in

⁶⁹ Hausmann, (2005) on Tanzania; Hausmann, and Klinger, (2007) on Paraguay and Peru; Hausmann, and Rodrik, (2005) on el Salvador; Ianchovichina and Gooptu, (2007) on Mongolia; Kunal and Kirkpatrick, (2009); Carlin et al, (2006), etc.

⁷⁰ The purpose of this paper was to investigate the binding constraints to the growth of firms by using firm-level data of 20,000 firms for 60 countries. Though the authors have cited the growth diagnostics methodology as one of the methods that provides tools to investigate binding constraints to growth of firms, they in fact use Lagrangian approach to measure the cost of different constraints.

the administration of the tax system are of particular importance in the CIS; labour regulation emerges as a concern for relatively prosperous countries only (consider breaking into two sentences – it's very long). Further on, their findings suggest that more efficient firms are especially constrained by poorly functioning customs regulations and inadequacies in the legal system. Also their study points out that private rather than state-owned firms are the beneficiaries of improvements in macroeconomic stability and policy predictability as well as in the functioning of the legal system and of reductions in corruption and crime (Carlin *et al.*, 2006).

This approach has received considerable criticism by many scholars. Some of them argued that the GD is an unscientific framework. For instance Leipziger and Zagha (2006) argue that GD unlike growth regression analysis provides only a framework to formulate hypotheses on binding constraints to growth rather than a hypothesis on empirical tools to test them, and the empirical testing of hypotheses depends on researcher's ability to create plausible stories. Moreover, Nobel Prize laureate Mike Spence reportedly appraised the framework as a more "disciplined art" than a scientific approach, which allows for a more open ended analysis (Leipziger and Zagha 2006: 2). Criticising the model for being over concentrated on only one constraint, other authors stress that countries usually have more than a single binding constraint which hampers its growth. In this context, Rodriguez (2005) argues that under certain conditions it appears more favourable to reduce two binding constraints by half rather than focusing reform entirely on relaxing one constraint as far as possible. Further on, cited by Sartor (2007) Jeffrey Sachs is reported to argue that this theory might be a useful tool in a functional economy when countries investigate certain binding constraints in order to improve growth at the margin. Otherwise, according to him, economies in poor countries are so dysfunctional that marginally improving growth by concentrating on the most binding constraint will only produce modest returns at best and fail to deliver the big push that these countries purportedly need. There are other authors who dispute the key role of investments by pointing out that investments do not always bring economic growth (Fernandez –Arias, 2008; Felipe and Usui, 2008). On the other hand, Hausmann *et al.*, (2008) answer this critique by arguing that in the GD perspective asset accumulation is seen as an interesting area to search for symptoms of a problem because problems get reflected in investment behaviour, independent of the relative importance of such behaviour for growth. More practically, they point out that there are very few cases of countries where distortions are such that private investment is too high. Justin Lin (2012) recognises this framework as an important advance in growth analysis. Nevertheless according to him this model does not fully flesh out the notion of "binding constraint", and moreover the variable definitions are deliberately left quite imprecise, which makes it challenging to operationalise them.

Summing up, this approach and methodology provides useful means to analyse binding constraints to the growth of firms. Through integration of diverse and at times disjointed pieces of evidence from a variety of sources, this approach offers a considerable fertile area for research. However, as stated previously, this theory assumes that once external constraints are removed the innovative firms will inevitably emerge as drivers of growth. This research study argues that this is quite a heroic assumption as it assumes unlimited supply of entrepreneurship provided that external conditions are right, as well as assumes that capabilities for firm formation are in place. Nevertheless, organisations or firms are complex entities which do not necessarily grow automatically once external constraints are removed. There are varieties of intra-firm factors which inhibit firm formation and especially its growth and these should be accounted for. This study argues

that an extended growth diagnostics is needed that takes into account factors external to firm growth as well as factors internal to firm formation and growth. Therefore, in order to get a better perspective on the factors that constrain the growth of firms in a developing economy, in this study growth diagnostic is extended by another theoretical framework called the theory of innovative firm developed by William Lazonick (2013). This author argues that economic models used to analyse economic growth should incorporate the theory of the innovative firm, because only by doing so, researchers can manage to comprehend better which are enabling and constraining factors to growth. This theory places the main emphasis on social conditions in which firms operate. Proper social conditions support processes that generate higher quality products at lower unit costs (Lazonick, 2012), and vice versa. These social conditions will be analysed in another chapter of this thesis. The following section provides the theoretical framework used to analyse factors which, according to the growth diagnostics approach, represent the most binding constraints to the growth of firms.

5.1.5. Theoretical Perspective

In the formulation of a theoretical framework for studying the external factors that inhibit the growth of firms, growth diagnostics theory provides a useful model. By taking full account of a country's specific circumstances, this theory can build a more flexible framework to analyse binding constraints to the growth of firms. It was first proposed by Hausmann *et al.*, (2005, 2008). The central argument of this theoretical perspective is that private investment and entrepreneurial activity is essential for any country to experience growth. Private investment increases when agents (entrepreneurs) expect a high rate of return on asset accumulation, and when there is the availability of funds to finance their business projects. Therefore, growth is a function of the difference between expected rate of return on capital invested, and the cost of funds to finance business activities. This argument can be sketched through the following formula:

$$\frac{\dot{c}_t}{c_t} = \frac{\dot{k}_t}{k_t} = \sigma [r (1 - \tau) - \rho]$$

where a dot over a variable denotes the rate of change over time, and where other definitions are as follows:

c = consumption

k = capital

r = the rate of return on capital

τ = the tax rate on capital, actual or expected, formal or informal

ρ = the world rate of interest

σ = elasticity of inter-temporal elasticity in consumption

In addition, the private return on capital r is given by

$$r = r(a, \theta, x)$$

Where

a = indicator of total factor productivity

x = availability of complementary factors of production, such as infrastructure or human capital.

θ = index of externality (a higher θ means a larger distortion).

According to Hausmann *et al.*, (2005, 2008), these two equations summarize the possible factors that can affect growth performance. An exercise of growth diagnostics simply consists of reviewing and analysing these factors to ascertain which of these are the most binding constraints on growth. The challenge is to identify, reveal factors (including market distortions and policy wedges) that are likely to matter most for growth.

This theory not only provides the means to investigate factors that externally inhibit growth, but also provides techniques which identify which factors are more binding at a particular time and for a specific country.

There are three classes of variables which must be considered when investigating the reasons why there is a low rate of private investment. The first class of variables are related to **low social returns** (geography, low human capital, bad infrastructure). The second class of variables are related to **low appropriation** represented through government failures (corruption, taxes, crime, judicial system, political stability, uncertain economic policies, regulations), and market failures (information failure, coordination failure).⁷¹ The third class of variables is related to **cost of finance**, which may be a result of poor access on international finance (country risk, credit rating) or poor local finance (poor intermediation, access on and cost of finance, low domestic savings).

All this can be reformulated as the following: the growth of firms depends on the rate of return and real interest rates. Assuming that when the rate of expected return is low there is little incentive for entrepreneurs to invest; the legitimate question that arises is what causes the rate of return to be low? Is it caused due to poor complementary factors such as bad geography, weak infrastructure, or unavailability of human skills? Or, is the low rate of return a result of low level of appropriation i.e. high level of corruption, crime, customs rate, high taxes, or as a result of market failures, that is, information failure and coordination failure. On the other hand, it could be assumed that entrepreneurs may have plenty of business projects, but there are not sufficient funds to finance their projects, or/and the cost of finance is high. The high cost of finance may be due to poor access on international finance (primarily due to the macro policy stability), or poor local finance and all that causes interest rates to be high.

The following statement represents the underlying logic for designing and conducting this study. Despite increasing empirical evidence on the effects of business climate factors on growth of firms, derived from different sources, none of them provides conclusive explanations about the factors that constrain the growth of firms in a particular country (Hausmann *et al.*, 2008). Moreover, quite

⁷¹Information failures are defined as the failure of firms to “discover” which products they can produce at low enough cost to be profitable and competitive.

Coordination failures are defined as the failure of the market to respond to potential investors’ demands for a diverse set of services.

often the results produced by researchers contradict each other. This would seem to suggest the importance of getting the empirical research more focused and based on local circumstances, which is embedded in the logic of the Growth Diagnostic framework. This model is based on the logic that the growth is dependent on private investment (rate of return). If private investments are low (rate of return is low), then this is either due to low return to economic activity, high cost of finance, or both of them.

The research question related to this chapter is:

What are the business environment binding constraints to the growth of firms in Kosovo?

The hypothesis related to this chapter is:

H. The growth of firms in Kosovo is constrained by poor complementary factors, represented through poor infrastructure and inadequate availability of human capital, market failure manifested through, information externalities and coordination externalities, government failures, represented by high level of corruption, crime, custom tariffs, taxes, regulations, or cost of finance represented through poor access on international finance (country risk, credit rating), poor local finance (poor intermediation, access on and cost of finance, low domestic savings).

5.2. The methodology

The methodology used in this chapter builds on the growth diagnostics theory proposed by Hausmann *et al.*, (2005). This theory argues that there might be many reasons why firms do not grow, but each reason generates a specific set of symptoms.⁷² These symptoms then constitute the basis for differential diagnosis through which, based on several sources of empirical evidence, syndromes (are attempted to) can be distinguished.⁷³ The methodology applied provides strategies and methods to find out what these symptoms and syndromes are.

The analysis employed here draws on the background information provided in the Chapter 2 where the economic and political profile of Kosovo is provided. This information provides an understanding on the overall business environment in the country. The background information provided probably does not add up to a diagnostic process, but it can still establish important stylised facts for which a potential diagnosis will need to account (Hausmann *et al.*, 2008).

Building on the data provided in the profile of the country, the process of analysis was carried out through the decision tree. The first aim was to examine and identify symptoms. However, as authors argue, the decision tree represents only a heuristic device and as such is not taken as definitive or fundamental. More precisely the decision tree is only a first argumentative framework; it represents the root cause analysis diagram and as such is read from top to bottom, and not side to side, or bottom to top (Hausmann *et al.*, 2008). As is indicated in the section on the theoretical framework,

⁷² By symptom is understood a feature that is associated to a specific variable, for instance low level of domestic savings is regarded as a symptom of high interest rates.

⁷³ A syndrome represents a group of symptoms that consistently occur together or a condition characterized by a set of associated symptoms.

the central assumption of the diagnostic perspective is that **low growth is primarily a function of the low rate of private investments**. If this assumption is taken as true, then a logical question to be raised is why is that so? To investigate the roots of low rates of private investment the diagnosis process was carried out through three broad cause factors: high cost of finance, low appropriation or harvesting of profits, and low provision of complementary factors. In other words, entrepreneurs may not be willing to invest because the cost of capital to start or expend their business is high, because they may perceive that appropriation of profits is low, or because the complementary factors such as physical infrastructure, human capital resources are poor.⁷⁴ All these presuppositions are put forward under the assumption that firms possess adequate internal capabilities, as a crucial factor to the growth of firms.

Identification of symptoms enables the assessment of the tightness of different constraints to the growth of firms. However, in order to propose a theory or an explanation for the existence of binding constraints, the process of diagnosis is carried out through a logically consistent causal chain that accounts as much as possible for the facts observed (Hausmann *et al.*, 2008). This is the **second step** which attempts to provide a causal story explained in the form of **syndromes**. Once syndromes are posited, their soundness is checked by deriving other symptoms. This process is repeated until the diagnosis is settled on a well-supported identification of what the binding constraints to growth are and why they are present (Hausmann *et al.*, 2008: 82).

This methodology tends to be pragmatic with respect to the kind of evidence used in the quest for binding constraints. The empirical evidence used to test the hypotheses is taken basically from two different sources. The **first source** of evidence is taken from international surveys which create indices to assess the relative importance of countries in a widening set of dimensions.⁷⁵ The main purpose is to measure the performance of the country in a comparative manner, and by putting it in the context of 5 other comparator countries. Such diagnosis provides a very useful feedback about a country's performance in various political and economic indicators relative to what seems to be feasible (Hausmann *et al.*, 2008).

The **second source** of data was obtained from the Riinvest Institute in Kosovo. The dataset consists of a sample of 600 business firms (see Appendix G).

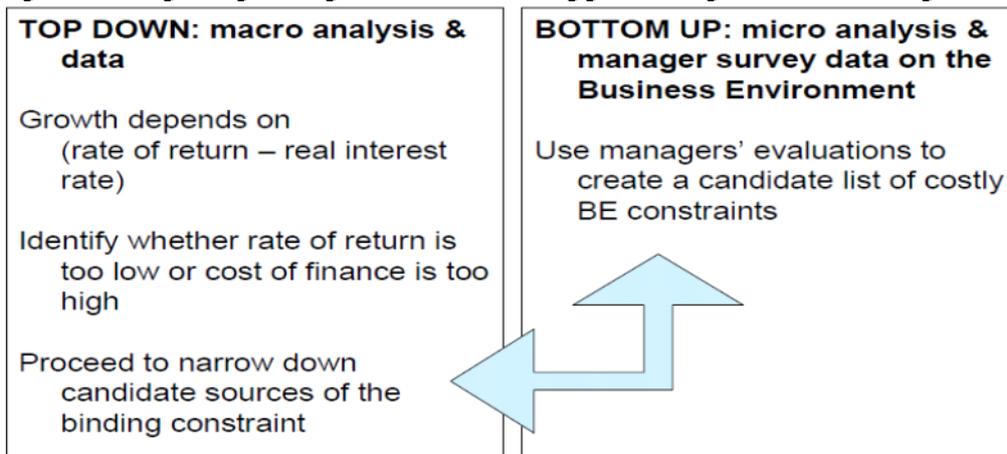
Fundamentally the "Growth Diagnostic" is a top-down approach. However, supplied with the bottom-up survey data from managers, and by using manager's perceptions on what they view as the growth constraints for their firms, the process of diagnosis enables the creation of a candidate list of costly business environment constraints by including the manager/owners perspective, too. Figure 5.4 shows in a schematic way how these two perspectives will be combined:

⁷⁴ By appropriation is meant the environmental factors that govern a firm's ability to capture profits.

⁷⁵ Freedom House, the World Economic Forum, Transparency International and the World Bank, OECD, etc.

Indicators on the voice and accountability, political stability, rule of law, regulatory quality, control of corruption, and government effectiveness, indicators on the efficiency and costs of business regulations in over 170 developing countries based on standardized pre-selected transactions, a mix of subjective indicators (e.g. ranking of constraints) and objective indicators (e.g. how many power outages last year) (Hausman *et al.*, 2008).

Figure 5.4. Diagnosing binding constraint combining growth diagnostics with manager survey data



Source: Adapted from Carlin and Seabright (2007).

Though the GD approach provides a well-structured methodology to think about why there is a low level of private investments and entrepreneurship, there are some limitations related to this framework. **First** limitation is related to the identification of symptoms/signals. An underlying idea of this framework is to find symptoms/signals that guide the diagnostics process. The process requires searching for both price and non-price signals, specifically the shadow resource prices. The process of measuring shadow prices is not easy, and sometimes the indirect evidence for judging the scarcity of a resource is inevitable. **Second**, the GD approach assumes the main growth problem is low level of private investment and entrepreneurship. However, growth may result from public investments as well (OECD, 2009; Sutherland *et al.*, 2009). **Third** limitation related to the GD methodology lies in its static nature. This methodology is centered on constraints that are binding today, but not necessarily in the future. However, the problem of many economies, particularly in developing countries such as Kosovo, is not how to start growth but how to sustain the growth process. The key element is to look at growth factors primarily from the dynamic perspective, namely what makes growth of firms sustainable. More limitations on the GD approach and methodology are provided in section 5.1.4 page 146.

By using two types of statistical methods/techniques, the process of diagnosis was extended to correlation and regression analysis. The Spearman rank-order correlation technique is used to measure the strength of the relationship between business environment variables. The binary logistic regression was used to predict the variation of a dependent variable given one or more independent variables (Kleinbaum and Klein, 2002). More detailed information about the logistic regression model, its advantages and its limitations is provided in Appendix I.

5.3. Symptoms analysis using decision tree

The second step of analysis which is related to the symptoms analysis begins with the growth diagnostics decision tree, which organises the potential explanations. As many times repeated in this study, according to the growth diagnostics approach, the main problem to the growth of firms is the low rate of private investment. Therefore, the logical question to be raised here is: what is constraining private investments and entrepreneurship? In order to conduct the symptoms analysis related to the low private investment rates, the following assumptions can be formulated:

- First, it can be assumed that there are business projects, but low investment demand is associated with the inability to acquire the required financial resources to invest in such projects at a reasonable rate (Hausmann *et al.*, 2008).
- Second, it can be assumed there are sufficient financial funds and at reasonable cost, but private agents are not willing to invest either because the overall public goods are low (poor infrastructure, poor human capital), or because the proportion of the returns that could be privately appropriated is low. The latter constrain has to do with the situation where private agents fear that due to government failures or market failures, the expected returns could be dissipated by others either through planned or surprise hold-up problems.

In the quest to identify symptoms of the low level of private investment and entrepreneurship, the analysis will start with the right-hand side of the decision tree.

5.3.1. The right-hand side of the decision tree - financial stories

If it is assumed that there are plenty of investment opportunities that are privately profitable but finance is constrained (high interest rates), the logical question to be raised here is why that is so? Two stories can be constructed in relation to that: (i) interest rates are high because of inadequate access on savings, and (ii) interest rates are high because of the size of the financial system, namely the issue is related to the capacity to mobilise those savings (Hausmann *et al.*, 2008).

Arguing that inadequate saving is the cause of constraint, several symptoms need to be presented. First and foremost banks should be willing to remunerate saving at a high interest rate. If banks remunerate savers at a high real rate, it means that firms in the country find it harder to access on savings. The interest rates on deposits in Kosovo are not significantly higher than comparator countries in the region. However, as the Table 5.1 shows, business interest rates are significantly higher than in comparator countries.

Table 5.1. Interest rates on deposits and on business loans

	Year	Alb	Cro	Kos	FYROM	Mne	Srb
Household	2010	n/a	n/a	5.1	5.4	n/a	3.8
Deposits	2012	n/a	n/a	4.8	4.1	n/a	5.3
Business Loans	2013*	n/a	10.37	6.12	7.2	8.9	7.3
	2012	n/a	5.97	11.1	6.8	8.5	6.3

Source: World Bank (2012)

The interest rate spread is significantly higher than comparator countries. In 2011, the differential was 1060 basis points, falling to 1016 in 2012 (IMF, 2013). The spread is significantly higher when compared with the region, where the average is less than 400 basis points.⁷⁶

⁷⁶One hundredth of one percent, used chiefly in expressing differences of interest rates.

Table 5.2. Interest Rate Spreads (lending minus deposit rate), 2009 - 2012

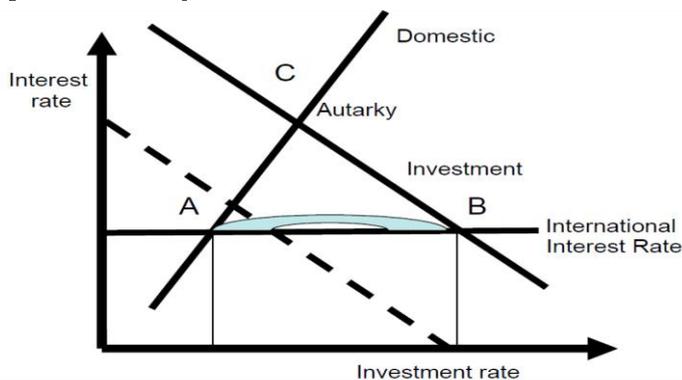
	2009	2010	2011	2012
Alb	5.9	6.4	6.6	5.5
Cro	8.4	8.6	8	7.6
Kos	10.1	10.9	10.2	9.1
FYROM	3	2.4	3	3.4
Mne	5.5	5.8	6.6	6.3
Srb	6.7	6	7.4	7.6

Source: World Bank (2012)

Based on these figures, an interim inference could be that high interest rates on loans and high interest spreads in the country are strong symptoms indicating that access on finance could be binding.

The second symptom related to the story of savings is that access on foreign borrowing is restricted. As Hausmann *et al.*, (2008) argue, saving can in theory move internationally, if capital mobility was perfect it could be expected that there would be the same interest rate in all countries. This is illustrated in the Figure 5.5 given below, in which investment and savings are compatible with the international interest rate (points A and B), while the difference is borrowed or invested abroad. In situations when a country has no, or very restricted access on international loans, supply and demand in that case has to be balanced locally and hence the interest rate is adjusted to a point such as C (Hausmann *et al.*, 2008).

Figure 5.5. The capital market



Source: Hausmann *et al.*, 2008

Is there a symptom which illustrates that Kosovo has little or very restricted access on foreign finance? One way to do that is through the country's sovereign risk or credit risk. Kosovo is still not listed on Standard & Poor, as one of the most prestigious organisations assessing the countries' sovereign risk. The fact that potential investors and credit organisations have no trustworthy address to measure the investment and credit risk represents a major drawback. This at the same time represents one of symptoms indicating that Kosovo has limited access on foreign finance, and obviously increases the cost of funding from foreign creditors, due to the fact that foreign creditors must apply a high risk premium.

Kosovo is eligible to use the World Bank's International Development Association's (IDA) support. However, by Trading Economics, Kosovo is rated as 15th in terms of credit rating, which is among the

worst in the world.⁷⁷ Therefore, based on this criterion the country does likely not meet IBRD creditworthiness requirements.

Table 5.3. Credit ratings of Kosovo and comparator countries

	Year	Alb	Cro	Kos	FYROM	Mne	Srb
S & P	2010	B+	n/a	n/a	BB	BB	BB-
	2012	B+	BBB-	n/a	BB	BB-	BB-
Trading Economics	2010	n/a	n/a	n/a	n/a	n/a	n/a
	2012	35	48.85	15	47.5	40	40

Source: S&P and Trading Economics sites – www.tradingeconomics.com

In the indicators related to government performance provided by the World Bank, Kosovo is ranked quite low indicating the level of investment risk. Another indicator which could explain the level of interest rates is the trend of gross domestic savings. The Table 5.4 below shows that despite the fact that the negative rate has fallen from comparatively high levels earlier in the decade, Kosovo continues to have very unfavourable rates of domestic savings in comparison to comparator countries (outside of Montenegro). According to the GD theory, this is another symptom indicating why the level of interest rates is so high in the country.

Table 5.4. Gross domestic savings, 2004 – 2012 (per cent of GDP)

Gross domestic	2004	2005	2006	2007	2008	2009	2010	2011	2012
Alb	2	0	1	4	6	4	4	3	7
Cro	21	21	23	22	23	21	21	21	20
Kos			-11	-10	-10	-6	-5	-5	-5
FYROM	2	4	4	6	2	4	7	8	6
Mne	1	0	-4	-8	-14	-6	-6	-6	-6
Srb	2	3	3	5	3	5	7	10	

Source: World Bank (2012)

The search for other symptoms can be extended to other factors, such as the size of the finance system. So, with regard to the financial intermediation problem, the first symptom to be analysed is a wide spread between deposit and lending loans. As discussed above, Kosovo has the widest spread in the region. There are four separate reasons that can explain this difference: high operating costs, high taxation of financial intermediation, high risks, or high profits (Hausmann *et al.*, 2008).

The wide spread of interests' rates between deposits and lending loans is seen to be as a result of market bank inefficiencies, such as high transaction costs and asymmetric information (Stiglitz and Weiss, 1981). The main transaction costs included here are those related to selecting, analysing the quality and monitoring of borrowers. The higher these inefficiencies are the higher the interest spread will be. In last two years, the average operating cost ratio for the three most profitable banks in the country is around 55%.

⁷⁷Trading Economics provides information for 196 countries including historical data for more than 300.000 economic indicators. <http://www.tradingeconomics.com/>

In terms of the size of the banking system, relative to the population, the number of banks operating in the market is the lowest one in the region, excluding Serbia. As stated above, 90 per cent of the market is controlled by four banks with foreign capital. These banks have been accused of having excess profits over a long period of time, and having a monopolistic position in the market. As a matter of fact, figures given below indicate that banks in the country enjoy higher profits relative to counterparts operating in comparator countries. Return on assets (ROA) and return on equity (ROE) show that banks in Kosovo enjoy greater profits compared to comparator countries. Probably it can be inferred that the small number of banks which decreases the bank competition is one of the symptoms of why interest rates are high compared to comparator countries.

Table 5.5. Distribution of banks per population

Country	No. of banks	Banks/population	ROA	ROE	Req. Res. Ratio
Albania	16	176.3	0.3	3.8	n/a
Croatia	34	129	0.9	4.8	n/a
Kosovo	9	196.2	0.7	7.2	10%
Macedonia	17	131.6	n/a	n/a	n/a
Montenegro	11	56.4	0.18	n/a	n/a
Serbia	32	224.6	0.4	2.1	n/a

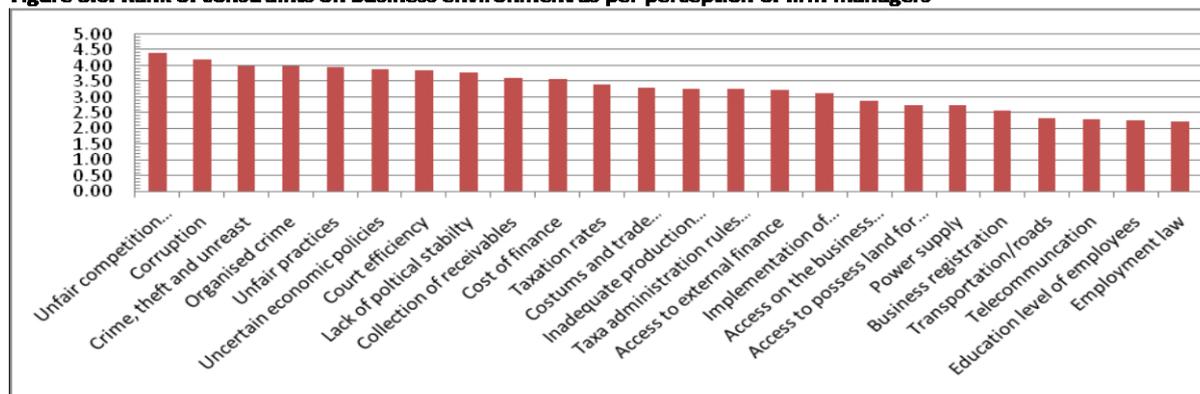
Source: Annual reports of central banks (2014) of respective countries.

5.3.2. Micro analysis and manager survey findings on the financial intermediation story

One of the most common approaches used to assess the binding constraints to the growth of firms is to ask managers what is the biggest obstacle to their business activities. In April 2013 Riinvest Institute conducted a survey asking managers of 500 firms to rank a series of business environment constraints on a five-point scale ranging from “no obstacle” to a “very severe obstacle”. Managers of firms were asked to rate 24 different areas on the above mentioned scale.

What light is cast on the manager’s diagnosis by the business environment rankings? The results suggest that the biggest constraints include unfair competition, corruption, crime, theft and unrest, followed by unfair practices, and uncertain economic policies. The cost of finance is ranked as 10th with the score 3.56. Among 24 different areas, access on finance is viewed as a less problematic obstacle, contradicting the World Bank survey which has listed the access on finance as the second binding constraint.

Figure 5.6. Rank of constraints on business environment as per perception of firm managers



Source: Riinvest Survey, 2013

However, the story on interest rates on savings and specifically the findings on the wide spread between deposit and lending loans indicate that Kosovo stands clearly above (high interest rates on deposits and loans) other countries in the region. Because of a weak credit rating (the country is either not included by S & P, or the rating is quite unfavourable, e.g. Trading Economics), and poor government performance indicators (World Bank, 2014), Kosovo has quite a restricted access on international finance. This, along with high interest spreads has kept the cost of finance high for a long time. Consistent with international rankings and with the manager’s perceptions identified by the survey, can it be argued that these risks are reflected in the high cost of finance? Is there any correlation between crime, uncertain economic policies, lack of political stability and the high cost of finance?

Intending to find out the level of correlation between the cost of finance and the other variables related to government performance, a Spearman's Rank Order correlation was performed. The results suggest that there is a strong, positive correlation between all the variables, with a high level of statistical significance – p value = 0.00.

Table 5.6. Correlation between cost of finance and appropriability factors

Cost of finance	r_s	p
Uncertain economic policies	0.27	0.000
Rule of law	0.27	0.000
Lack of political stability	0.31	0.000

Source: Riinvest Survey, 2013

A similar exercise was conducted to examine the relationship between access on external finance and these three factors and the results are similar, showing a strong, positive correlation between variables with a high level of significance.

Table 5.7. Correlation between access to external finance and appropriability factors

Access to external finance	r_s	p
Uncertain economic policies	0.25	0.000
Rule of law	0.22	0.000
Lack of political stability	0.24	0.000

Source: Riinvest Survey, 2013

In order to analyse whether these factors predict the cost of finance, the logistic regression statistical technique was used. This regression technique can predict categorical outcomes with two or more categories. All variables were subject of recoding of their original scores to meet one of the key assumptions and at the same time to ensure their suitability for this analysis. Therefore the Likert-scale scores were transformed into dummy variables - 0 = no constraint, and 1 = constraint.

The logistic regression was performed to assess the impact of a number of appropriation factors on the cost of finance in the country. More specifically the model contained three independent variables (uncertain economic policies, court efficiency and lack of political stability). The full model containing all predictors was statistically significant, $\chi^2(3, N = 499) = 60.928$ $p < .001$, indicating that the model was able to distinguish between respondents who reported and did not report the cost of finance as an obstacle. The model as a whole explained between 13.5% (Cox and Snell R square) and 18.3% (Nagelkerke R squared) of the variance in cost of finance. As shown in the Table 5.8 below, all three independent variables made a unique statistically significant contribution to the model. The strongest predictor of reporting the impact on the cost of finance has political stability factor ($p < .000$), recording an odds ratio of 2.385. This indicated that respondents who had difficulty gaining external finance 2.3 times more likely to report a cost of credit as a problem than those who did not have difficulty, controlling for all other factors in the model. The odds ratio for two other variables were less, namely for rule of law 2.092 and for uncertain economic conditions, 0.993.

Table 5.8. Logistic regression between cost of finance and appropriability factors

	B	S.E	Wald	df	Cox and Snell R sq.		Odds ratio	90% C.I.for Odds ratio	
					Nagelkerke R sq.	p		Lower	Upper
Uncertain economic conditions	.460	.238	3.730	1		.053	1.583	.993	2.524
Rule of law	.738	.227	10.555	1	13.5	.001	2.092	1.340	3.266
Political stability	.869	.234	13.846	1	18.3	.000	2.385	1.509	3.770

Source: Riinvest Survey, 2013

A similar exercise was performed to assess the impact of above mentioned factors on the access on external finance. As the Table 5.9 below shows, the highest impact on the access on external finance now was found to be the uncertain economic conditions variable ($p < .003$), followed by political stability ($p < .024$) and rule of law ($p < .028$).

Table 5.9. Logistic regression between access to external finance and appropriability factors

	B	S.E	Wald	df	Cox and Snell R sq.		Odds ratio	90% C.I.for Odds ratio	
					Nagelkerke R sq.	p		Lower	Upper
Uncertain economic conditions	.689	.236	8.560	1		.003	1.992	1.255	3.161
Rule of law	.500	.227	4.832	1	10.0	.028	1.649	1.056	2.575
Political stability	.524	.232	5.091	1	13.0	.024	1.689	1.071	2.664

Source: Riinvest Survey, 2013

It is worth emphasising that this study does not pretend to conduct an exhaustive analysis of factors that may have impact on the cost of finance in Kosovo.⁷⁸ However, the survey findings show clearly

⁷⁸ An important factor which has an impact on the interest rate is also the quality of collateral. This issue was also raised by bank representatives who stated that collateral used to secure the loan, the efficiency of court system in taking decisions in relation to liquidation of loan collateral, and specifically the culture of the population who hesitate to buy the property owned by banks, provides additional factors for the high cost of finance (Data extracted from Riinvest Institute survey 2011).

that business environment factors, particularly variables related to the government failures (uncertain economic policies, lack of political stability, and rule of law) have a significant impact on the cost of finance, as well as on access on external finance.

Findings from both sources, namely from international surveys as well as the manager's survey suggest that firms find difficulties in accessing the external finance. In particular, the cost of finance looks like being a strong constraint to the growth of firms. Therefore some of the most significant symptoms related to finance story include:

- Interest rates on loans are significantly higher than those in comparator countries
- Weighted interest rate spread significantly higher than in comparator countries
- With regard to credit risk rating, the country is not included in the S & P assessment, and this fact itself could exhibit restricted access on international finance. Other sources (e.g. trading-economics) rate the credit risk of the country significantly negatively
- Compared to comparator countries the rate of domestic savings is the worse in the region, excluding Montenegro.
- The size of the financial intermediation system in the country is smaller than in comparator countries.
- Profits of the banking industry in the country are quite high, which gives an indication that banks operate in a relatively monopolistic business environment.
- The above findings converge with the findings that emerged from the survey with 500 private firms conducted in 2013. Managers interviewed in the survey have observed that the cost of finance is among the top business constraints (Figure 5.6).

In the following section, the subject of analysis will be the other side of the decision tree, i.e. complementary factors (infrastructure and human capital), and appropriation factors (government and market failures).

5.3.3. The left-hand side of the decision tree – low return to economic activity

Now the process of analysis proceeds under the assumption that finance is not a problem, namely there is sufficient financial funds and at reasonable cost, but a private agent is not willing to invest because the proportion of the returns that could be privately appropriated is low. This is either because a private agent fears that due to government failures or market failures, the expected returns could be dissipated by others through planned or surprise hold-up problems, or due to market failures.

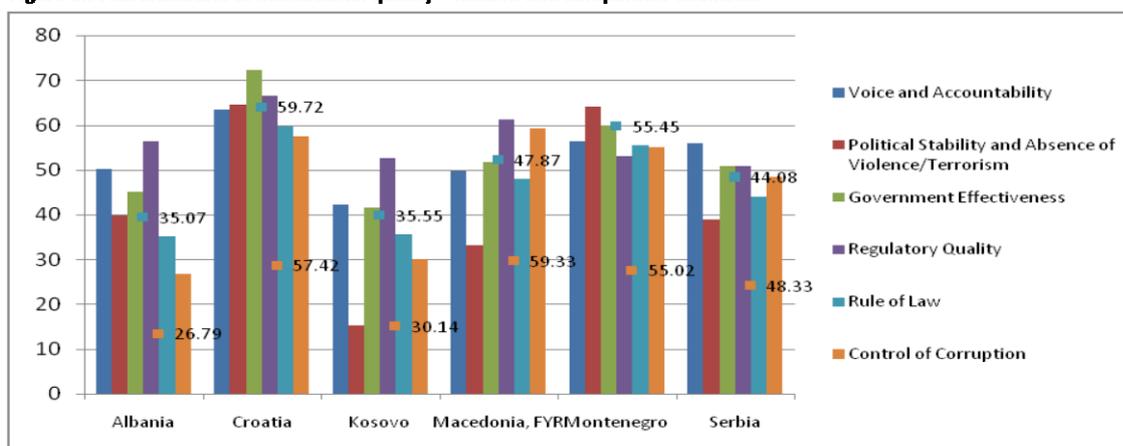
The key point at this step is to search for evidence that shows that returns to investments are going to be there and are not going to be dissipated by others through either planned or unplanned hold-up problems. With regard to government failures, the emphasis is given to microeconomic hold-up problems such as corruption, crime, rule of law (court efficiency), or macroeconomic hold-up problems such as uncertain economic policies, lack of political stability, monetary and fiscal stability. Prestigious international institutions publish their findings on all the above mentioned variables. For instance, the World Bank publishes six indicators of institutional quality that map into the

appropriation problems. These indicators include the rule of law, voice and accountability, political stability, government effectiveness, regulatory quality and control of corruption.

As the Figure 5.7 below shows, in terms of institutional quality factors, compared to other comparator countries, Kosovo is ranked quite unfavourably.⁷⁹ If indicators such as rule of law, or control of corruption are compared, for instance to Croatia, it can be noticed that scores associated to Kosovo are worse. Therefore it could be argued that the country is significantly more sensitive than other comparator countries to poor performance in most indicators.

A closer look shows that on the one hand the country has been able to formulate sound policies and regulations that permit and promote private sector development (World Bank 2012), while on the other hand the rule of law leaves a lot to be desired. This shows that compliance with laws and regulation is the main issue.

Figure 5.7. Six indicators of institutional quality – Kosovo and comparator countries



Source: The World Bank, the Worldwide Governance Indicators

With regard to taxation, when compared to other comparator countries, the rates are relatively low. Corporate income tax is similar to other countries while VAT is better than in most countries. Moreover according to the World Bank/Doing Business Indicators 2014, tax rates have been noted as one of the least problematic business environment factors in the country. This report has ranked Kosovo as 46 over 177 countries.

Table 5.10. Tax rates in Kosovo and comparator countries

Country	Corporate income tax	Value added tax (VAT)	Doing Bus. Rank (2014)
Albania	10%	20%	146
Croatia	20%	25%	34
Kosovo	10%	16%	46
Macedonia	10%	18%	26
Montenegro	9%	17%	86
Serbia	10%	20%	161

Source: World Bank, Doing Business Indicators (2014)

⁷⁹ **Voice and Accountability (VA)**– capturing perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media (World Bank, 2012).

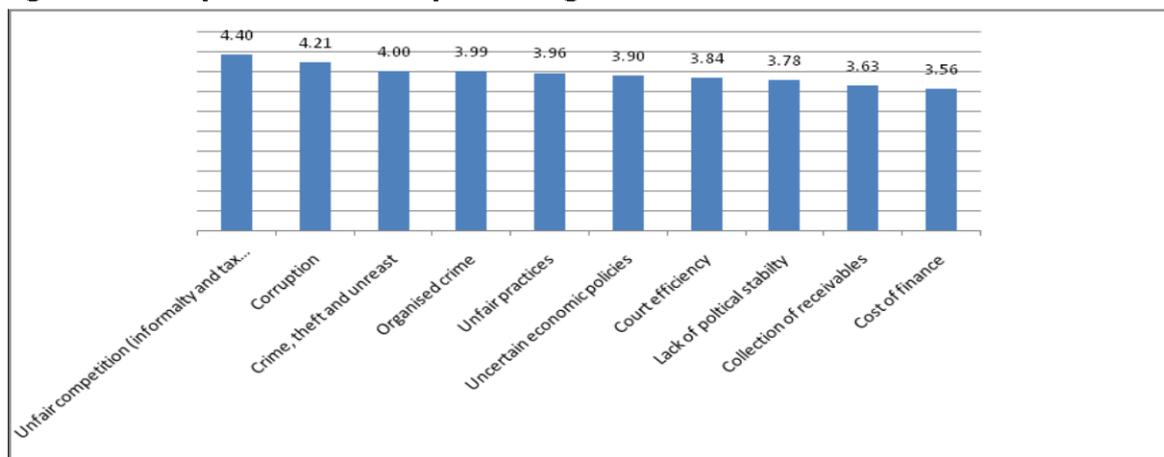
However, the micro analysis and manager survey findings highlight quite a different picture. Taxation rates and tax administration rules as obstacles have been scored relatively high by managers. The mean for tax rates is 3.41, meaning that 41.2 per cent of respondents view tax rates as an obstacle, while the mean related to tax administration rules is 3.28, and 40.00 per cent of respondents view the administration rules as an obstacle. These findings however may be a reflection of subjective nature of responses. There is an association between the above findings and the findings related to the corruption in the tax administration. When managers were asked about the level of corruption in the tax administration, 55 per cent of them responded positively. The relationship between tax, corruption in the tax administration, and the informal economy will be discussed in the subsequent section.

5.3.4. Micro analysis and manager survey findings on appropriation problems

The survey findings show that Kosovan entrepreneurs perceive the appropriation problems as the largest barrier to growth. Of the ten most highly ranked barriers, 8 of them are related to government performance. For instance, 70 per cent of interviewed managers perceive corruption as a very high obstacle, while unfair competition and informality is assessed the most severe obstacle (76 per cent assess as a very high obstacle). Other macro level variables also have very high scores (the means 3.90 respectively 3.78).

Corruption in this study is defined as the misuse or the abuse of public office for private gain and it is reflected in various forms and a wide array of illicit behaviour, including bribery, extortion, fraud, nepotism, graft, speed money, pilferage, theft, misappropriation, falsification of records, kickbacks, influence peddling, and campaign contributions.⁸⁰

Figure 5.8. Ten top obstacles ranked by firm managers



Source: Riinvest Survey 2013

⁸⁰ See Robert Klitgaard, "Strategies Against Corruption", <http://www.clad.org.ve/klit3.htm>.p.1

It is obvious that unfair competition and corruption are assessed by managers as the most harmful obstacles.⁸¹

While sources of unfair competition may be different, the survey findings suggest that unfair competition in Kosovo is primarily driven by two components, tax evasion and labour informality. The results of the survey indicate that 84 per cent of respondents consider unfair competition as the main business constraint. According to the survey findings, 34.4 per cent of total sales are not taxed, meaning that firms in Kosovo declare only 65.6 per cent of their sales.⁸² With regard to the other sources of unfair competition, as seen by the interviewed managers, their perception is that firms in the country report only 63 per cent of their employees to the tax authorities. One explanation of how firms manage to avoid taxes and declaration of employees is through the perception of firms about the corruptive practices in the central and local government, the judicial system and tax administration. On the question of whether they view the above institutions as being corrupted, 72 per cent of them believe that central government is corrupted, 68 per cent believe that local authorities are corrupted, judicial system 64, while tax administration was scored by 53 per cent.

In order to assess the relationship between unfair competition and other government performance indicators such as corruption, uncertain economic policies, court efficiency and political stability, a Spearman's Rank Order correlation was performed, as well as a logistic regression run to assess the predictability of appropriation factors to unfair competition.

The model used involves four main variables, namely corruption, uncertain economic policies, political stability and rule of law. The reason why this model is chosen is based on the fact that the relationship between competition, corruption and government performance is viewed as very important by many empirical studies (Nickell, 1996; OECD, 2004, Aghion *et al.*, 2005). Moreover, these studies have found evidence that corruption damages effective competition through weakening regulation and antitrust enforcement intended to correct market imperfections or by creating barriers to new entry or other restrictions on competition to preserve the privileges of established firms (OECD, 2010). This matters, because effective competition has been recognized as a powerful driver of productivity growth and innovation (Aghion *et al.*, 2005). Without the spur of competition, firms have fewer incentives to increase efficiency and are less prone to innovate, and above all may cause entrepreneurial talent and other resources to be diverted from genuine value creation and management quality to fall (Van Reenen, 2011). The relationship between governance indicators such as economic stability, political stability, and the rule of law can be exemplified by the comparison between developed and other countries. It is not by chance that all developed countries are characterised by high quality in all government indicators.

Some studies find that systemic corruption induces entrepreneurs to avoid it by operating in the informal sector of the economy (Biswas *et al.*, 2011). What causes the observed correlation between

⁸¹By unfair competition is meant when firms compete in the market on unequal terms, i.e. situations when favourable or unfavourable conditions are applied to some firms but not to others; or that the actions of some firms actively harm the position of others with respect to their ability to compete on equal and fair terms.

⁸²Q.18. What percentage of the sales of a typical firm in your area of activity would you estimate is reported to the tax authorities, bearing in mind difficulties?

corruption and the size of the informal sector is, however, unlikely to be straightforward, since it may be due to the existence of excessive and/or inappropriate regulation and other structural deficiencies like inefficient tax structures (Andrews *et al.*, 2011). Firms may respond to these impediments in different ways. Some may decide to get around taxes by paying bribes, or by operating in the informal sector.

The results show that the strongest correlation exists between unfair competition and corruption ($r_s = 0.39$) followed by lack of political stability ($r_s = 0.34$) and uncertain economic policies ($r_s = 0.31$).

Table 5.11. Correlation between unfair competition and other appropriability variables

Unfair competition	r_s	p
Corruption	0.39	0
Uncertain economic policies	0.31	0
Rule of law	0.27	0
Lack of political stability	0.34	0

Source: Riinvest Survey 2013

To assess the impact of appropriation factors on the unfair competition, the logistic regression was performed. The model contains five independent variables (corruption, crime, uncertain economic policies, court efficiency and lack of political stability). The full model containing all predictors was statistically significant (Chi-Square = 89.992, $p < .000$), indicating that the model was able to distinguish between respondents who reported and did not report unfair competition as an obstacle. The model as a whole explained between 19.7% (Cox and Snell R square) and 30.4% (Nagelkerke R squared) of the variance in the unfair competition. As shown in Table 5.12 below, three of four independent variables made a unique statistically significant contribution to the model. The strongest predictor of reporting the impact on the unfair competition has corruption factor ($p < .000$), recording an odds ratio of 5.023. This indicated that respondents who view unfair competition as an obstacle are 5.03 times more likely to report this as an obstacle than those who did not have difficulty about that, controlling for all other factors in the model. The odds ratio for two other variables were less, namely for uncertain economic conditions 2.92 and for political stability, 2.653.

Table 5.12. Logistic regression between unfair competition and appropriability factors

	B	S.E	Wald	df	Cox and Snell R sq. Nagelkerke R sq.	p	Odds ratio	90% C.I. for Odds ratio	
								Lower	Upper
Uncertain economic conditions	1.070	.336	10.161	1		.001	2.915	1.510	5.627
Rule of law	-.508	.344	2.184	1	20.0	.139	.602	.307	1.180
Political stability	.976	.330	8.748	1	30.04	.003	2.653	1.390	5.064
Corruption	1.614	.324	24.891	1		.000	5.023	2.664	9.469

Source: Riinvest Survey 2013

A Spearman's Rank Order correlation was also run to determine the relationship between corruption and four government factors. Also, the logistic regression was performed to assess the impact of government factors on the level of corruption.

The model used includes the four following variables: rule of law, uncertain economic policies, lack of political stability, and crime. The reason why this model is chosen rests on the fact that corruption involves unlawful behaviour of both the government officials and the private agents. If corruption thrives, that means it undermines the public's notion of the rule of law, which is a key element of public sector governance (Barro, 1991).

The statistical outcomes show that the strongest correlation exists between corruption and rule of law ($r_s = 0.48$), corruption and lack of political stability ($r_s = 0.47$).

Table 5.13. Correlation between corruption and other appropriability variables

Corruption	r_s	p
Uncertain economic policies	0.44	0
Rule of law	0.48	0
Lack of political stability	0.47	0

Source: Riinvest Survey 2013

A logistic regression analysis also was performed with the intention to assess the impact of a number of appropriation variables (uncertain economic policies, rule of law, and lack of political stability) on corruption. It was found that the full model containing all above predictors was statistically significant, Chi-Square = 125.213, $p < .000$, indicating that the model was able to distinguish between respondents who reported and did not report the corruption as an obstacle. The model as a whole explains between 26.0% (Cox and Snell R square) and 37.3% (Nagelkerke R squared) of the variance in corruption. It was found that three independent variables make a unique statistically significant contribution to the model, with the highest significance found for rule of law and uncertain economic policy ($p < .000$), followed by political stability ($p < .020$).

Table 5.14. Logistic regression between corruption and appropriability factors

	B	S.E	Wald	df	Cox and Snell R sq. Nagelkerke R sq.	p	Odds ratio	90% C.I. for Odds ratio	
								Lower	Upper
Uncertain economic conditions	.662	.284	5.449	1	26.0	.020	1.939	1.112	3.380
Rule of law	1.855	.281	43.653	1	37.04	.000	6.394	3.688	11.086
Political stability	1.011	.282	12.818	1		.000	2.749	1.580	4.782

Source: Riinvest Survey 2013

The problems with appropriation are not only linked with government failures, but also with market failures such as information externalities (self-discovery) and coordination externalities. Both could potentially be factors that constrain the growth of firms.

Information failures arise when firms fail to “discover” which products they can produce at low enough cost to be profitable and competitive. One way to look at this is the export structure of the country. There were some signs of increase in exports in 2010, however the structure of exports remain the same, namely, the majority of exports come from raw materials and unfinished products. The largest part of these is made up of scrap metals and mineral products. For instance, in 2010 such products represented 76% of total exports, worth €223 million.⁸³ In 2010 export growth was also achieved in leather and leather by-products and textile products.

Table 5.15. Total exports in value and volume

	2008	2009	2010	2011
Volume	45,577,073.34	51,760,660.84	67,019,906.04	49,196,749.80
Value	14,747,462.70	14,754,502.10	18,947,700.43	17,381,812.69

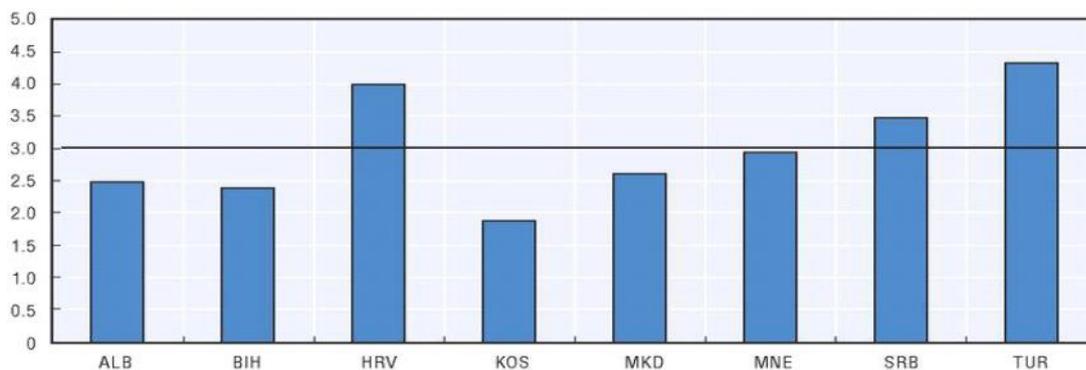
Source: Statistical office of Kosovo, MTI

⁸³Trade Exchanges of Kosova 2010, Ministry of Trade and Industry

It is true that the structure of exports is unfavourable and remains unchanged throughout the last decade. This is a sign that there is lack of self-discovery among firms. However, having in mind the small manufacturing base that exists in the country, and that we are dealing with an economy which is very slowly emerging out of a post-war situation, problems with informational externalities are unavoidable. For an economy which is not integral part of the world economy yet, arguing that problems with informational externalities are binding probably is not grounded.

Coordination failures arise when the market fails to respond to potential investors' demands for a diverse set of services. With respect to coordination failures, the SME Policy Index published by the OECD (2012) shows how small and medium-size firms in Kosovo face difficulties in representing their views to the government. This report provides information about whether government identifies and addresses market failures in the business service delivery. Despite some improvements reported, the SME support services provided by the government and formal consultations between the government and the private sector remains quite deficient compared to other comparator countries. In general terms, the lack of comprehensive, easily accessible and regularly updated information on issues relevant to SMEs, is seen to be a significant constraint for small businesses operating in the country (OECD, 2012).

Figure 5.9. Overall scores for Dimension 5a: Support services for SMEs and start-ups



Note: The line indicates the regional average of the policy dimension

Source: SBA assessment 2012

With regard to the relationship between the business community and central and local government the survey findings show that 55.5 per cent of respondents have no trust in local government, while 50.1 per cent of them have no trust in national governments. This is another symptom that illustrates that coordination activities and trustful relationship between these two bodies leave a lot to be desired. Therefore, this is a strong symptom which indicates the shortfall of coordination between local and central government and business community in Kosovo.

In conclusion, the findings related to appropriation factors suggest the following patterns:

- **First**, the macro-government factors such as fiscal and monetary policies are not indicated as binding constraints to the growth of firms in Kosovo. This is primarily due to the fact that the country has unilaterally adopted the euro as its own currency providing a strong monetary anchor. Consequently this places a premium on disciplined macroeconomic policies, makes

fiscal policy the main instrument for domestic demand management, and imposes limitations on the central bank's ability to act as lender of last resort (IMF, 2013).

- **Second**, it is true that firms in the country find difficulties to “discover” which are the products/services they can produce at low enough cost in order to be profitable and competitive. But bearing in mind that the country has a small manufacturing base, and the economy continues to struggle, emerging out of the transition phase, problems with informational externalities are unavoidable. Therefore, it could be argued that constraints related to information externalities are not binding, which is not the case with coordination externalities. There are clear symptoms that the government has failed to provide the required services to small and medium-sized firms. One of the striking findings that emerged from the survey is that the relationship between the business community and governments at both levels is quite unfavourable. Consequently, it can be argued that there is weak coordination between the government/s and the private sector (OECD, 2012).
- **Third**, in terms of government failures at a micro-level, there is clear evidence that the business environment is heavily constrained by ineffective and inefficient government institutions. As a result, corruption is uncontrolled, crime is seen as a lucrative area, due to the high level of tax evasion and the informal economy unfair competition/practices are seen as a major constraint, and rule of law is highly defective. Micro-manager survey and findings from other sources are consistent and fit the perception that low level of investment by the private sector is a function of government failures.⁸⁴

5.3.5. The left-hand side of the decision tree – complementary factors

According to the decision tree proposed by Hausmann *et al.* (2005), one of the reasons why firms are not growing could be the poor geography of the country in which they operate. In the case of Kosovo, probably it is not easy to argue that the geographical position of the country could have any significant impact on the growth of firms. Kosovo has a relatively favourable geographical position. Being located in the south east European region where the distance to the European Union market is not that far, suggests that on balance, Kosovo's geographical location cannot be considered as a binding constraint.

In terms of infrastructure, findings show that the country has done some improvements in the last five years. Major government spending has been concentrated on the improvement of road infrastructure. However, other infrastructure elements remain in poor conditions. Kosovo still has an out-dated power system. It is inadequate and unreliable, posing significant challenges to economic growth; frequent outages hamper investment and disrupt manufacturing, education, and health services (World Bank, 2012). A similar situation exists with the water supply.

In the report provided by World Bank in 2009 on business environment factors, electricity was ranked to be the highest constraint. However, since then the situation with electricity and other complementary factors has been improved considerably. The manager survey findings show that complementary factors are not seen any longer as major constraints. Compared to governance

⁸⁴Worldwide Governance Indicators, Transparency International, Doing Business Indicators

performance indicators, the findings suggest that the means of complementary factors are almost twice lower. The Table 5.16 below shows that from three major complementary factors (powers supply, telecommunication, and infrastructure/roads), power supply is seen to be as most binding.

Table 5.16. Ranking of complementary factors by means and percentage

Constraint	N	Mean	Std. Deviation	%
1 Unfair competition (informality and tax evasion)	499	4.4	1.597	72.3
2 Corruption	499	4.21	1.898	65.3
3 Crime, theft and unrest	499	4	2.027	57.5
19 Power supply	499	2.74	1.859	22.2
21 Transportation/roads	499	2.33	2.01	12.6
22 Telecommunication	499	2.28	2.111	9.4

Source: *Rinvest survey 2013*

Low returns may be also the function of the quality of human capital. Though human capital is not ranked by managers as one of the top constraints, there are other symptoms generated from other sources which argue that human capital might be one of binding constraints to the growth of firms. Hausmann *et al.*, (2008) argue that one way to look at whether human capital is binding is to use the Mincerian model on returns to human capital. According to this model, if returns on education are high, then it can be argued that human capital is a binding constraint. However, in countries (such as Kosovo) with a very high unemployment rate of unskilled workers and slow growth in less skill intensive tradable activities including manufacturing, it is hard to argue that high returns to education is a signal that human capital is a binding constraint to growth (Rodrik, 2005). With regard to Kosovo, there have been studies showing that return to education is low. However, the low return to education may come due to the high level of unemployment in which workers tend to trade lower wages in return for more secure employment (Hoti, 2011).

There are other signals which may shed light on current human capital conditions in the country. Under the assumption that profits are appropriable, government provides decent services to firms, there are no market failures, and access on finance is not a problem. Could it be argued that the current education system in the country generates human capital which is in line with market demand?⁸⁵

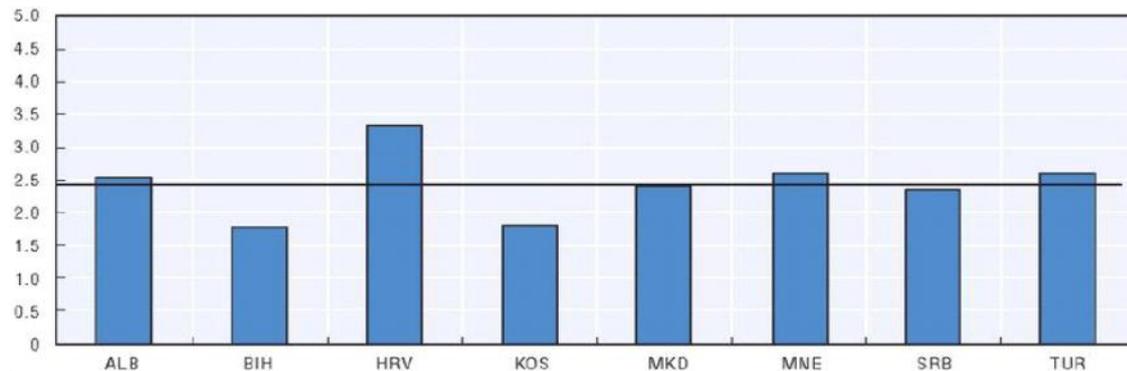
In one of the OECD reports developed in 2013, it is reported that one of the major problems with human capital, and specifically with the education system in Kosovo is its structure. From the total number of students in the higher education, only 5.6% of them study natural and mathematical sciences and 3.4% electrical and computer engineering, posing one of the main challenges for this system. Other unfavourable signals are the relationship between universities and firms, in which the internship system is either applied partially, or it is not applied at all. There is a general view among firms that students that graduate in the Kosovo's universities, both private and public ones, lack applied skills (OECD, 2013).⁸⁶

⁸⁵ Creation of an education system which would be more focused towards technical and natural sciences and should not rely on current demand but on latent demand.

⁸⁶ There are 18 private universities and colleges, and 5 public universities operating in the country (OECD, 2013)

The OECD also provides data on how well countries manage to apply principles adopted in the Small Business Act (SBA) for Europe 2008.⁸⁷ One of the main principles of this act is related to entrepreneurship learning and training. More specifically the report assesses the ability of various countries to build coherent entrepreneurship skills through national education systems. According to the report published in 2012, Kosovo has not managed to establish a specific policy framework for promoting entrepreneurship learning in higher education. The report also argues that Kosovo has not established the link between universities and firms. The comparative analysis shows that in terms of entrepreneurship learning and inclusion of entrepreneurship into the education system, the country lags behind many countries in the Western Balkans.

Figure 5.10. Entrepreneurship learning and training in Western Balkans and Turkey



Note: The line indicates the regional average of the policy dimension

Source: SBA assessment 2012

On the other hand, findings in the manager survey (2013) provide a slightly different picture. In the list of 24 business environment factors included in the questionnaire, recruitment of educated and skilled employees as a constraint was ranked quite low, with the mean scored at 2.22. On the other hand, when managers were asked about what they view as a main obstacle to recruit qualified staff, 40 per cent of them responded that it is hard to find educated and skilled personnel in the market, while 48 per cent view high salaries as a constraint to recruit educated and skilled labours.

In the survey conducted in December 2013, which covered 32 manufacturing firms, managers of firms indicated that one of the major obstacles they face is recruiting high skilled labours. 56 per cent of respondents indicated recruitment of educated and skilled labour as a major constraint.

Based on the findings from external sources and micro-manager surveys, it can be concluded as follows:

- Since the country is located in south east Europe, its distance to the European Union market suggests that on balance the country's geographical location cannot be seen as binding constraint to the growth of firms.

⁸⁷Adopted in June 2008, the Small Business Act for Europe reflects the Commission's political will to recognise the central role of SMEs in the EU economy and for the first time puts into place a comprehensive SME policy framework for the EU and its Member States <http://ec.europa.eu/enterprise/policies/sme/small-business-act>

- Its infrastructure is not the best one, but evidence from various sources (including the micro-manger survey data) converges in that firms do not view infrastructure as a major constraint. This of course excludes the power supply which in the doing business indicators is ranked quite high (121) as a constraint.
- There are a few symptoms that indicate that firms suffer from lack of adequate human capital. Findings from both OECD (dates) reports illustrate that the education system in the country is (not) oriented towards promotion of entrepreneurship learning. Despite some improvements, the number of people with a high level of education is lower than in many comparator countries. The percentage of students that study social sciences rather than natural, mathematical, engineering, and computer sciences is significantly higher than in comparator countries. There is no well-structured relationship between private sector firms and universities. The government has not undertaken any formal initiative to implement the principles set out in the Small Business Act 2008 that requires that entrepreneurship learning and training be part of national education system. The findings from the survey with manufacturing firms clearly show that human capital is one of the major constraints.

The process of analysis carried out above aimed at identifying symptoms that may be constraints to the growth of firms. As previously stated, these symptoms provide signals which may serve to make a structured list of the kinds of tests that help discriminate between different explanations. The ultimate objective is to match symptoms with the relative tightness of constraints. The Table 5.17 below intends to do so. Each column shows a constraint, while each row shows the number of symptoms identified during the second step of the analysis.

As is shown in the Table 5.17, there are two assumptions taken into account. The first one stands for the situation when the cost of finance is high, and possible explanations are listed as to why interest rates are so high in the columns. In situations when aggregate savings are a problem, it would be expected to see a high deposit rate, because money is scarce. Also, foreign borrowing could be limited. As a consequence of that, the interest rate will be high.

On the right hand of the Table 5.17 the assumption involves a situation in which lending is available and cheap but does not trigger much investment. The columns provided below provide symptoms related to government and market failures, as well as complementary factors such as infrastructure and human capital.

In the next step of analyses these symptoms will be used to explain which constraints can be accounted as binding (syndromes), to the growth of firms in Kosovo.

Table 5.17. A Matrix of Tests

Binding Finance		Binding social returns						
Low aggregate Savings	Bad finance	Lack of complementary factors		Low appropriability			Coordination	
				Government failure			Market failure	
		Human Capital	Infrastructure public goods (geography ?)	Ex ante	Ex post		Low R&D Low Self discovery	
Ex ante risks	Tax			Low property rights, crime & corruption				
High lending interest rate		Low lending interest rate						
Low net cash flow from banks		High net cash flow from banks (dC/C - i)						
Investment elastic to interest rate		Lack of investment response to interest rate change						
Access to external finance is low (high country risk, high credit risk attributed to country)		Number of people with high educational level is lower than in comparator countries		Political risk, social risk	Corruption at tax administration authority	Corruption is uncontrolled		Low R&D Low Innovation and therefore Low Self discovery
Short loan duration, credit rationing		Significantly more students enrolled in social sciences rather than natural, mathematical, engineering, and computer sciences than in comparator countries				Crime is seen as a lucrative area		
High deposit interest rate	High spread	No relationship between private sector firms and universities		High expectation of losing future profits	Rampant tax evasion and informality in the economy	Unfair competition/practices		Unfavourable export structure
Low domestic savings	Interest rates on loans are significantly higher than those in comparator countries	Entrepreneurship learning/training is not part of national education system				Rule of law is highly defective		
The size of intermediation system in the country is smaller than in comparator countries	Profits in banking industry are quite high, which gives an indication that banks operate in a relatively monopolistic business environment	There is empirical evidence indicating that human capital is one of the key constraints		Collection of receivables		There is no coordination, no relationship between business community and governments (central and local)		
				Uncertain economic policies				
				Cost of doing business				

5.1. From symptoms to syndromes

In the previous two steps the aim was to assess the tightness of different symptoms/signals to the growth of firms. In the following step the aim is to organise the findings and propose an explanation for the existence of the syndromes/constraints and why they are present.

5.1.1. Syndrome number 1: poor provision of public goods

As previously explained, the purpose of growth diagnostic theory is not only to identify the symptoms, but more importantly to explain where they come from. Therefore, in the situation where a market is perfect, the shortage of a constraint would generate incentives to increase the supply (Hausmann *et al.*, 2008). So why does the constraint not self-correct? In other words, the logical question to be raised here is what departures from the normal business environment are included. For firms to grow the first requisite factor is publicly provided goods, such as the existence of law and order. Data from various sources (Djankov *et al.*, 2006; Kaufmann and Kraay 2002) leads to the inference that poor public goods provided in the country emerge as an empirical regularity – a syndrome. Therefore it can be inferred that based on the evidence found, poor public goods (for example, law and order) provided in a country can be the decisive cause of the low rate of private investment in the country. This inference is supported by evidence and facts on the ground presented by various international surveys, and converged by micro analysis and manager survey conducted in Kosovo by Riinvest Institute in 2013(see Table 5.11).

In the World Bank reports on Kosovo the governance indicators are scored quite low as against comparator countries, such as Croatia, Serbia, Montenegro, or Macedonia. For instance Kosovo is ranked relatively highly in terms of the control of corruption, an indicator which converges with data provided by other sources such as the Transparency International Corruption Perceptions Index, and also by the Micro-Manager survey (Riinvest, 2013).⁸⁸ The survey results indicate that 76 per cent of respondents perceive that in Kosovo unfair competition is the most binding constraint, followed by corruption (63 per cent), and crime (57.5 per cent). The correlation analyses conducted show that there is significant correlation between corruption and crime (0.60), or between court efficiency and corruption (0.48). The logistic regression results show that the main predictor of the high level of corruption is crime ($p=0.000$), followed by court efficiency, uncertain economic policies, and political (in) stability.

Alleviation of appropriation constraints (informality, rule of law, corruption, and unfair competition) would potentially have positive effects on other constraints. First, by better control of tax evasion and informality good governance could restore fairer competition in the marketplace. Second, by improving the rule of law, reduction of corruption would improve the country's rating and by doing that the country's risk, and most importantly the country's credit risk rating, would improve. Third, under the assumption that the country's risk and along with that the credit risk is improved, the prospects for higher access on foreign finance would increase. Fourth, as a consequence of all the above improvements, the high cost of finance would potentially decrease.

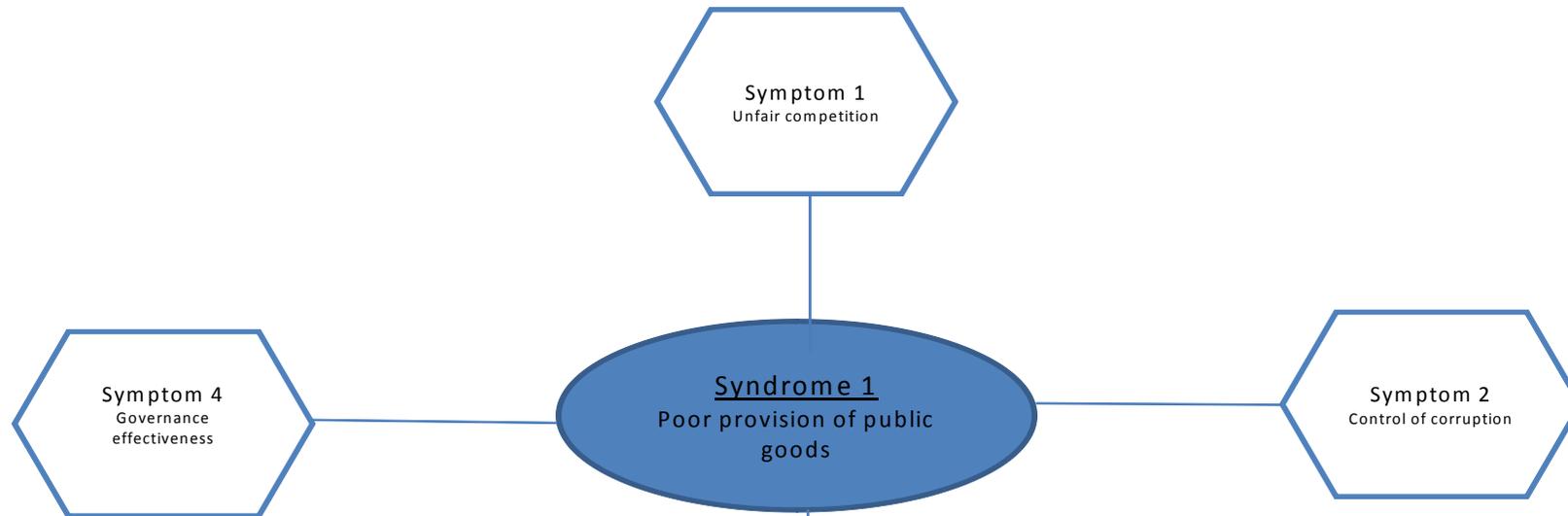
⁸⁸<http://www.transparency.org/country#KOS>

Chapter 5. The Impact of Business Environment on the Growth of Firms in Kosovo

In summary, based on the evidence, it can be inferred that low appropriation – government failures - represent the first and the biggest syndrome of the business environment in Kosovo. More specifically lack of law and order is reflected through high levels of unfair competition, informality, uncontrolled corruption, court inefficiency, and governance effectiveness.

Other potentially binding constraints to firm growth will be presented in the following section.

Figure 5.11. Syndrome number 1



- **Unfair Competition** –captures the managers’ perception that due to tax evasion and high level of informality, the competition in the market is far from being fair.
- **Control of Corruption (CC)** – captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.
- **Rule of Law (RL)** – captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
- **Government Effectiveness (GE)** – captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Source: WB -The Worldwide Governance Indicators

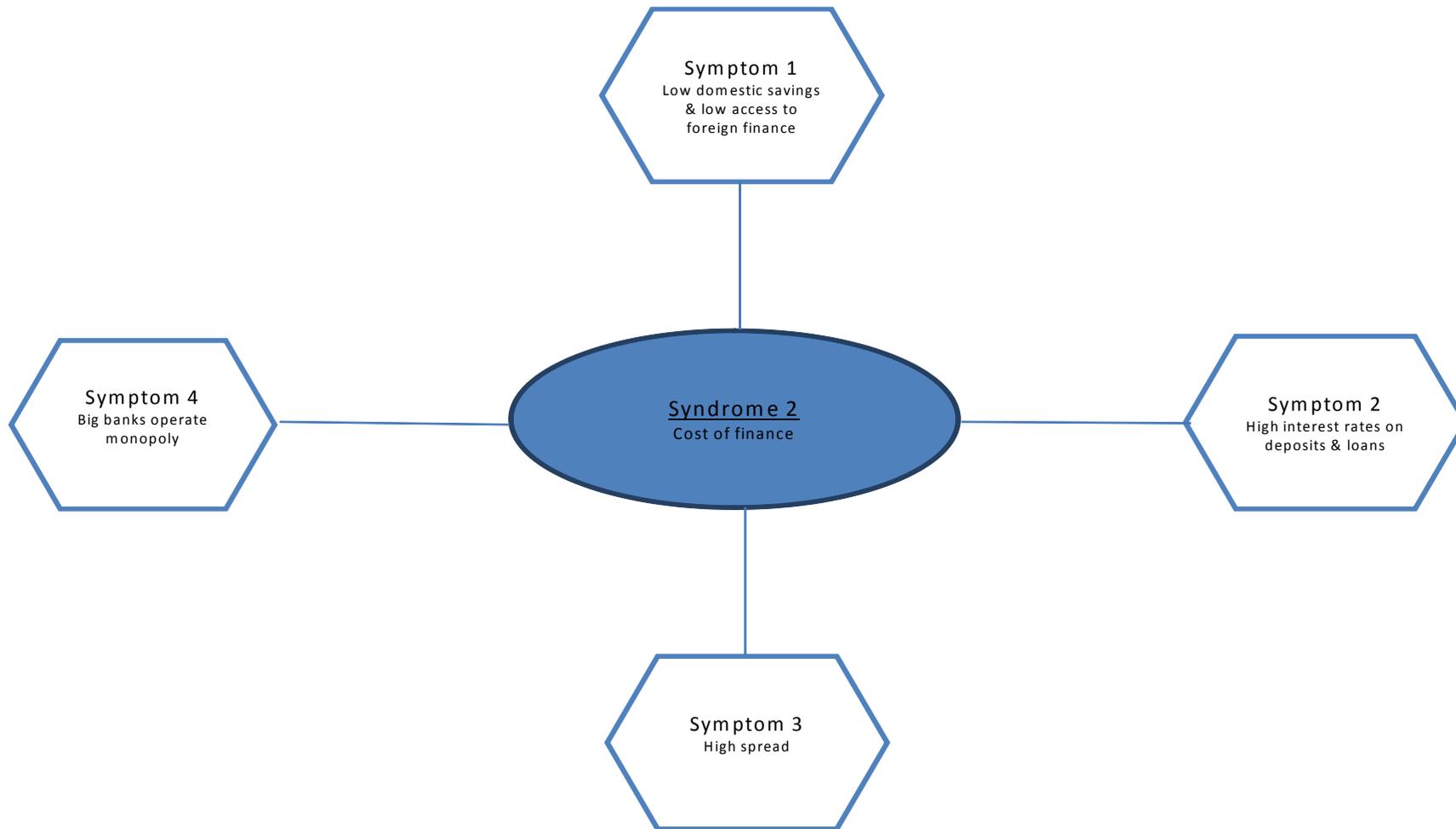
5.1.2. Syndrome number 2: cost of finance

Many empirical studies indicate that finance is one of the major constraints to the growth of firms. There have been studies relating to Kosovo which even ranked the access on external finance as the most binding constraint (Sen and Kirkpatrick, 2009). The evidence and analysis conducted in this study shows that finance is a binding constraint, but not the most binding one. There are symptoms which correlate to each other and as such to the inference that finance is one of the constraints which firms face currently in the Kosovo's business environment (see Table 5.12). The findings show that domestic savings in the country is the lowest in the south-eastern Europe. Due to the country's risk and the unfavourable credit rating, the access on foreign finance is restricted and the cost is relatively high, the interest rate on deposits is high and therefore the interest spread is the highest in the region. There are symptoms that the banking sector is monopolised (high profits and the size of the banking sector is smaller relative to comparator countries).

This evidence converges with the managers perception collected in the 2013 survey. Though the cost of finance and access to finance are not ranked higher than factors related to governance factors, managers still perceive the cost of finance as a significant constraint.

Correlation analyses conducted show that the highest correlation exist between the high cost of finance and political stability (Table 5.6), lack of economic policies, and rule of law (0.27). The regression analysis (Table 5.8) shows that the highest predictors of the high cost of finance is political stability ($p=0.000$), followed by rule of law ($p=0.001$) and uncertain economic stability ($p=0.053$).

Figure 5.12. Syndrome number 2



5.1.3. Syndrome number 3: human capital

From complementary factors such as geography and infrastructure (roads, power supply, and water), and human capital, the evidence shows that human capital has more symptoms to be treated as the third binding constraint. Having said that, it does not mean that the geography is perfect, or that infrastructure is the best. Specifically it could be said that infrastructure in the country is improving and as such is more comparable with other countries in the region. This is not the case with the factor of human capital. Several symptoms point out that the education system is in a poor state.

First, evidence presented by international organisations (specifically OECD (2013), UNESCO (2012)) shows that in many aspects Kosovo lags behind other comparator countries. For instance, the percentage of people with a high education in the country is far less than in other comparator countries (e.g. Croatia and Montenegro). The structure of the education system in the country is very much skewed towards social sciences rather than for instance natural, mathematical, engineering, and computer sciences. The current education system has not started to implement the OECD's project called Small Business Act (2008) which requires that entrepreneurship learning and training be part of the national education system. This project has started to be implemented in some other countries such as Macedonia, Croatia, and Serbia. The higher education system in Kosovo is not linked with research and innovation activities as it is the case with some education systems in comparator countries (e.g. Croatia). Another symptom found is that related to the relationship between universities and business entities (see Table 5.13). The evidence shows that students get very broad and theoretical knowledge from their studies, since they are not required to conduct the practical part of their study in the form of an internship (OECD, 2013).

Figure 5.13. Syndrome number 3



5.2. Conclusions

The purpose of this chapter has been to set out what are the binding constraints to the growth of firms in an economic setting characterised with low income, with reference to Kosovo's economy. The focus of the investigation was placed on those aspects of the business environment that are not under the control of business entities, but that affect the expense, ease and reliability of doing business in the country. The process of investigation was conducted by applying the growth diagnostics approach and methodology. This model provides methodological principles to identify what are the most binding externalities to the growth of firms in a particular economy by taking into account the institutional context and socio-economic realities of the country in question. The empirical evidence used to test the hypotheses is taken from two different sources: rankings and surveys conducted by various international organizations and from the subjective evaluation of constraints by managers of 500 firms operating in Kosovo. The conclusions provided below have been derived by combining the top-down growth diagnostics approach with bottom-up survey data from managers.

Among the conclusions are that from the set of business economic factors, appropriation factors (government failures) represent the most external binding constraints. The compelling evidence from both sources, international surveys and manager survey data on the business environment, suggest that the most binding constraint behind the growth of firms in Kosovo lies in low appropriation represented primarily through government failures such as serious deficiencies in the sphere of rule of law, unfair competition, and high levels of corruption.

Under the assumption that internal business capabilities exist, findings indicate that the higher the risk of appropriation of returns, the lower would be the interest of private agents to invest and consequently the lower the capital accumulation and the growth rate of firms. On the other side of the ledger, the higher the government failures (rule of law, unfair competition, corruption), the higher the cost of capital, the scarcer are investible resources in the economy, and the lower will be the amount of investment that can be financed (Rodrik, 2010). It could be argued that with potential relaxation of this constraint, other constraints probably would produce a bigger change in the growth rate than relaxation of, for instance, cost of finance or human capital.

Secondly, the results obtained from the analysis suggest that the cost of capital in Kosovo represents the second most binding constraint to the growth of firms. This constraint is partly related to macro and governance factors. This is so because the higher the government failures, the lower the appropriation, and consequently the higher the cost of capital. Findings indicate that scarcity of investible resources originates also from low savings domestically; poor domestic intermediation; monopolistic behaviours of banks, and poor access on international finance.

Thirdly, the reason why the rate of private return in the Kosovo's economy is so low may be related also to complementary factors, primarily to human capital. Evidence suggests that the current education system in the country suffers from many distortions including: the inadequate link between market needs and the university graduates; no link between higher education and research and innovation activities; and poor labour skills (OECD, 2013). All these elements make up a syndrome which should be addressed to ensure sufficient growth.

If the central argument of growth diagnostics theory is that private investment and entrepreneurial activity is essential for any country to experience growth, then, based on the evidence presented in this chapter it could be argued that the current investment climate in Kosovo provides little incentive for the growth of firms. Growth is a function of private investment, which increases only when agents (entrepreneurs) expect a high rate of return on asset accumulation, and also when there is an availability of funds to finance their business projects. The findings show that private investors perceive the business environment in Kosovo as being unfavourable; characterised by high microeconomic risks, where the cost of capital is high, and in which complementary factors in the form of human capital are extremely scarce.

Having said that, it does not mean that other external constraints are trivial or not important. This chapter has explored the sequence of binding constraints that firms in Kosovo currently face. This is a reason why the study should be treated as a work in progress, because changes in the business environment occur constantly, new data and evidence may become available, and therefore updating the list of binding constraints becomes necessary. In sum, in the light of future possible changes in the country, this work should be treated as working hypotheses that have to be challenged, and extended by other research studies.

CHAPTER 6

6. The Impact of Social Conditions on Firm Innovation

6.1. Introduction

In the words of Schumpeter (1942), capitalism is a system in which innovation is the main driver of economic growth. According to him, technological change constantly disrupts the general equilibrium of market exchange. It is large scale enterprise which is the most powerful engine of progress, and therefore perfect competition is not only impossible but inferior, and has no title to being set as the model of ideal efficiency (Schumpeter, 1942). Drawing on this, Lazonick (2013) has proffered the theory of innovative enterprise which primarily is the critique of neoclassical and transaction cost models.

The neoclassical theory of the firm posits optimising firms as the relevant microeconomic unit of analysis. This theory views firms as a black box, in which the main objective is to maximise the profits defined as the excess of revenue over all costs, where the entrepreneur is seen as the central figure behind the firm who has access on both complete and certain information about the environment in which the firm operates. Neoclassical theory is centred on the idea of perfect competition, and therefore calls for the breakup of large-scale business firms so that large numbers of small-scale optimising firms can move economic activity closer to the “perfect” competition (Lazonick, 2011b). In short, according to this theory, large-scale firms prevent the achievement of superior economic performance by producing lower output at higher prices than would be the case under conditions of perfect competition (Lazonick, 2013).

On the other hand, the transaction cost theory of the firm views firms as business entities that constantly endeavour to minimise the sum of production and transaction costs for the task required (Williamson, 1985). According to this theory, the best institutional arrangements depend on the nature of the transaction, namely the success of transactions depend on the asset specificity (value of the resources in subject of transaction), uncertainty, and frequency.

As stated above, both theories have been subject of critiques by Lazonick(2013: p 3), who views them as illogical and irrelevant. The superiority of “perfect” competition he views as illogical, while the Williamsonian transaction-cost model for understanding the growth and performance of the firm he considers as irrelevant. The neoclassical monopoly model is illogical because it assumes that the monopolist optimises subject to the same cost structures as perfect competitors, while the Williamsonian transaction-cost model is irrelevant because “asset specificity” is not given to the firm but is rather an outcome of its investment strategy (Lazonick, 2013: p 3). Therefore, for him the challenge is to explain the conditions under which this investment strategy results in innovative outcomes which can be explained by the theory of innovative firm.

According to this theory, growth is carried out primarily through the transformation of cost structure and utilisation of productive resources. These productive resources, in turn generate higher quality, lower cost goods and services than the competition. The creation of adequate social conditions at national level is an indispensable requirement for the emergence of innovation. Therefore, governmental policies should be directed towards the creation of social conditions which enable the

emergence of firms that are able to innovate. For their part, firms endowed with innovation capabilities do not take external constraints (technological and markets) as a given (Lazonick, 2013). On the contrary, they make investments to transform technologies and access markets that potentially provide a competitive advantage.

Some aspects to be discussed in this chapter have been tackled in the previous chapter in which the growth diagnostics theory was used to investigate binding external constraints to the growth of firms. Growth diagnostics theory assumes that once external constraints are removed the growth of firms will follow automatically. This study argues that this is a “heroic” assumption because it implies unlimited supply of entrepreneurship will be provided once the external conditions are right. It also assumes that capabilities for firm formation and expansion are in place. This study argues that firms are complex entities which do not necessarily grow automatically once external constraints are removed. There are varieties of intra-firm factors which inhibit firm formation and especially firm expansion which should be accounted for. Furthermore, this study argues that there is a need for extended growth diagnostics approach (Hausmann et al., 2008), which is concerned with firms in a static way. It is not concerned with whether firms are innovative or not, or whether they have the potential to grow or not. It assumes that intra-firm capabilities are a function of external constraints and once these are removed growth of firms would follow. This study argues that it is not enough to investigate factors that enable or constrain the growth of firms today, but moreover, what enable and constrain the growth of firms in a long term, or what makes them innovative. For example, business environment factors may be conducive for firms to compete on prices but not to innovate. A tough local competition may actually reinforce pressures on wages through very flexible labour market but not incentivise firms to invest in skills and vocational training. Or, ownership structure of firms may be such that firms are not interested in long-term investment and innovation but in rent-seeking. In both cases, business environment may be relatively unproblematic and factors that deter long-term investment may be related to the compatibilities between labour laws, capital markets and ownership structures. Also, public investments in human capital and infrastructure may be insufficient so that efforts through ‘structural reforms’ do not give pay offs due to insufficient complementary public investments.

More specifically, this chapter aims to investigate factors that enable or constrain firms to innovate. It looks at social conditions as the determinants of the emergence of innovative firms, and therefore as determinants of innovation. Innovation is viewed as an important driver of growth. This part of the study argues that the emergence of firms endowed with innovation capabilities is a function of achieved levels and types of strategic control, organisational integration, and investment commitment. These are factors whose determinants are partly external to firm but partly internal. External factors are broader than just doing business type of indicators and include labour legislation, nature of capital markets and strategic control of firms. Internal factors include management capabilities and factors that determine extent and intensity of organisational learning in firms.

In order to address this question and to test the hypothesis, the analysis was conducted by using a comparative methodology. It compares two groups of firms extracted from the same sample, exporting firms versus non-exporting firms. It is worth mentioning at the outset of this study that, in the absence of any data on innovation activities of firms in Kosovo, exporting is considered as a proxy for innovation. Also, innovation in this study is treated as products and processes new to the

firm, not necessarily new to the national or international market. So, innovation is firm and market driven activity which is quite close to firms' daily activities and in the case of Kosovo as a rule does not involve major R&D effort. The units of analysis are exporting and non-exporting firms operating in the Kosovo's economy. There are two different sorts of datasets used throughout the analysis. To analyse social conditions at national level, the study has utilised different sources of information, while social conditions at micro-firm level were analysed by using two databases based on surveys conducted in 2012, and 2013 respectively.

This chapter is organised as follows. The following section provides the theoretical framework used to address the research question. This is followed by a discussion of the methodology deployed throughout the research process. The third section provides empirical results on the social conditions at the national level, followed by a fourth section which presents research findings on social conditions at the micro-firm level. The final section provides conclusions.

6.2. Theoretical framework

Investigating social conditions necessary for the emergence of firm innovation, the theory of the innovative firm provides a useful analytical framework. This theory begins with an assumption that the innovation process is characterised by uncertainty, collective and cumulative factors.⁸⁹

Basically, this unified theoretical framework approaches the explanation of necessary social conditions for firm innovation in terms of continuous (reciprocal) interaction between industrial, organisational, and institutional determinants (Lazonick, 2013). Innovation here is defined as product and process new to the firm, not necessarily new to the national or international market.

This theoretical framework addresses the shortcomings of both the neoclassical and the transaction cost theory of the firm. While the neoclassical theory takes technologies and markets as given constraints, and as a result cannot differentiate itself from its equally "perfect" competitors, from the perspective of this framework, innovating firms make investments to transform technologies and access markets that can potentially give it a competitive advantage. Similarly, the transaction cost theory assumes that firms operate under the concepts of "bounded rationality" and "opportunism", and "asset specificity", while this framework argues that through its investment strategy and organizational structure, the innovating firm can transform asset specificity, bounded rationality, and opportunism rather than take these conditions as given constraints on its activities (Lazonick, 2013).

⁸⁹ The following paragraph is taken from the Lazonick's (2013) explanation on innovation. "Innovation is uncertain because when investments in transforming technologies and accessing markets are made the financial returns cannot be known, even probabilistically. As we shall see, "optimization" is the enemy of innovation. Innovation is collective because, to generate higher quality, lower cost products than were previously available, the business enterprise must integrate the skills and efforts of large numbers of people with different hierarchical responsibilities and functional capabilities into the organizational learning processes that are the essence of innovation. Innovation is cumulative because collective learning today provides the foundation for collective learning tomorrow, and these organizational learning processes must be sustained over time until, through the sale of higher quality, lower cost products, financial returns can in fact be generated".

Explaining the theory of the innovative firm Lazonick (2013) indicated that two classes of variables must be considered: social conditions at the national level represented through governance, employment, and investment institutions together with social conditions at the micro-firm level, which are represented through strategic control, organisational integration, and financial commitment. Drawing on these variables, it could be argued that the emergence of innovative firms and firm innovation is a function of the existence of specific social conditions. Expectancy within this explanation refers to the perceived degree of probability that a causal relationship generally exists between specific social conditions and the emergence of firm innovation.

In the application of the innovative firm theory to this study, the above classes of variables cover the following aspects:

1. Governance institutions involve issues related to the regulatory framework for firms with special focus on what is the enterprise/firm law, and tax laws.
2. Employment institutions cover aspects related to employment law, labour market flexibility, easiness to hire or lay-off employees, and reward systems.
3. Investment institutions cover aspects related to the system which ensure that sufficient financial resources are available on a continuing basis to sustain the development of its productive capabilities.
4. The strategic control variable covers a set of relations that give power to those that take decisions to allocate the firm's resources to confront the technological, market, and competitive uncertainties inherent to innovation process. Several proxies will be used to investigate the strategic control relations, such as structure and characteristics of the ownership, relationship between owners and managers, concentration of ownership (minorities and majority owners), interactions between managers and owners. With regard to abilities of those who have power to take decisions the proxies used include educational attainment of decision-makers, experiences collected over the years, and training received.
5. The organisational integration variable covers relations that enable firms to transform inputs into innovative outputs. The first category of proxy involves organisational learning. The purpose is to investigate the sources of organisational learning, namely whether firms learn most from the market (supplier, competitors, consumers), or whether learning is attained internally from the experience of their workers, the ideas generated inside the organisation, or the time given to employees to generate new ideas. The second category of proxies is related to the way the innovation process is organised, namely whether innovation processes are organised independently or in collaboration with other external entities (academic institutions and research institutions, business associations). The third variable has to do with the labour- management relationships, i.e. the way how organisations create incentives for people with different hierarchical responsibilities and functional capabilities.
6. The third class of variable at the firm-level covers aspects related to availability of financial resources to commit during the innovation processes. Three proxies will be used to measure the availability of financial resources: amount of investments committed by firms in last three years, the investment funds raised from banks, and the terms under which funds were raised from banks.

With these specific variables, the theory of innovative firms developed by Lazonick (2013) can be adapted to read as follows: the emergence of firm innovation within a specific business environment is a function of the expectancy that the existence of above mentioned social conditions will lead to specific rewards for firms by enabling them to generate higher quality, lower cost products and services.

The following statement represents the underlying logic for designing and conducting this study. If a society at macro level manages to create conditions such as (a) governance (b) employment (c) investment institutions, and at micro level firms are endowed with (d) strategic control attributes, (e) organisational integration attributes, and (f) to have ample access on financial capital to implement their projects, then the emergence of firm innovation as an important driver of growth will follow.

Drawing upon all these, the following research question is raised for this chapter: *What are the social conditions that enable or constrain the emergence of innovative firms in Kosovo?*

The main hypothesis deduced from this theory is as follows:

- *The emergence of firm innovation in Kosovo is the function of social conditions at macro-level represented by governance, employment, and investment institutions; and social conditions at micro-level represented by strategic, organisational and investment factors.*

6.3. Methodology

The following section describes the methodology used to address the research question. It explains why this specific methodology was deployed, the structure of the data, a short description of the units of analysis, the sources from where data was obtained, and finally summarises the statistical techniques deployed throughout the process.

The analysis is conducted by using a comparative method. It is carried out by comparing findings of two groups of firms originating from the same sample. One group is made up of exporting firms, and the other one of non-exporting firms. The comparative method is considered to be inherent in all science, including the social sciences, where this approach has historically played a significant role (Lijphart, 1971; Ragin, 1987; Cullier, 1993, 1998). The aim of this method is in identifying and assessing the similarities and differences of exporting firms from non-exporting firms. Therefore, exporting firms have been used as a proxy for innovative enterprises. The reason why the process of analysis is based on the comparison between these two groups of firms is because the literature argues that exporting firms are more innovative than others (Ayyagari *et al.*, 2007). More specifically, there have been empirical studies arguing that exporting firms are endowed with some specific characteristics which are not apparent amongst non-exporting firms (Bernard and Jensen, 1999, 2001; Gourlay and Seaton, 2004). Intending to investigate whether there are characteristics that differentiate exporters from non-exporters, these studies have used datasets with firm-level characteristics. Findings show that substantially different characteristics exist between the two groups of firms. For instance, Robert and Tybount (1997) show that a certain amount of sunk costs, represented through establishing distribution systems, market research about demand conditions abroad, and product modification and compliance, is involved in entering foreign markets. It could be argued that only efficient firms enter the export market as only they have the means to incur

these costs (Fafchamps *et al.*, 2002). Apart from the sunk cost, research suggests that the exporting process requires firms to be more efficient because selling in the foreign markets exposes a firm to more intensive competition, therefore firms must increase their productivity in the home market before they enter export markets (Bernard and Jensen, 1999). Empirical evidence puts forward other characteristics such as size and age as differentiating factors between exporting and non-exporting firms. For instance, evidence shows that larger firms can benefit from their size by engaging in economies of scale, they have a greater ability to expand resources and absorb risks than smaller firms do (Erramilli and Rao, 1993). Also, larger firms have lower average or marginal costs (Bernard and Wagner, 1998). Another variable often linked to exporting characteristics is ownership type. Evidence shows that foreign owned firms are more likely to be exporters (Kumar, 1994), or limited companies are more likely to be exporters than other ownership types (Javalgi *et al.*, 1998).

Finally, one of the most typical variables that distinguish exporting firms from non-exporting firms is innovation capability. There is evidence that shows that exporting firms are typically endowed with greater innovation capabilities suggesting that innovation improves the quality of products and hence the profitability of exporting (Anderton, 1999). Linked to innovation, other variables often used include human capital, or labour quality; the hypothesis being that the quality of the workforce is a reflection of the quality of the good produced or services provided, and hence positively related to export entry (Bernard and Jensen, 2001).

Finally, According to (Ayyagari *et al.*, 2007: 19) exporters are more likely to upgrade product lines, introduce new technology, open new plants and enter into joint ventures or licensing agreements. Further on they argue that if the firm's technology is better than that of its competitor, the firm is more likely to engage in all types of innovative activities except discontinuing product lines and closing plants.

Therefore, comparing exporting firms from non-exporting ones enables to identify both: patterns that are similar and those that differentiate two groups of firms. It enables to separate patterns that are more general, and isolate regularities that are different between two sample groups (Cullier, 1993, 1998). The comparative analysis not only uncovers differences between exporting and non-exporting firms, but also reveals those unique aspects of firms that probably are more difficult to see otherwise. In short, the comparative methodology provides the key to understanding, explaining and interpreting diverse research findings, as in this study (Lijphart, 1971; Ragin, 1987).

The methodology applied for the identification of social conditions for the emergence of innovative firms and innovation should be viewed in the light of some limitations. First, the questionnaire utilised to gather data related to social conditions at a micro-firm level were not specifically designed for the purpose of this dissertation. A greater depth of information may have been obtained if the survey could have included interviewing managers of the firms about some more specific issues, such as the relationships between principals (owners) and agents (managers), about concentration of ownership (majority and minority owners), about industrial relations or interactions between managers and workers which are partly institutionally specific to each country but are also partly firm specific i.e. firms in similar institutional environment may have quite different intra-firm labour – management relations. Second, the quality of the dataset would be improved by using the case study approach, which could have added important qualitative data and would have also enabled

usto gain a greater insight into the way firms organise industrial relations or interactions between managers and labours.

The statistical method used (the Mann-Whitney U test) to analyse the data belongs to the family of non-parametric techniques. The choice of this method was based on the nature of the study and the structure and setup of the data. The aim is to identify social conditions that enable exporting firms to be more innovative than non-exporting firms. This statistical technique converts the scores on the continuous variable to ranks across the two groups, and then evaluates whether the ranks for the two groups differ significantly. More detailed information about this statistical method/model, its advantages and limitations is provided in Appendix D.

In addition to the Mann-Whitney U test, a binary logistic regression was also run. This statistical model is applied with the intention of assessing the impact of a set of predictors (independent variables) on the differentiation between two groups of firms (exporting from non-exporting firms). More details on this statistical method is provided in Appendix I.

6.3.1. The data

The data used in this chapter were obtained from various sources. This is specifically the case when the social conditions at the national context were investigated. More specifically, the study utilises data provided by different national and international institutions such as The World Bank, OECD, UNESCO, and data from institutions of the Kosovo's government. In the section in which social conditions at the micro-firm level were discussed, this study has used two different datasets. The first dataset was obtained from the survey which was conducted in December 2012 by Business Support Centre of Kosovo (hereafter BSCK). This institute is a non-profitable institute which operates in Kosovo. The sample comprised of 500 firms which were drawn randomly from the business register provided by the Agency for Business Registration that is part of the Ministry of Trade and Industry. The sample is representative of the total firms operating in Kosovo, since it is pulled out randomly, it covers all regions in the country and what is more importantly it covers firms operating in all economic sectors. In the part where intra-firm labour-management relationships is analysed, this study has used the dataset generated by an original survey conducted in December 2013.⁹⁰The sample comprised 32 manufacturing firms. The questionnaire had 58 indicators which have been broken down into more detailed variables (185) ranging from tangible resources (physical and financial), human resources (education, training, experience), organisational capabilities (entrepreneurship, marketing, teamwork, networking, and dynamic capabilities), and management practices (operations, monitoring, targets and incentives). This study uses only the last part of the questions, namely those related to management practices.

In the section where national social conditions are discussed, the analysis is merely descriptive. This is not the case with the section where social conditions at micro-firm level is discussed. The purpose

⁹⁰The survey was conducted by the author of this study. More information about this dataset is provided in Chapter 4 where organizational capabilities and managerial practices are analyzed.

in this section was to use statistical techniques and find out differentiating factors between exporting firms and non-exporting firms.

Depending on the availability of data, the analysis has utilised the following indicators:

- The strategic control indicator which was broken down into four variables such as ownership concentrations, the distribution of power, relationship between owners (family, professional, joint funding), and their abilities (educational attainment, experience, and training).
- The organisational integration indicator was also broken down into measurable variables such as business plan utilisation, cooperation with foreign partners, and collaboration with external partners during the innovation processes.⁹¹ Attempting to investigate ways in which new knowledge is acquired, the following variables were used: market (suppliers, competitors, and customers) as a source of knowledge, experience of staff members, ideas generated by staff members, and knowledge gained by other research institutions. Labour-management relations were analysed through the indicators relating to how business targets are set, the way monitoring practices are organised, and finally the way in which firms apply incentive practices in the workplace.
- Investment commitment indicators were broken down into specific variables such as whether firms have invested in the last three years, the sources of funds obtained (internal or external), and the length of the loans taken from banks.

More detailed informational background about the dataset and the questionnaire used for the data collection is provided in Appendix J.

6.4. Social conditions at the national context

Social conditions at the national level may support and undermine the rise of innovative firms. While some social conditions promote innovative firms, others may undermine them. Building social conditions that can be conducive to innovation is not an easy process. This environment requires comprehensive conditions and multiple inputs, which are often scarce in low income countries like Kosovo (World Bank, 2013).

With regard to Kosovo, creation of supportive social conditions that would enhance innovative firms is at embryonic stage (World Bank, 2012a). The investigation of the social conditions is carried out by using the Lazonick's analytical framework of theory of innovative enterprise. This framework puts into pair interaction governance institutions with strategic control, national employment institutions with organisational integration, and investment institutions with financial commitment. It is worth stating that this analysis does not intend to perform an exhaustive analysis of these interactions. Rather, based on the availability of data it aims at analysing the state of current social conditions in

⁹¹First aim was to find out whether business processes are organized through a formal business plan, while the second aim was to measure whether having formal relationships/cooperation with foreign firms make any difference in organizational processes between firms.

Kosovo, and in this way to shed light on whether these social conditions provide foundation for the emergence of innovative firms.

The following analysis is focused on the investigation of the set of social conditions related to governance institutions (regulatory framework for firms, and tax laws), followed by employment institutions (employment law, labour market flexibility, easiness to hire or lay-off employees, and reward systems), and the analysis concludes with social conditions related to investment institutions.

6.4.1. Social conditions related to governance institutions

In the words of Lazonick (2013: 30) “nations differ in their institutions which enable and proscribe the activities of firms.” Over time, distinctive elements of these institutions become embedded in the ways in which firms function. In this context, of particular importance in influencing the innovative firm are economic institutions related to governance. This element of social conditions determines how a society assigns rights and responsibilities to different groups of people over the allocation of its productive resources and how it imposes restrictions on the development and utilization of these resources. More specifically, this part of social conditions has to do with the enterprise/firm, regulatory framework for firms, governance elements, and tax laws.

Kosovo is a relatively a young independent country. Due to the fact that for over the decade the country has been governed by the UN and the EU, whose experts assisted in drafting laws, Kosovo’s regulatory framework on business firms is by and large modern and compatible with European and international standards (EBRD, 2013). Though certain gaps still need to be filled with new laws and secondary legislation, the overall impression is that the main gap to be bridged is between the relatively advanced legislation and the level of its implementation. The following analysis is focused on several aspects that regulate business activities including the Law on Business Organizations (Law No. 02/L-123, dated 27 September 2007), the Law on Publicly-Owned Enterprises (POEs) (Law no 03/L-087, dated 15 June 2008), the Law On Banks, Microfinance Institutions and Non-Bank Financial Institutions (Law No. 04/L-093, dated 12 April 2012) and the Law on Accounting, Financial Reporting and Audits (Law No. 04/L-014, dated 29 July 2011), as well as the Law on Tax. Special emphasis will be placed on the legal framework in respect of corporate governance.

With regard to the regulatory framework on business firms, Kosovo has adapted the Law on Business Organisations which entered into force in 2008.⁹² This law regulates various aspects related to business organizations that can operate in the country, including the types of business activities that can be conducted, determines the applicable registration requirements for each type of business entity, specifies in detail the rights and obligations of owners, shareholders, managers, directors, legal representatives and third parties. More particularly, according to this law, joint stock companies in the country are managed by a board of directors appointed by shareholders. Further, this law specifies that in joint stock companies with 100 or more shareholders, family members of employees of the company cannot constitute the majority of the board. There are specific amendments in relation to joint stock companies with 250 or more shareholders. According to these

⁹²http://www.kuvendikosoves.org/common/docs/ligjet/2007_02-L123_en.pdf

amendments, the board of directors for joint stocks companies with more than 250 employees must include at least two independent directors, and the definition of independence is included within the law.

There is a specific law which regulates the status of publicly-owned enterprises.⁹³ This law determines in detail the legal framework for the ownership of these enterprises and how their corporate governance is regulated. According to this law, publicly-owned enterprises are organized as joint stock companies. Basically there are two different types of these companies, namely those that are owned by the Republic of Kosovo (i.e., Kosovo railways, Kosovo energy corporation J.S.C., PTK, etc.), and those that are owned by municipalities (i.e., water supply enterprises, companies dealing with heating systems, waste, etc.). This law includes issues related to the corporate governance training for board members, and adaptation of a code of ethics. Codes related to corporate governance and ethics address aspects related to relations between stakeholders, transparency and disclosure, and the responsibilities of boards. However, as previously stated, the issue of how this code should be implemented in practice is not clear.

There is a specific law which regulates aspects linked to accounting, financial reporting, and auditing.⁹⁴ This law requires large, medium and small-sized entities to adopt and provide financial reporting according to International Financial Reporting Standards (IFRS) principles. Further, this law requires firms to prepare and report consolidated financial statements in accordance with EU law. All accounting records must be maintained using the euro as currency. Similar to other EU countries, financial statements of large companies must be audited by auditing firms, while those of medium-sized companies may be audited by auditing firms or individual auditors.

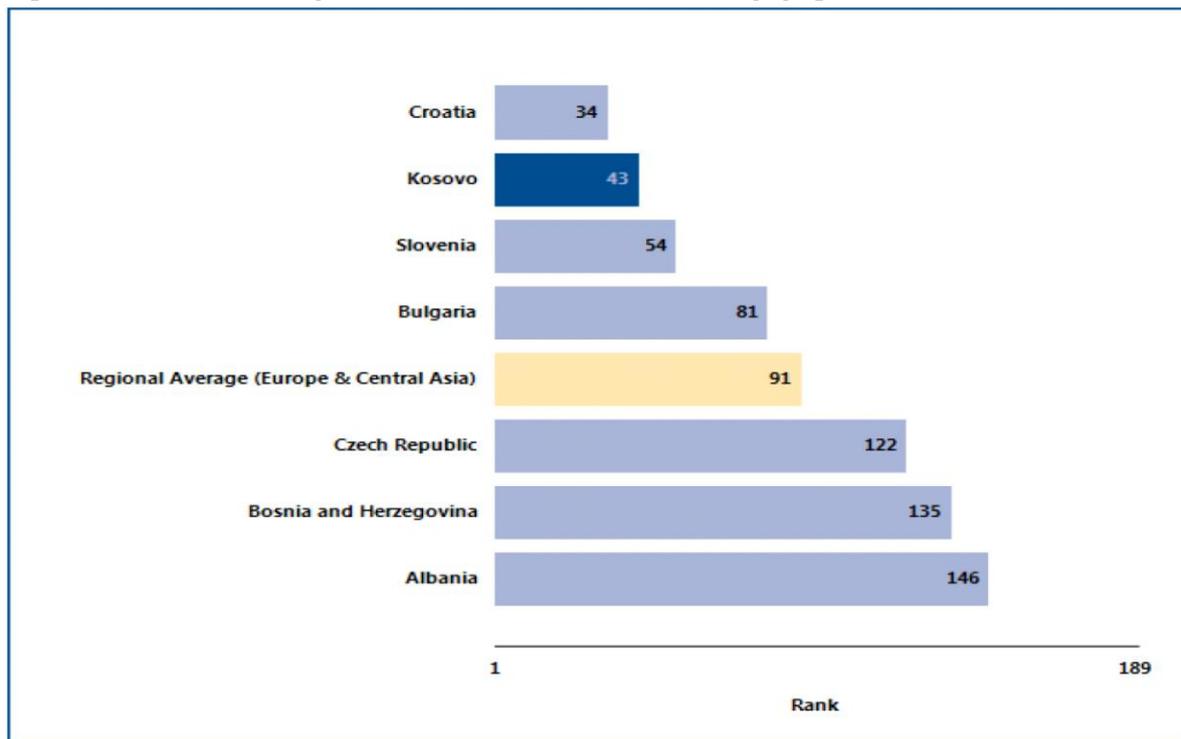
With regards to corporate governance, it could be said that this concept is relatively new in Kosovo. Despite substantial improvements made by the government, the main problem remains implementation, which still lags behind other countries (EBRD, 2013). Despite establishing some bodies that supervise corporate governance elements, according to some international reports, political influence in both the appointment of board members and deciding on policies of the company are highlighted as major problems (EBRD, 2013). More specifically, board members in publicly-owned enterprises are elected on the basis of political affiliation rather than on the basis of expertise.

In relation to tax laws, the analysis will be conducted in the light of comparisons with other countries and mainly by using the report issued by World Bank on Doing Business Indicators 2014. According to this report, Kosovo stands better than most of the countries in the region. In terms of the administrative burden of complying with taxes in Kosovo and how much firms pay in taxes, the report points out that on average: firms make 33 tax payments a year; spend 162 hours a year filing, preparing and paying taxes; and pay total taxes amounting to 15.4% of profit. Globally, Kosovo stands at 43 in the ranking of 189 economies on the ease of paying taxes.

⁹³http://www.kuvendikosoves.org/common/docs/ligjet/2008_03-L087_en.pdf

⁹⁴<http://www.kuvendikosoves.org/common/docs/ligjet/Law%20on%20accounting%20financ%20reporting%20and%20audit.pdf>

Figure 6.1. Kosovo and comparator economies rank on the ease of paying taxes



Source: Doing Business database.

6.4.2. Employment institutions and human resource development

The second element of social conditions at the national level is related to the creation of employment institutions. This is an important factor which determines how a society develops the capabilities of its present and future labour forces as well as the conditions of work and remuneration. Employment institutions have to do with aspects related to employment law, labour market flexibility, easiness to hire or lay-off employees, and reward systems.

Kosovo has adapted legislation related to employment and labour relations which in general are in line with European Union standards.⁹⁵ This law represents one of the major milestones with regard to labour relations, which aims at codifying employer – employee relationship in the country. More specifically, the law on labour should ensure the four fundamental principles including (a) freedom of association and recognition of the right for collective negotiations, (b) elimination of any kind of forced or violent labour, (c) elimination of child labour, and (d) elimination of discrimination at work. The supervision of this law is carried out by a specific body called the Labour Inspectorate. In one of the recent reports issued by European commission (2014), the implementation of this law remains quite limited, and the labour market in the country remains dysfunctional and characterised by widespread informality.

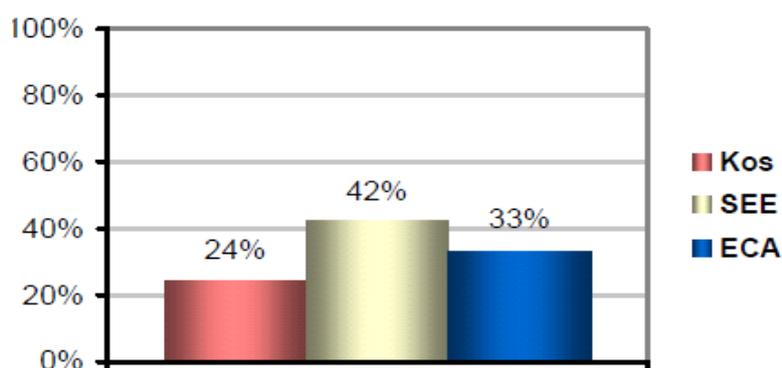
⁹⁵<http://www.kuvendikosoves.org/common/docs/ligjet/2010-212-eng.pdf>

The current labour legislation provides simple procedures and low costs for firms hiring and firing (World Bank, 2010). The labour taxes are relatively low, and according to the law, the minimum wage is 170 Eur. Despite the fact that hiring and firing is relatively easy, this legislation has significant limitations when it comes to flexible work arrangements (World Bank, 2010). For instance, there are some restrictions on fixed-term contracts, part-time work, working from home, alternative work schedules, overtime and night work. Though this law provides a basic structure for worker protections, many employees still work without contracts and as a result they do not get the working contract benefits they are due under the law. This is another sign that this law suffers from lack of enforcement.

The fundamental element of this part of social conditions is related to the ability of the society to develop an educated and skilled labour force. Development of human capital is meant to be a fundamental ingredient of innovating firms. This is so because well-educated and skilled people can generate new ideas and knowledge that foster innovation, and then the same are expected to be applied in the innovation processes in the workplace and in society at large (OECD, 2011). There are empirical findings that support this statement. For instance, Carlino and Hunt (2009) find that the presence of an educated and a trained workforce is the decisive factor in the inventive output of American cities: a 10% increase in the share of the workforce with at least a college degree rises (quality-adjusted) patenting *per capita* by about 10%. Though the economy of Kosovo is still far from being skill-intensive, there are already signs that the demand for skills is increasing and the nature of the skills demanded is changing toward more general skills that allow workers (and firms) to survive and quickly adapt to changes in demand (World Bank, 2010).

In relation to employees with university degrees, the BEEPS results indicate that the share of employees with university degrees or higher in Kosovo is twice lower than in South-eastern European (SEE) region (7 per cent compared to 15%), while compared with the ECA region the percentage is over three times lower (7 per cent over 24%).⁹⁶

Figure 6.2 Problems of Doing Business: Skills and Education*



* Percentage of firms indicating skills and education of available workers is not a problem

Source: World Bank (2010)

⁹⁶Europe and Central Asia (ECA) cover 23 countries

Further, the BEEPS report provides data on the training activities organised by firms. The results indicate that business firms in Kosovo are less likely to offer training to their employees. More specifically, the BEEPS results show that percentage of firms in Kosovo that offer training activities for their employees is 25 percent as opposed to 32 percent in SEE, and 35 percent in ECA region. Percentage of employees that participate in training in the production sector for firms that operate in Kosovo is significantly lower with only 9 per cent, compared to SEE with 46 per cent, and ECA region with 36 per cent (World Bank, 2010) (see Appendix L).

Vocational education is considered as a necessary ingredient to the working skill acquisition. This form of education is seen as an enabling factor towards the creation of an entrepreneurship culture which also enables an adaptation of educational outcomes to market needs. Kosovo has passed the Law on Vocational Education and Training which purports to regulate formal vocational education.⁹⁷ The Institutional framework of vocational education and training is not different compared to others in the region. However, the evidence shows that enrolment of the younger generation in vocational training in Kosovo is significantly less than in other neighbouring countries. In Kosovo, 43% of students entered vocational schools in 2009/2010, a figure which is fairly low when compared to 71% in Croatia and 61% in FYR Macedonia (OECD, 2013).

According to the World Bank report (2010), vocational education in Kosovo suffers from various weaknesses. For instance, this system of education is predominantly school-based, meaning that the programmes of education are not aligned with the emerging needs of a market economy, there is not enough practical training conducted in business companies: the private sector has not yet started to participate systematically in planning and implementing vocational training. It looks like the necessary link between the labour market and educational structures are poor and probably non-existent. Business entities are not involved in the process of workforce development strategies, making it impossible to provide them with skilled workers and technicians.

The poor social conditions indicated above are partly related to the low level of investment in the creation of a supportive environment that is conducive to the emergence of innovative firms. This third element of the social conditions will be discussed in the following sub-section.

6.4.3. Investment institutions

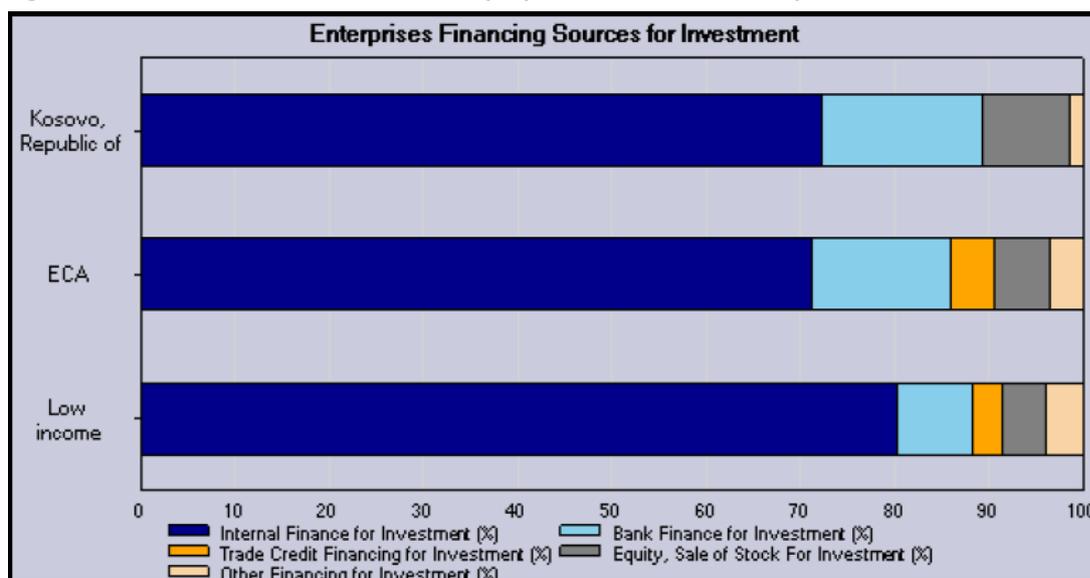
The third element of the social condition at the macro-level is related to investment institutions which lay down the ways in which a society ensures that sufficient financial resources are available on a continuing basis to sustain the development of its productive capabilities (Lazonick, 2013).

The analysis below is performed by being focused on three aspects related to this social condition. The first part has to do with the ability of firms to fund their activities through internal funds, the second part analyses the financial sector in the country, and the third provides an overview on the role of foreign direct investments on the creation of a conducive environment for the emergence of innovative firms.

⁹⁷<http://www.kuvendikosoves.org/common/docs/ligjet/Law%20for%20vocational%20education%20and%20training.pdf>

With regard to the ways in which firms finance their business activities, the enterprise survey (BEEPS, 2013) provides indicators on how firms manage to obtain the necessary funds to finance their operations and of the characteristics of their financial transactions. As the figure 6.4 below shows, around 73 percent of business activities are financed by internal funds, 17 percent from bank finance, 5 percent from equity, and sale of stocks, while the rest comes from other sources. According to these figures, firms in Kosovo use more internal sources to finance their investments than other countries in the Europe and Central Asia (ECA) region, and less than other low income countries. More on the credit conditions in the country will be discussed in the section where social conditions at a firm-level are conducted.

Figure 6.3 Source of finance for investment purposes in Kosovo and comparator countries



Source: BEEPS (2013)

The state of financial sector and financial institutions in Kosovo has been the subject of analysis in the fifth chapter. The financial sector is made up only of banking and non-banking institutions, meaning that there is no capital market in the country. In terms of the legal framework, indirectly applicable to capital markets, these would include: the Law of 29 December 2009 No. 03/L- 175 on Public Debt that regulates procedures for public debt issuance by the government of the Republic of Kosovo; the Law of 27 September 2007 No. 02/L-123 on Business Organizations that in Title VII (joint stock companies), Chapter 3 regulates the matter of shares and other securities, and the Law of 30 April 2012 No. 04/L-093 on Banks, Microfinance Institutions and Non-Bank Financial Institutions (EBRD, 2013). These three legal acts which indirectly address the issue of capital markets are considered to be of high quality and inspired by international practice (EBRD, 2013).

The banking system which is predominantly dominated by foreign banks seems to be the only source of external finance. The system is regulated by a specific law, the Law on Banks, Microfinance Institutions and Non-Bank Financial Institutions (Law No. 04/L-093), dated 12 April 2012.⁹⁸ Several

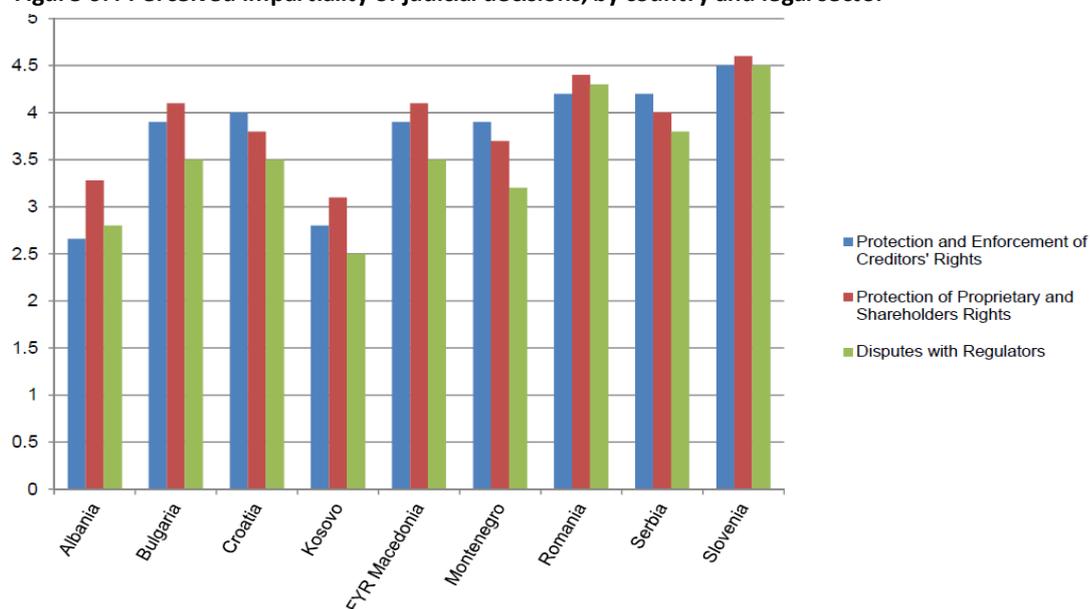
⁹⁸<http://www.kuvendikosoves.org/common/docs/ligjet/Law%20on%20banks.microfinance%20institutions%20and%20NFI.pdf>

international reports show that firms operating in Kosovo, particularly start-ups, micro firms and SMEs which amounts to the vast majority of firms operating in the market, may find it difficult to obtain loans from financial institutions. According to the OECD (2012b), these firms encounter various difficulties, starting from asymmetric information, insufficient collateral, and a lack of a credit track record. More on the firms' perspective on the availability of external finance, the level of interest rate, and so forth will be provided in the section where social conditions from micro-perspective is discussed.

In conclusion, the evidence presented in relation to social conditions necessary for the emergence of innovative enterprise at national level suggests that Kosovo has managed to establish an institutional framework which to a great extent seems to be compatible to European Union standards.

As it was discussed in the section related to governance institutions, the Kosovo's regulatory framework on business firms is to a great extent compatible with European and international standards (EBRD, 2013). The country has adapted a modern regulatory framework that regulate business activities, such as the Law on Business Organizations, the Law on Publicly-Owned Enterprises, the Law On Banks, Microfinance Institutions and Non-Bank Financial Institutions, the Law on Accounting, Financial Reporting and Audits, as well as the Law on Tax. Nevertheless, the major problem remains in the application of these legal structures. It is an overall impression that the major problem in the country is related to the rule of law (EBRD, 2013). As the Figure 6.5 below indicates that the perceived impartiality of judicial decisions in Kosovo is behind other western Balkans countries (excluding Albania).

Figure 6.4 Perceived impartiality of judicial decisions, by country and legal sector



Source: EBRD Judicial Decisions assessment, 2010

Human capital development remains a central issue for Kosovo. Despite the fact that Kosovo has adapted a legal structure, which to a great extent is also in line with European Union standards, the evidence shows that quality of human resources in the country is far behind other countries, such as those in the SEE and ECA regions. As it is provided by the World Bank (2010) report, the level of formal education of employees is significantly lower than in above mentioned regions. This is illustrated by the percentage of employees that have a university degree. Similarly, according to World Bank's (2010) BEEPS survey, there is a small percentage of firms that offer training activities for their employees. The percentage of employees participating in training activities is significantly lower than in comparator countries. The evidence shows that enrolment of the younger generation in vocational training in Kosovo is significantly less than in other neighbouring countries. In Kosovo, 43% of students entered vocational schools in 2009/2010, a figure which is fairly low when compared to 71% in Croatia and 61% in FYR Macedonia (OECD, 2013). Finally, the evidence shows that the educational outcomes generated by the education system are not adapted to the labour market requirements, since students at vocational schools and universities are not acquiring skills and competences that are sufficiently aligned with labour market needs.

The constraints related to the institutional governance and a lack of the human resources may be partly related to the financial capability of firms to implement their business projects. Despite the fact that the financial system established seems to be stable and well regulated, the evidence shows that financial funds sold by this system are very costly relative to comparator countries.

6.5. Social conditions of innovative firm at firm-level context

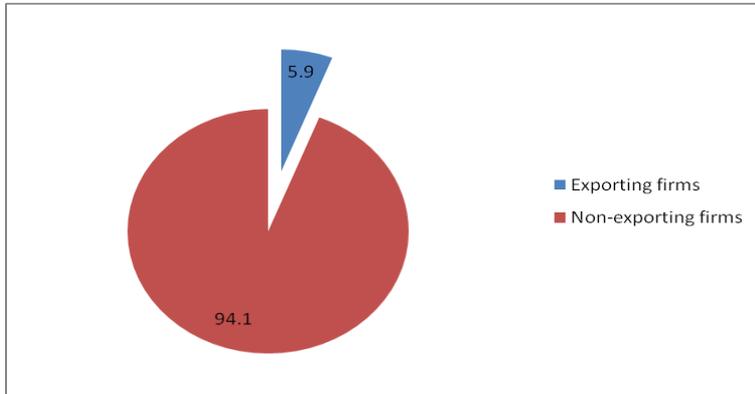
The basic function of a business entity is to transform its inputs into goods and services, which when sold generate rents (Coase, 1937). This process of transformation of inputs into goods and services is explained by various theories of firms. The theory of the innovative firm explains this process through three generic business activities: strategic control, organisational integration, and financial commitment. In the following section these three basic activities are analysed by using two sets of datasets. The first one is obtained by Business Support Centre of Kosovo (Hereafter BSCK) from a survey with a sample of 500 firms conducted in December 2012.⁹⁹ The questionnaire used has addressed different aspects related to strategic control components (the founding team size, concentration of ownership, educational level of founders), aspects related to organisational integration (issues related to innovation processes carried out by firms), and the aspects related to the way firms manage to obtain external finance in order to handle business activities. In addition to this dataset, the study uses the dataset on management practices from an original survey conducted by the author of this study in December 2013 (see Appendix C). This data set is used to investigate the intra-firm labour – management relations. More about the structure of the sample is provided in the methodology section above.

The following paragraph provides some basic statistical figures related to the questionnaire outcomes. One of the outcomes indicates that from the sample of 500 firms, only 5.9 percent of them are exporting firms. In terms of the ownership structure, 89 percent of firms belong to sole

⁹⁹The details of the survey as well as of the questionnaire are given in Appendix VI.

owners, 5 percent to partnerships, while only 5.9 belong to limited. Also in terms of sectors, the findings show that around 13 per cent of firms belong to the manufacturing sectors, while the majority of them belong to trading (57.9 per cent) and other service sectors (29.4 per cent).

Figure 6.5 Share of exporting and non-exporting firms (N: 500)



Source of data BSKC survey 2012

As stated above, only around 6 percent of firms belong to the exporting category. Empirical research suggests that exporting firms create sustainable competitive advantages based on unique technologies and innovation, which they leverage worldwide (Almor, 2006; Almor and Hashai, 2004; Stray, Bridgewater and Murray, 2001). Furthermore there are empirical studies arguing that exporting firms frequently have a superior capability to perform innovative activities (Almor, 2006; Knight and Cavusgil, 2004). Exporting activities are important especially for small and medium-sized firms as they provide access on information and resources not available internally (Davidson and Honig, 2003). This may be particularly important for firms operating in low income countries. Drawing on these features of difference between exporting firms and non-exporting firms, for theoretical purposes, this study assumes that exporting capability may be interpreted as an indicator of strategic intent. According to Hamel and Prahalad (1989: 64), the concept of strategic intent is:

“... focusing the organisation’s attention on the essence of winning; motivating people by communicating the value of target; leaving room for individual and team contribution; sustaining enthusiasm by providing new operational definitions as circumstances change; and using intent consistently to guide resource allocations. Strategic intent captures the essence of wining”.

In this case, ability to export is assumed as an outcome, or degree of success of an innovative firm, and it is used throughout this section to investigate innovation based factors (strategic control, organisational integration, and investment commitment) that differentiate this type of firm from other non-exporting firms. Innovative firms are here those that are generating products and process new to the firm, not necessarily new to the market or internationally. Therefore, the findings presented in the following sub-sections are specifically based on this differentiation.

6.5.1. Empirical results on strategic control factors at firm-level

In order for firms to innovate, it requires that resources be allocated strategically. The social condition that enables transformation of strategy into innovation is strategic control. According to Lazonick (2013) this element of social conditions involves a set of relations that gives decision-

makers power to allocate the firm's resources to confront technological, market, and competitive uncertainties that are inherent in the innovation processes. Those that occupy such positions must have both the abilities and the incentives to allocate resources to innovative investment strategies. Their abilities depend on their knowledge, experience, and training. Their incentives depend on whether the interests of strategic decision-makers are in line with the interest of the firm they manage. Therefore, from the perspective of the theory of innovative firm it is important to understand who are the owners and whether the company is run by owners, managers, or by both of them, and how their interests are aligned with the strategy followed by the firm.

Several proxies have been used to investigate the strategic control relations, such as structure and characteristics of the ownership, relationship between owners and managers, concentration of ownership (minorities and majority owners), interactions between managers and owners. With regard to the abilities of those who have power to take decision to allocate strategically internal resources into innovation activities, the proxies used include the educational attainment of decision-makers, experiences accumulated over the years, and training received.

The questionnaire consisted of questions that captured characteristics of the firms' founding team, which was filled in by one of the founders. More specifically this part of the questionnaire gathered information about the structure of the ownership, relationship between owners (in cases when there's more than one owner), formal education of the owners, and previous working experience.

In the following a general statistical overview of the strategic control indicators such as the way that the ownership is concentrated among firms, how the power is distributed, relationships between shareholders, and indicators in relation to the owners' abilities (educational attainment, experience, and trainings activities) are provided. As previously stated, the process of analysis is carried out on the basis of a comparison of two groups of firms, those that deal with exporting activities, and those that are not engaged in exporting activities. In order to find out whether factors that differentiate exporting firms from non-exporting are statistically significant, a non-parametric technique called the Mann-Whitney U test is performed. This statistical technique is used to compare two groups from the same population. In addition to that, in order to investigate which of the explanatory variables has the strongest impact on the exporting activities, a binary logistic regression is conducted.

Empirical studies suggest that characteristics of the firm owners/founders are central to the growth of firms. The number of founders involved at the start of the firm is a topic largely discussed in the research studies. Larger founding teams are seen as more likely to bring in valuable resources such as human capital or financial resources. In this context, larger number of founders is also assumed to be in a better position to evaluate and recognize business opportunities in the market. In particular, empirical evidence suggests that the larger the founding team, the more heterogeneous it is in terms of competences, knowledge, wisdom and experience, and therefore it can more effectively face everyday problems (Janzet *al.*, 1997). Other research does indicate that there are not just positive aspects, but also some negative aspects related to multi-founder ventures, and these aspects have to do with the monitoring processes, shirking, distributing incentives (Mosakowki, 1998), and group conflict elements (Amason and Sapienza, 1997).

The empirical evidence obtained from this analysis shows that vast majority of firms are owned by a single owner (87.1 percent). This is also characteristic of non-exporting firms. As the Table 6.1 below

indicates, exporting based firms differ considerably from other firms. 52 percent of them are owned by more than two owners.

With regard to power concentration, the results clearly indicate that in the vast majority of firms the strategic control is heavily concentrated on one person. Concerning decision-making control, the questionnaire contained a more specific question, namely whether strategic business decisions are made by the owner, or by managers of the firm. The findings indicate that 80 percent of firms included in the sample are managed by the owner, and 20 percent by managers. This picture changes significantly when it comes to exporting firms. The results show that 74.1 percent of firms are managed by managers, as opposed to non-exporting firms where 20.2 percent are managed by managers. Drawing on these findings, it could be expected that power distribution would be one of the striking differentiating factors between these two groups of firms.

Educational attainment is a basic component of the founder's human capital. More specifically this component is related to the knowledge acquired by founders during formal education. In general, this variable is found to be positively related to the likelihood not only of the survival of firms, but also as a variable that has a positive impact on growth. As the Table 6.1 below indicates, there is a striking difference between two groups of firms. While 81.5 percent of exporting firms are owned by people who hold at least a university degree diploma, for non-exporting firms this percentage is only 37 percent.

Entrepreneurship literature regards prior working experience in the same field of economic activity as a very important factor. Founders who possess previous experience are more likely to share knowledge and information and thus greater knowledge of industry practices and routines will be available to the entire firm members. There are empirical findings indicating that prior founding experience can help entrepreneurs raise start-up capital, speed a prospective new venture's transition to a liquidity event and avoid outright failure of the future new firm (Shane and Stuart, 2002). The results indicate that the majority of founders (55.8 per cent) had no or little prior experience in the same industry. It looks like prior experience has a significant impact on the capability of firms to export. As findings on the Table 6.1 below indicate 48.1 per cent of founders reported to have had prior experience in the respective industry, as opposed to 40.1 percent of those that are not involved in any exporting activity and that reported prior experience in the respective industry.

Findings also show that in-house training could be one of the factors that may differentiate these two groups of firms. In total, only 37.2 percent of firms have engaged their managers in training activities. Again, the results show clearly that majority of exporting firms organise or are engaged in management training. 70.4 percent of exporting firms are engaged in managers' training activities, as opposed to non-exporting firms where only 27.9 percent of them reported to be engaged in training activities. In terms of the size of the firms (in terms of number of employees) and how ownership is related to it, the evidence suggests that 51.9 percent of small and medium firms are owned by more than 2 shareholders, while the opposite figure is obtained for micro firms where over 90 percent of them have a sole owner.

In order to investigate which of the factors have most statistical significance in relation to the differentiation between exporting and non-exporting firms, the Mann-Whitney U test was conducted. The results of this test are provided in the following section.

Table 6.1. Descriptive statistics on strategic control indicators (N:500)

Variable		Total sample	Exporting	Non-exporting
Ownership structure	One owner	87.1	48.0	90.3
	More than two owners	12.9	52.0	9.7
Relationship between owners	Family	20.9	11.1	20.5
	Non-family	79.1	88.9	79.5
Power distribution	Owner	80.0	25.9	79.8
	Manager	20.0	74.1	20.2
Experience before starting business	Experience	44.2	48.1	37.2
	Non-experience	55.8	51.9	62.8
Formal education	University degree holder	29.2	81.5	37.0
	Secondary school	70.8	18.5	63.0
Management training	Training	37.2	70.4	27.9
	No training	62.8	29.6	72.1

Source of data: BSCK 2012

6.5.1.1. The Mann-Whitney U test on strategic control factors

The Mann-Whitney U test is used to investigate whether factors that differentiate exporting firms from non-exporting firms have any statistical significance. The test revealed that from six variables used in the exercise, four of them turned out to be statistically significant in explaining the differences between these two groups of firms. More specifically, the results suggest that ownership structure can explain differences between two groups of firms. This is shown by the p value and size of effect ($p < 0.000$; $r^2 = 0.32$). As set out above, 52 percent of exporting firms are owned by more than 2 owners as opposed to other non-exporting firms which mainly have a sole owner. The distribution of power is another component which is statistically significant in explaining the difference between the two groups of firms. This can be shown through the p value which is far below 5 percent ($p < 0.000$), while the effect size is 0.22 ($r^2 = 0.31$). Two other indicators that showed to have statistical significance in the difference between two groups are educational attainment ($p < 0.000$; $r^2 = 0.24$), and managerial trainings ($p < 0.001$; $r^2 = 0.22$). The results show that shareholders' relationships and prior experience of owners do not have any statistical significance in the explanation of the difference between two groups of firms. This is shown from the figures given in the Table 6.2 below where the p value for both of them is significantly higher than 5 percent. Based on these findings the following can be concluded. If the empirical evidence suggests that exporting firms are endowed with some specific characteristics which are not apparent amongst non-exporting firms, then the evidence obtained from this study indicates that the success of exporting firms in Kosovo probably is associated with strategic control factors. More specifically, the evidence suggests that success of exporting firms may be a function of the way the power is distributed in firms. In other words, success depends on whether strategic control is given to owners or managers. Managers or owners are the ones who decide how to allocate the firm's resources to confront the technological, market, and competitive uncertainties that are inherent in the innovation. Also the evidence indicates that educational attainment, ownership concentration, and finally training activities have a strong impact on the success of exporting firms.

Table 6.2. The Mann-Whitney U test results – Strategic control indicators

Significant variables	Mean rank		U	z	Rsq	p < 0.05
	Exporting	Non-exporting				
Ownership structure	269.86	188.21	2603.500	-6.191	0.32	.000
Relationship between owners	249.11	227.74	5262.000	-1.179	0.056	.238
Power distribution	333.20	214.23	2586.500	-6.383	0.31	.000
Experience before starting business	205.48	230.48	5170.000	-1.136	0.054	.256
Formal education	110.85	191.90	2615.000	-4.439	0.24	.000
Management training	137.70	234.73	3340.000	-4.647	0.22	.000

Source of data: BSCK 2012

The Mann-Whitney U test does not tell us which of these factors influence mostly on the differentiation between two groups of firms. For this reason, the binary logistic regression is conducted. This is a statistical technique which assesses the impact of a set of predictors on a dependent variable (differentiation between exporting and non-exporting firms).

6.5.1.2. The logistic regression results on strategic control factors

Direct logistic regression was performed to assess the impact of a number of strategic control variables on the likelihood that firms would have greater success on exporting activities. The model contains variables from the Mann-Whitney U test that turned out to be statistically significant in explaining the differentiation between exporting and non-exporting firms. Before the exercise was conducted, the model was tested to meet the necessary requirements for this specific statistical technique. More specifically, the model contains four independent variables - the ownership concentration, the power distribution, the educational attainment, and training activities. The full model containing all predictors was statistically significant, $\chi^2(4, N = 500) = 50.937, p < .000$, indicating that the model was able to distinguish between firms which reported and did not report the exporting activities. The model as a whole explained between 15.41% (Cox and Snell R square) and 36.3% (Nagelkerke R squared) of the variance in exporting, and correctly classified 93.5% of cases. As shown in the Table 6.3 below, all the explanatory variables made a unique statistically significant contribution to the model. The strongest predictor of probability that firms would engage in exporting activities was the ownership concentration variable with p equal to 0.001, followed by power distribution variable with p=0.07. With positive odds associated for both these variables, it could be interpreted that firms that are controlled by more than two owners are 5.3 more likely to be engaged in exporting activities, and 4.2 (as above) if they are run by a manager and not by the owner. Two other statistically significant variables also have positive B values, indicating that firms which are owned by two or more owners and firms that are engaged in training for their managers are 3.6 (training activities) and 3.1 (educational attainment) times more likely to report exporting activities than the other group of firms.

Table 6.3. Logistic regression on strategic control factors

	B	S.E	Wald	df	Cox and Snell R sq.		Odds ratio	90% C.I. for Odds	
					Nagelkerke R sq.	p		Lower	Upper
Ownership structure	1.665	.500	11.095	1		.001	5.284	1.984	14.073
Power distribution	1.399	.516	7.366	1		.007	4.052	1.475	11.128
Formal education	1.122	.560	4.015	1		.045	3.072	1.025	9.211
Management training	1.281	.511	6.273	1		.012	3.600	1.321	9.810
Constant	-.605	.465	1.694	1		.193	.546		

Source of data: BSCK 2012

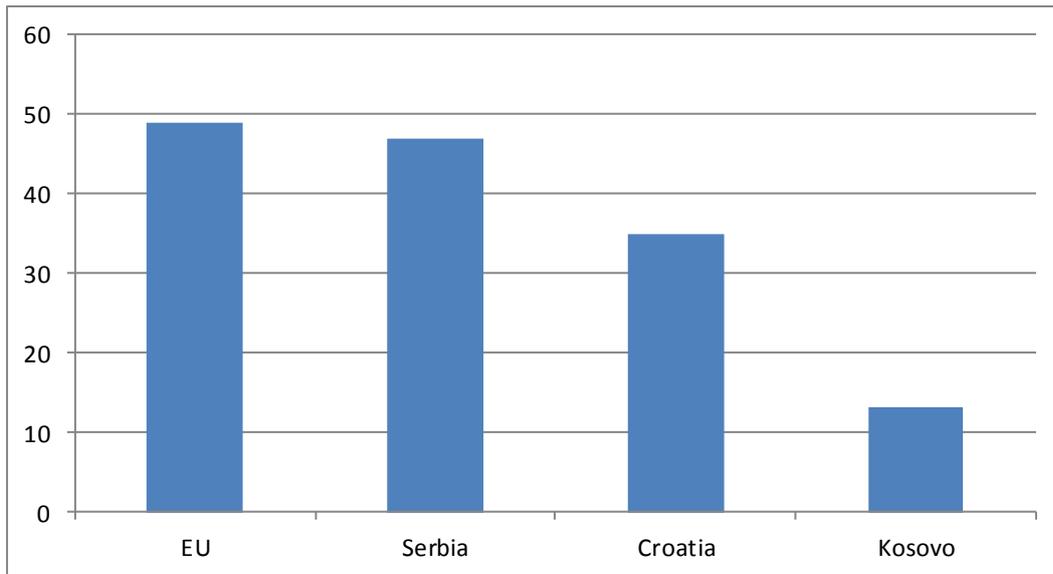
These outcomes indicate that strategic control factors can be differentiating factors between two groups of firms. More specifically, knowledge, and other working skills are shown to be crucial factors for enhancing firm performance. Specific firm training – as it is the case with management training - can therefore increase the competency of managers and workers, competency which gradually becomes a strategic control asset. Benefits of training accumulated from the past builds “bundles” of routines that can be difficult to understand and imitate (Koch and McGrath, 1996). They can also improve competitive advantage and consequently lead to superior performance. In summary, the results obtained from the regression exercise indicate that ownership structure, distribution of power, educational attainment, and organisation of training sessions for managers can be significant predictors to the greater business success.

6.5.2. Empirical results on organisational integration factors at firm-level

As previously stated, the innovative firm theory assumes that when firms are endowed with strategic control factors, then these factors should be able to transform their resources into specific innovative activities. The implementation of an innovative activity requires organisation, i.e. it requires a social condition that integrates different hierarchical responsibilities and functional capabilities (Lazonick, 2002) which end up with the production of higher quality, low cost products and services. More specifically, this element of the social conditions includes a set of relations that enable firms to transform inputs into innovative outputs. As Lazonick (2013) asserts, the need for organisational integration derives from the developmental complexity of innovation process – that is, the need for organisational learning. In this context, modes of compensation in the form of work incentives are important instruments for integrating individuals into organisation. Among other things, according to Lazonick (2012) the ways in which labour-management relations are organised can motivate employees as individuals to engage in collective learning.

The following section presents results related to factors that firms consider most relevant to organise their business activities. The aim is to find out which business activities distinguish exporting from non-exporting firms. The first part provides some descriptive statistical data, followed by the Mann-Witney U test, and logistic regressions. Before a short overview on descriptive statistics is provided, it is worth emphasising that only 13.2 percent of surveyed firms reported to have been engaged in innovation activities. This outcome shows that the share of total firms involved in innovation is far behind EU countries and some other neighbouring countries like Serbia and Croatia.

Figure 6.6 Share of innovative enterprise



Source: EUROSTAT survey reference 2010 – 2013

For Kosovo: BSCK survey 2012

As might be expected, exporting firms seem to be more innovation oriented than non-exporting firms. Results indicate that 38 percent of exporting firms reported to be engaged in innovation activities, compared to only 10 percent of non-exporting firms.

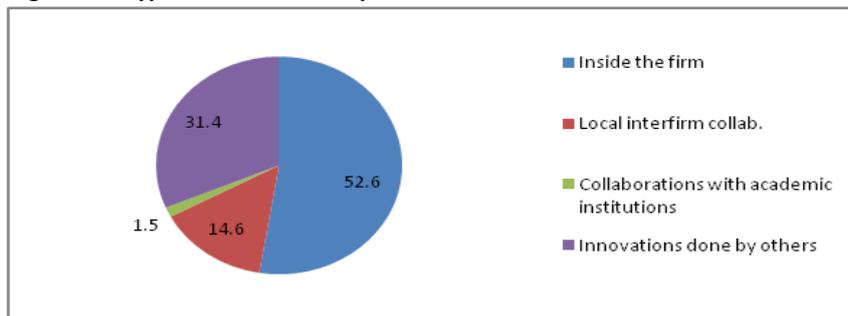
Several proxies are used to investigate the sources of organisational learning, namely whether firms learn most from the market (supplier, competitors, consumers), or the organisational learning is put together internally and therefore it derives from the experience of their workers, the ideas generated inside the organisation, or the time given to employees to generate new ideas. Intending to find out whether firms run their business activities based on previous plans, the availability of a business plan is used as a proxy. Since the aim is to investigate differentiating factors between exporting and non-exporting firms, business collaboration with international companies is used also as one of the explanatory variables. The second category of proxies is related to the way the innovation process is organised, namely whether innovation processes are organised independently or in collaboration with other external entities (academic institutions and research institutions, business associations). The third variable has to do with the labour- management relationships, i.e. how organisations create incentives for people with different hierarchical responsibilities and functional capabilities.

As the Table 6.4 below indicates, only 23 percent of firms organise business activities based on a formally written business plan. This is not the case with exporting firms, which organise the innovation activities based on a formally written business plans. More particularly, 70.4 percent of them reported that they organised business activities based on a previously agreed business plan, as opposed to non-exporting firms with only 29.3 percent. A business plan is often seen as a discipline which encourages firms to more rigorously think through their business strategy and subject it to market research (Gruber, 2007).

The questionnaire used during the survey contained some specific questions intended to shed light on the factors that firms view as more relevant for the generation of new knowledge. Firms were asked to rate factors which help them to generate new ideas, and in this way to create a new product, service or process, or that may support substantial modification of an actual product, service or process. The questionnaire was structured on a 5 point Likert scale. Questions aimed at investigating the specific linkages that can act as sources of knowledge. The findings indicate that 44 percent of firms view the market (competitors, suppliers, and customers) as a most valuable source for new knowledge generation, with higher a percentage obtained by exporting firms, 70.4 versus 41.6 percent for non-exporting firms.

With regard to the way the innovation process is organised, firms were asked to provide information on whether the process was organised exclusively internally, or through collaboration with other firms. The results indicate that 52 percent of firms organise the innovation process exclusively based on their own resources. 14.6 per cent of firms reported that they organised the innovation process in collaboration with other local firms, while a larger share of firms (31.4 per cent) reported they purchase patents and brands from other firms to launch in the market. The results indicate the contribution of academic and other research institutions in the innovation process is significantly small. In other words, only 1.5 per cent of firms reported that they have established innovation collaboration with academic and research institutions in the country.

Figure 6.7 Type of collaboration processes



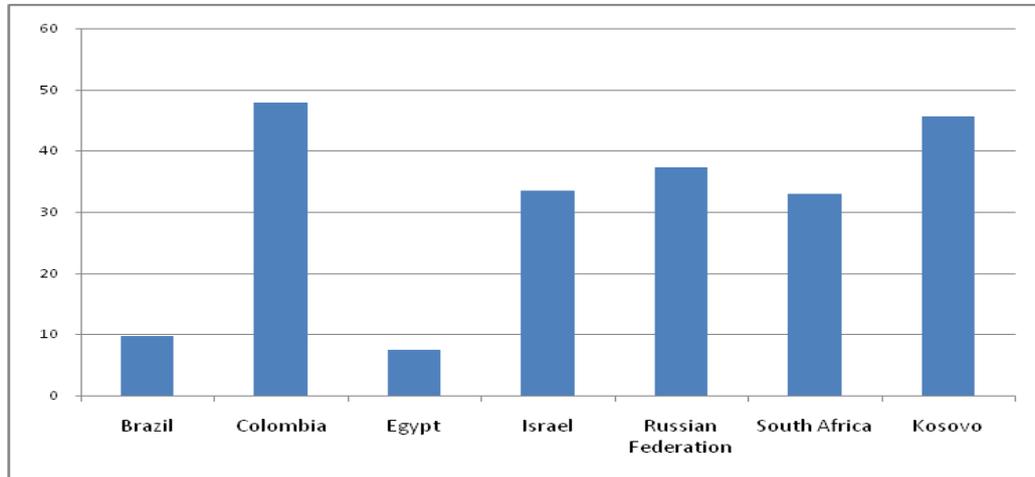
Source of data BSCK survey 2012

Talking about the way the innovation process is organised, the results show that there is no significant difference between exporting and non-exporting firms. This is quite important as it suggest that frequency of innovation is not higher in exporters than in non-exporters but the quality of innovating related factors like governance, and management quality seems to be qualitatively better in the case of exporters. The only difference relates to the sphere of collaboration with other local firms, where 40 percent of exporting firms reported that they organise the innovation process through collaboration with other local firms versus 15 percent of non-exporting firms. However, based on these findings, it could be concluded that the capacity to link up or inter-organisational capabilities is much better for exporting firms as opposed to non-exporting firms.

Nevertheless, comparing these results with the outcomes of some other countries provided in one of the UNESCO's reports results of the 2011 UIS pilot data collection of innovation statistics, the

collaboration processes in Kosovo stands better than in some other countries such as the Russian Federation, or Israel, and much better than in some developing countries like Egypt.¹⁰⁰ Partly, this may be reflection of weak firm level innovation capabilities which are in need of using external sources, especially, value chain partners.

Figure 6.8. Innovation collaboration of firms



Source: UNESCO report

For Kosovo source of data: BSCK survey 2012

In the question of whether firms attempted to innovate but failed, only 13.9 percent of firms reported that they had tried to innovate but then failed to do so. There is a significant difference between exporting and non-exporting firms. For instance, while the percentage of exporting firms that reported to fail in innovation is 44.4 percent, the percentage for non-exporting firms is significantly lower, only 6.5 percent. Exporting and non-exporting firms are different also in terms of changes in applied marketing strategies (see the Table 6.4 below).

Establishing a global network may develop new capabilities that firms can leverage across national and international markets (Autio *et al.*, 2000). Through businesses linkages created with foreign partners, firms obtain and integrate knowledge and skills necessary for product and other innovative processes. By setting up innovation relationship with international partners firms improve their competitiveness at home, but also improve opportunities to compete internationally. In the context of international business linkages, the questionnaire had a specific question. Particularly firms were asked to provide information as to whether they have any partnerships with foreign firms. The results show that a small percentage (12.7 per cent) of sample firms managed to establish some kind of business collaboration with foreign firms. With regard to differences between two groups of firms, as it may be expected, a large proportion of exporting firms have established formal partnership relationships with foreign partners – 52 percent, in the group of non-exporting firms, only 10 percent of them reported to have formal partnerships with foreign partners.

¹⁰⁰ <http://www.uis.unesco.org/ScienceTechnology/Documents/Innovation-statistics-en.pdf>

Table 6.4. Descriptive statistics on organisational indicators (N:500)

Variable		Total sample	Exporting	Non-exporting
Business plan	Yes	23.3	70.4	29.3
	No	76.7	29.6	70.7
Collaboration	Yes	45.6	52.6	44.5
	No	54.4	47.4	55.5
Market as source of learning	Important	44.2	70.4	41.6
	Not important	55.8	29.6	58.4
Institutes as source of learning	Important	30.2	37.0	30.9
	Not important	69.8	63.0	69.1
Staff's ideas as source of learning	Important	39.5	51.9	39.3
	Not important	60.5	48.1	60.7
Time given to staff members for innovation purposes	Important	37.2	48.1	36.3
	Not important	62.8	51.9	63.7
Tried to innovate by failed	Yes	13.9	44.4	6.5
	No	86.1	55.6	93.5
Change of management methods	Yes	10.8	29.6	20.7
	No	89.2	70.4	79.3
Change of marketing strategy	Yes	13.5	22.2	9.5
	No	86.5	77.8	90.5
Foreign partners	Yes	11.6	51.9	10.3
	No	88.4	48.1	89.7

Source of data: BSCK 2012

Apart from factors that support successful innovation, firms were also asked to estimate on a 1-5 point scale constraining factors to the organisation of innovative processes. Results reveal that two major constraints are the cost of finance and the cost of innovations, followed by uncertain market demand and lack of technology and market information. For exporting firms the main constraint looks to be the financial cost, which is not that different from non-exporting firms. In general it appears that general environment conditions have the same impact on the two groups of firms.

Table 6.5. Constraints to the innovation processes (N: 500)

	Mean	Std. Dev.	Total firms		Exporting		Non exporting	
			Not (that) important*	Important /very important**	Not (that) important*	Important /very important**	Not (that) important*	Important /very important**
Financial Cost	3.8	1.243	16.04	63.1	18.5	64.7	14.2	64
Innovation cost	3.6	1.245	15.5	56.2	38.9	38.9	12.6	58
Lack of knowledge	3.2	1.247	26.1	40.8	50	22.2	23.1	42.2
Lack of technology and market information	3.3	1.249	24.6	47.9	35.7	37.5	16.3	49.1
Uncertain market demand	3.4	1.251	23.5	48.6	30.9	31.6	19.1	49.4

*Responses of 1 or 2 in a 1 - 5 Likert scale ** Responses of 4 - 5 in a Likert scale

Source of data: BSCK 2012

6.5.2.1. The Mann-Whitney U test findings on organisational integration

Through the Mann-Whitney U test in the following section, the factors that differentiate exporting firms from non-exporting firms are investigated. The variables included in the model are the same as that provided in the above Table 6.5. As the Table 6.6 below indicates, from all variables included in the model (10), half of them seem to be statistically significant in explaining the difference between two groups of firms. It looks like it matters significantly whether firms organise their business relationships based on business plans. As was shown in the statistical description given above, 70 percent of exporting firms organise their business activities based on a previous developed business plan, as opposed to only 29 percent of non-exporting firms.

The test shows that the difference is statistically significant, since the p value is 0.000 and the size effect is 0.21. Another variable which has a significant impact in explaining the difference between the two groups of firms is how firms acquire knowledge from the market; namely from the competition, suppliers and from customers. This can be indicated by the p value which is equal to 0.003. It appears that it matters whether firms take business risks or not. The test outcome suggests that when it comes to risk-taking, there is a strong difference between two groups of firms. This can be signified by the p value and r square (**p < 0.000; r² = 0.31**). Another very strong indicator of the difference between two firms is related to foreign partners. As was shown in the section on descriptive statistics, 52 percent of exporting firms reported to have permanent relationships with foreign companies (**p < 0.000; r² = 0.30**), as opposed to 10 percent from non-exporting firms. Other factors that indicate a greater statistical significance in the differentiation between two groups include the way firms organise their marketing strategy (**p < 0.034; r² = 0.10**). It looks like exporting firms change and adapt their marketing strategy according to the market needs more often than non-exporting firms.

Table 6.6. The Mann-Whitney U test results – Organisational integration indicators

Significant variables	Mean rank		U	z	Rsq	p < 0.05
	Exporting	Non-exporting				
Business plan	140.70	234.54	3421.000	-4.443	0.21	.000
Collaboration	59.80	65.21	284.000	-.367	0.03	.714
Market as source of learning	167.20	232.88	4136.500	-2.920	0.14	.003
Institutes as source of learning	215.87	229.82	5450.500	-.663	0.03	.507
Staff's ideas as source of learning	202.02	230.69	5076.500	-1.290	0.06	.197
Time given to staff members for innovation purposes	203.48	230.60	5116.000	-1.238	0.06	.216
Tried to innovate by failed	134.00	212.63	3240.000	-6.681	31.2	.000
Change of management methods	201.11	220.71	5052.000	-1.100	0.05	.271
Change of marketing strategy	189.33	216.72	4734.000	-2.115	0.1	.034
Foreign partners	133.22	223.61	3219.000	-6.237	0.3	.000

Source of data: BSCK 2012

In order to find out which of these statistical significant factors have the strongest influence on the differentiation between two groups of firms, a binary logistic regression is conducted. This statistical technique assesses the impact of a set of predictors on a dependent variable (differentiation between exporting and non-exporting firms).

6.5.2.2. The logistic regression results on organisational factors

A logistic regression was performed to ascertain the effects of business plan, market as source of for learning, the willingness of firms for risk taking, the ability to change marketing strategy according to market needs, and finally having a foreign business partner, on the likelihood that firms will report any exporting activity. The logistic regression model was statistically significant, $\chi^2(5) = 60.982$, $p < .0000$. The model explained 37.0% (Nagelkerke r^2) of the difference between exporting and non-exporting firms and correctly classified 93.9 percent of cases. As shown in Table 6.7 below, from five variables included, four of them made a unique statistically significant contribution to the model. The strongest predictor of reporting a difference between two groups of firms was the willingness of firms to undertake business innovation activities regardless of the possibility to fail, recording an odds ratio of 7.7. This odd ratio indicated that firms that take business risks are 7 times more likely to be engaged in exporting activities than firms that do not take business risks, controlling for all other factors in the model. The second strongest predictor of the difference between two groups of firms is the capacity of firms to link with foreign partners. This variable has an odds ratio of 6.2,

indicating that exporting firms were around six times more likely to report the relationship with foreign partners as a significant factor for conducting exporting business activities. Organising business activities based on a business plan, with an odds ratio of 5.8, also seems to be a significant predictor in explaining. Evidence suggests that exporting firms are 2.6 times more likely to report the market as a source of learning than non-exporting firms. The least effect on the variance between two groups of firms seems to have been the ability of firms to change marketing strategy according to market demands.

Table 6.7. Logistic regression on organisational integrations factors

	B	S.E	Wald	df	Cox and Snell R sq.		Odds ratio	90% C.I. for Odds	
					Nagelkerke R sq.	p		Lower	Upper
Business plan	1.753	.511	11.785	1		.001	5.774	2.122	15.713
Market as source of learning	.961	.502	3.671	1		.055	2.615	.978	6.989
Attempting to innovate but failed	2.047	.510	16.110	1	0.15	.000	7.743	2.850	21.035
Change of marketing strategy	-.421	.600	.491	1	0.37	.483	.657	.202	2.129
Foreign partners	1.829	.469	15.206	1		.000	6.230	2.484	15.625
Constant	-1.233	.636	3.754	1		.053	.291		

Source of data: BSCK 2012

The empirical outcomes obtained from both exercises indicate that factors that enable the integration of organisational activities matter. More specifically the results indicate that risk-taking capability is significant factor. This indicates that exporting firms effectively organise strategic resources, and exploit new opportunities, and specifically launch projects with uncertain outcomes and tentative projected returns on investment (Scheepers, Hough and Bloom, 2008). It is expected that new projects involve risks, which can be minimised either by the knowledge residing in the firm, by unique capabilities or collaboration with other firms, specifically with foreign partners. Collaboration with foreign partners is another specific differentiating factor emerging from the analysis. Through collaboration with foreign partners, firms share resources including: ideas, know-how, technologies, and staff between two or more organisations in order to create a solution to a given problem (Lawton Smith and Dickson, 2003). Partnerships with foreign firms can also minimise risks which arise when firms test markets, and in this manner over time they assimilate risk-taking capabilities which makes them more successful than others (Scheepers, Hough and Bloom, 2008).

6.5.2.3. Empirical results on the labour-management relations

An important part of organisation integration is related to the labour-management relations. Modes of compensation in the form of work incentives are important instruments for integrating individuals into an organisation. The way in which labour-management relations are governed can motivate employees as individuals to engage in collective learning (Lazonick, 2012).

As was stated in the methodology section, this part of organisational integration will be analysed by using the evidence gathered by another dataset. This is due to the reason that the dataset obtained from BSCK has not contained specific and direct questions on how these relations are governed by firms operating in Kosovo. In order to shed light on how firms operating in this economic setting deal with these issues, evidence from another dataset has been used, which was generated from the survey conducted in December 2013. In addition to this dataset, the outcomes generated from the analysis will be compared with findings provided by the transition report of 2014 provided by European Bank for Reconstruction and Development (EBRD).

The survey conducted in 2013 was based on the Bloom and Van Reenen (2010) methodology which aimed at investigating managerial practices in developed as well as developing countries. More specifically, the subject of this analysis are three areas of managerial practices, namely areas related to monitoring, the way targets are set, and incentive practices. This is so because these three areas of managerial practices more directly address labour-management relations. The monitoring area covers issues related to the way managers supervise the firm's employees (performance tracking, reviewing, dialog, consequence, and the clarity of communication). The targets area covers issues related to the timescale for production targets, as well as their difficulty and the awareness of employees of them. The incentives area covers issues related to the ways in which firms deal with promotion, practices for addressing poor performance of employees, and the basis on which the achievement of production targets was rewarded.

Before discussing the monitoring and incentive practices, it is worth mentioning that one of the findings in the relation to the way how targets are set suggests that the majority of firms are focused on financial/operational targets. Around 68 per cent of respondents answered that targets are predominantly based on accounting and financial figures, rather than non-financial targets which are seen as more inspiring and challenging than financial ones alone. Further, the results show that in most of the cases business targets are imposed by senior managers, rather than properly discussed and agreed upon with the employees.

With regard to monitoring processes, the results show that this very important tool is performed on an ad-hoc basis.¹⁰¹ In the first question whether tracking is ad hoc and incomplete, or whether performance is continually tracked and communicated to all staff, the majority of firms selected the first score, which indicates that tracking is done on an ad-hoc basis and that there are processes which are not tracked at all. That is illustrated by the mean which was scored 1. The best managerial practice requires that managers monitor the work of employees on a continuous basis and communicate the firm performance. This practice is supposed to be carried out on a formal and an informal basis to all staff members by using a range of visual management tools (Bloom and Van Reenen, 2010).

The findings reveal that the workers' performance is reviewed infrequently, typically when a success or failure is spotted or performance is reviewed periodically but without a clear follow-up plan adaptation. The modern models of managerial practices require reviewing performance on a continuous basis and based on clear indicators. Moreover, the results are supposed to be communicated to all staff members with the ultimate aim of ensuring continuous improvement. Another relatively poor score was obtained in relation to how feedback on performance is provided to the workforce. As results in the Figure 6.10 below show, feedback on performance is either not given at all or conversations overly focus on issues that are not relevant to the business improvement. Again, modern monitoring models require managers to provide regular review/performance conversations focused on problem solving and aiming to address root causes. The ultimate aim of the feedback is not to penalise workers, but quite the reverse. The aim of the

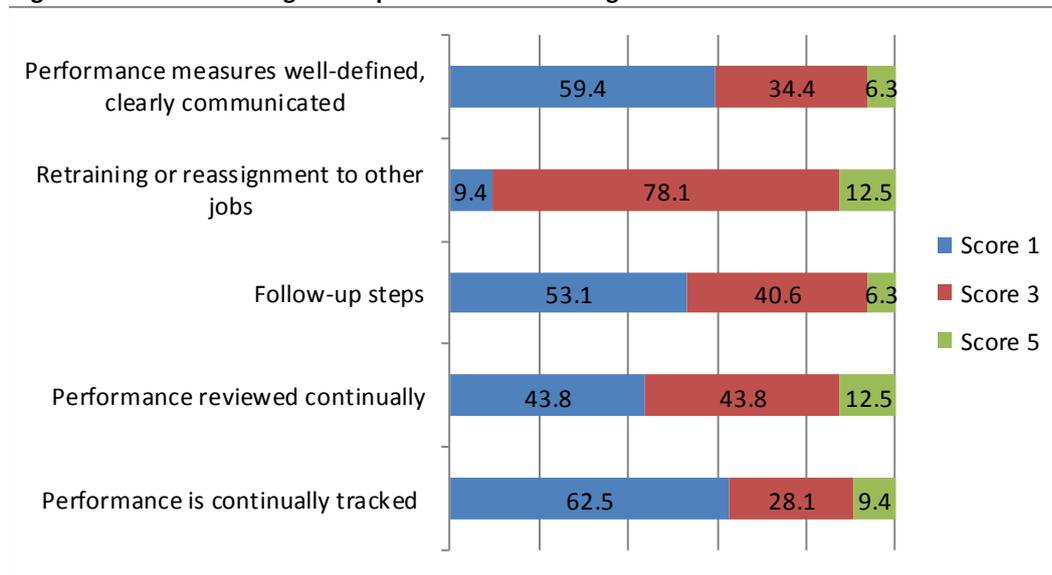
¹⁰¹Monitoring is seen as an important tool used by managers to track, review, and communicate the performance to the workforce.

feedback is an opportunity for constructive feedback and coaching purposes. The average score for this question is 2.13, while the maximum score is 5.

Another very important element which sheds light on the relationship between managers and employees is related to the potential consequences after the performance review. The average score is 2.81, indicating that failure to achieve agreed results is tolerated for a period before action is taken.

The final question related to monitoring practices was aimed at figuring out how managers formulate performance measures and whether measures are clearly communicated and understood by the workforce. The results indicate that performance measures are ill-defined, are quite complex and not clearly understood by those who are evaluated. The best managerial practice ensures that performance measures induce a constructive competition among the workforce.

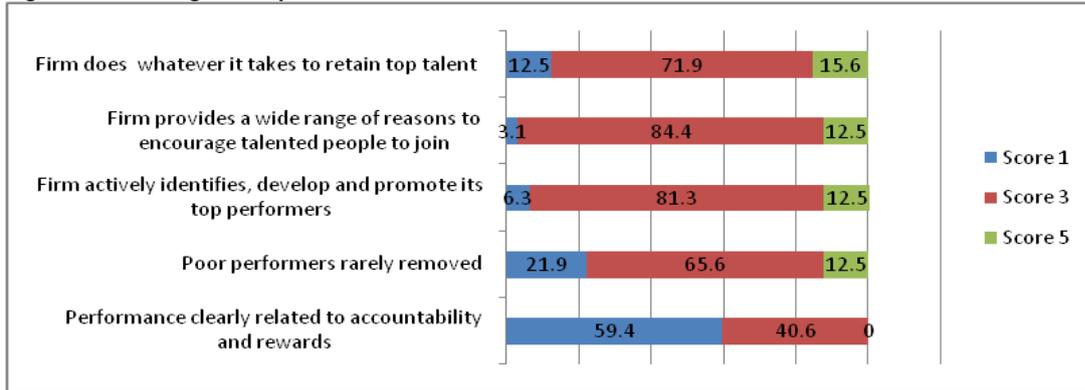
Figure 6.9 Labour - Management practices – monitoring area



Source of data: Survey 2013

Question related to incentives covered the criteria governing promotion, practices for addressing poor performance by employees, and the basis on which the achievement of production targets was rewarded. More specifically, issues with poor performers was addressed, namely whether poor performers get proper training to reach the expected level of performance or they are discharged immediately; also how far companies go to retain talent, etc. It is rather surprising that compared to other management practices; three out of five practices are scored with a mean greater than 3. The only practice marked with a mean below 2 is the one related to how firms reward high performers. In most of the cases, firms do not possess formal procedures in terms of how a good performer is rewarded.

Figure 6.10 Management practices – incentive area

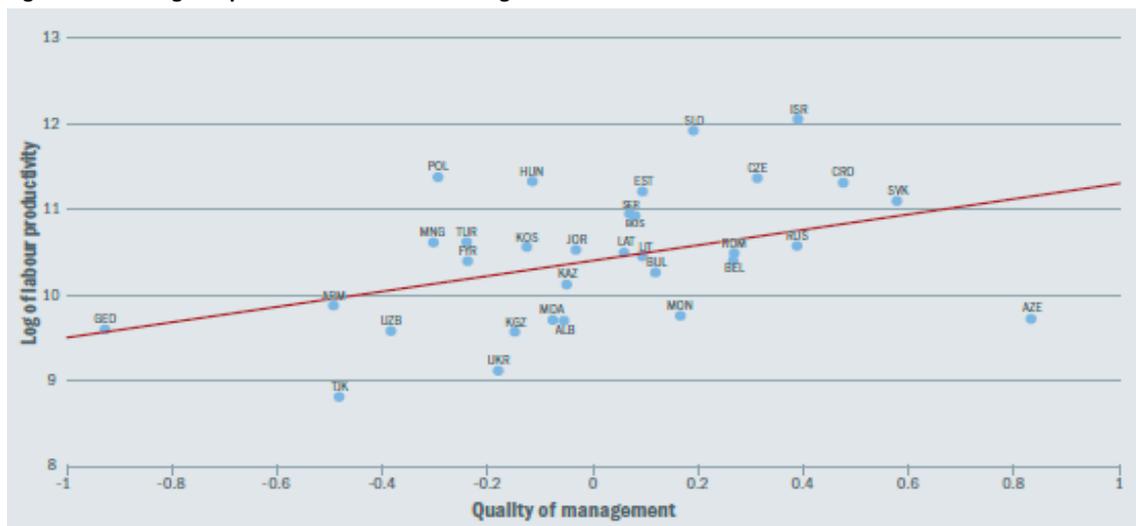


Source of data: Survey 2013

Though these managerial practices do not directly investigate managerial – workers relationship in relation to innovation activities, the quality of these practices may indirectly infer this relationship. However, as Bloom *et al.*, (2011) argue, it remains an open question whether high/low scores on the management practices grid are beneficial, neutral or detrimental to innovation (the generation of *new* goods and services). Furthermore they assert that good management practices may be complements to innovation as efficiently organizing a research team is likely to get more “bang” for every “R&D buck” spent.

In one of the transition reports issued by EBRD in 2014, managerial practices in Kosovo have been ranked relatively higher compared to many developing countries. As shown in the Figure 6.12 below, Kosovo is ranked better than most other developing countries such as Ukraine, Georgia, or Armenia, and even better than some middle income countries such as Macedonia, Albania, Bulgaria, or Romania. However, the findings provided by this report show that managerial practices in Kosovo lag far behind high-income countries such as Slovenia, Croatia, or Czech Republic.

Figure 6.11 Managerial practices in the transition region



Source: EBRD 2014

With respect to the findings provided above, it probably could be inferred that, in the light of managerial practices in other countries (see Bloom *et al.*, 2011), management practices applied in

the developing countries like Kosovo are considerably worse. Out of incentive practices, the scores for other practices obtained by the survey are significantly lower than in developed and other developing countries.

6.6. Investment commitment

As set out in the section of theoretical framework, the innovation process is not an act, but rather a process that cumulates over time (Lazonick, 2013). By being so, the process needs sustained commitment of financial resources to keep it evolving. This is an essential social condition that enables firms to sustain the cumulative innovation process until it turns into financial profit. In Lazonick's words, implementing innovative projects through internal revenues is a very critical form of financial commitment, but such inside finance must often be supplemented by external sources. As the evidence provided in the section on investment institutions at a national level shows, one of the major weaknesses of investment institutions is related to the absence of an equity market. Hence, the only source of external finance remains bank loans.

Since constraints to external finance have been discussed in more detail in the growth diagnostic chapter, this chapter provides only a short overview from the theory of the innovative firm perspective. Again, the evidence used in this section is taken from the BSCK dataset.

On the question of whether firms have invested in the last three years, 61 one per cent of them responded negatively. Findings show the opposite evidence for exporting firms, from which 65 percent reported to have invested in the last three years, while from non-exporting firms only 35.9 percent reported to have invested in the last three years. With regard to the source of the funds, 77 per cent of respondents responded that they have financed their projects from internal funds, while the rest of the funds were obtained mainly from banks. On the question of whether firms have obtained any loan from a financial institution, 31 per cent of firms responded positively, while 59.7 per cent of them have not applied at all, and 9.4 per cent of them have been refused. In terms of the loan duration, as the figure below shows, the most characteristic one is the loan from 1 to 3 year time duration.

Table 6.8. Statistical summary of investment commitment variables

	Invested in last three years		Loans from financial institutions		Terms of loans	
	Yes (%)	No (%)	Yes (%)	No (%)	< 3 years	> 3 years
Total firms	55.3	44.7	53.8	46.2	78	22
Exporting firms	65.4	34.6	59.3	40.7	66.7	33.3
Non-exporting firms	35.9	64.1	27	73	76.1	23.9

Source of data: BSCK 2012

Being asked about the conditions of loans in the financial markets, 70 percent of responses were that loans are very unfavourable. A closer look at the data reveals that in terms of the cost of loans, 62 percent of loans were obtained at interest rate from 9 to 14 per cent, 22 percent at interest rates from 15 to 17 percent, and 5 percent of loans were obtained at interest rate between 18 to 24 per cent. In short, only 1 percent of total loans were obtained at less than 9 percent in terms of interest rates.

The generally short time duration and the high interest rates indicate that the component of social condition related to finance is not favourable. 83 per cent of respondents mentioned lack of collateral as the main reason for not obtaining bank loans. It appears that due to the adverse perception of risk; banks demand high amounts of collateral in order to issue loans.

Figure 6.12 Time duration of bank loans

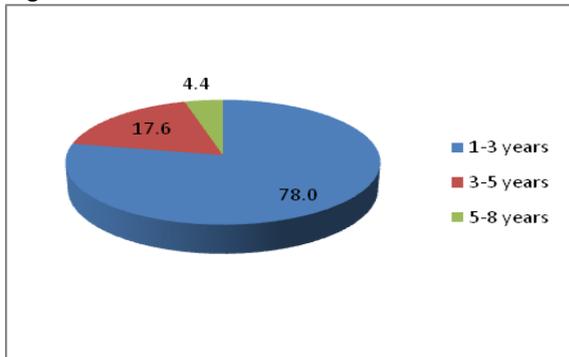
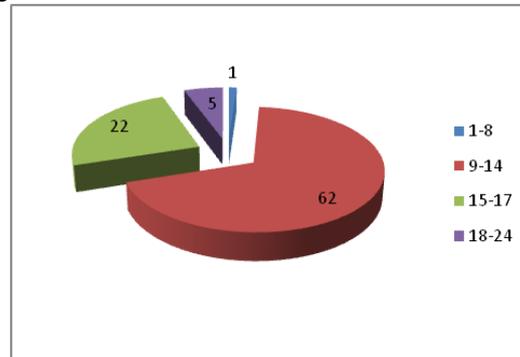


Figure 6.13 Structure of interest rates



Source of data: BSCK 2012

In the question of whether firms have been supported (subsidised) by EU funds, central government, or local governments, 1.4 per cent of them responded that they have been subsidised by the EU, while 99.7 per cent of them responded that they had not been subsidised by central or local government

6.6.1. The Mann-Whitney U test and Logistic Regression Results

The findings obtained from the Mann-Whitney U test indicate that from three variables used in the model, two of them are statistically significant in explaining what differentiates exporting firms from non-exporting firms. More particularly the evidence shows that exporting firms invest significantly higher than non-exporting firms, indicating that investments are crucial to the differentiation between firms. The differentiation is shown by the p value and size of effect ($p < 0.003$; $r = 0.15$). Exporting firms seem to have greater access on external funds. As it is provided in the part of statistical summary, around 60 percent of exporting firms reported to have raised loans from external recourses, as opposed to 27 percent of non-exporting firms. The access on external funds also seems to be significant in terms of differentiation between these two groups of firms. This is also shown by the p value (0.001) and the effect size 0.17. Finally, test results indicate term loan conditions are similar to both groups of firms, suggesting that there is no any statistical significance between firms in terms of longevity of loans.

Table 6.9. The Mann-Whitney U test results – Investment commitment variables

Significant variables	U	z	r	$p < 0.10$
Investments in last three years	3,857.000	3.012	0.15	0.003
Loans raised from banks	3,715.000	3.402	0.17	0.001
Terms of loans	364.000	0.689	0.07	0.498

Note: $r = z / \text{square root of } N$ where $N = \text{total number of cases}$.

Source of data: BSCK 2012

With respect to logistic regression results, the outcomes suggest that two variables that seem to have greater effect on the groups' differentiation include the investments and the access on external finance. The logistic regression model was statistically significant, $\chi^2(2) = 14.308, p < .001$. The model explained 10.0% (Nagelkerke r^2) of the difference between exporting and non-exporting firms and correctly classified 93.6 percent of cases. As shown in Table 6.10 below, the strongest predictor of reporting a difference between two groups of firms was the loans variable, recording an odds ratio of 2.9. This odds ratio indicated that firms that obtain loans are around 3 times more likely to be engaged in exporting activities than firms that do not take business loans, controlling for all other factors in the model. Similarly, the investment variable turned out to be a significant predictor, having an odds ratio of 2.7. Of course, this model raises the issue of endogeneity as exporters are more likely to receive more favourable loans given their supposedly better performance. However, in view of our data availability this issue cannot be addressed.

Table 6.10. Logistic regression on investment commitment

	B	S.E	Wald	df	Cox and Snell R sq. Nagelkerke R sq.	<i>p</i>	Odds ratio	90% C.I. for Odds	
								Lower	Upper
Investments	1.006	.451	4.972	1	0.4 0.10	.026	2.734	1.129	6.618
Loans	1.079	.432	6.232	1		.013	2.943	1.261	6.869
Constant	1.626	.305	28.430	1		.000	5.085		

Source of data: BSCK 2012

In conclusion, the results obtained from this section suggest that social conditions at a firm level have a significant impact on the business performance of firms. More specifically, the outcomes show that social conditions at firm-level, represented by strategic control, organisational integration, and investment commitment factors are likely to be associated with the emergence of innovative firms. Some of main findings include:

- With regard to strategic control factors, the results suggest that exporting firms are differentiated from non-exporting firms in the component of ownership concentration. Less than half of exporting firms are owned by one owner, as opposed to 90 percent of non-exporting firms. The separation of these two functions leads to professionalization of management and probably leads to more organisational learning. Findings indicate that owners and managers that manage exporting firms are better educated which may suggest that these firms have higher 'absorptive capacities' or capacities to introduce better innovation but not necessary number of innovations. Results show that 80 percent of managers in exporting firms are at least university degree holders versus to 37 percent to non-exporting firms. The educational attainment seems to be one of the strongest predictors in explaining the difference between exporting and non-exporting firms. This is also the case with management training which is likely to make a significant difference between firms (70 percent for exporting firms versus 27.8 percent for non-exporting firms). The findings indicate that the relationship between shareholders, and prior experience of owners do not seem to make any significant difference between the two groups of firms.
- Findings show that exporting firms seem to be different also with respect to the second social condition, namely the way that organisational integration is taking place. From ten variables applied in the test, half of them turned out to be statistically significant in explaining the innovation capability of exporting firms relative to non-exporting firms. More particularly, the findings obtained from the analysis indicate that possession of a business plan has a favourable impact on business performance. In addition, the results show that the

market as a source of learning; ability of firms to take risks in business activities; change of marketing strategy in accordance with market demands; and organising business activities in collaboration with foreign partners are all likely to have positive influences on the capability of firms to transform inputs into more innovative outputs.

- In terms of labour-management relationships, the evidence suggests that these relations are organised without any designed system in the background. As examples; business targets are set basically based on financial indicators; tracking of working activities is done on an ad-hoc basis; workers' performance is reviewed infrequently, etc. With regards to monitoring practices, the results indicate that performance measures are quite complex and ill-defined; not clearly understood by those who are evaluated. An interesting pattern was found in relation to incentives. The outcomes show that three out of five practices are scored with a greater mean than 3. The only practice marked with a mean below 2 is the one related to how firms reward high performers. In most cases, firms do not possess formal procedures in terms of how a good performer is rewarded.
- Findings in relation to the third social condition suggest that investment is one of the factors that differentiate exporting firms from non-exporting firms. In the last three years, exporting firms have committed higher levels of investments than non-exporting firms. Exporting firms also have a greater access on bank loans than the other group of firms. The conditions of loans offered by banks seem to have similar negative effects to both types of firms.
- In summary, strategic control and investment commitment seems to be more developed in the case of exporters. This is only partly the case with organisational integration which seems to be much more developed at strategic management level but much less in terms of management - labour relations. This is further conformed by investments in labour force which seems to be comparatively less developed.

6.7. Conclusions

The focus of this chapter was the investigation of factors that enable and constrain the emergence of innovative firms. The process of analysis was carried out by using the conceptual framework proffered by Lazonick (2013). As it is provided in the methodology section, exporting firms have been used as a proxy for innovative enterprises. It applied a structured set of statistical models to data comprising 500 firms operating in Kosovo, and uncovered very strong evidence suggesting that social conditions matter. The outcomes obtained explained that a business firm is a social structure that is embedded in a broader institutional environment represented through governance, employment, and investment institutions. The outcomes also suggest that social conditions developed at firm level, represented through strategic control, organisational integration, and financial commitments factors, have significant impact on developing human and physical capabilities that enable the firm to compete for chosen product markets.

The results indicate that Lazonick's (2013) theory contains elements that are relevant to explain social conditions that support the emergence of innovative firms. The evidence presented in this chapter suggests that the institutional environment in Kosovo, suffers from many deficiencies. Though such countries may have managed to establish legal structures compatible with developed countries, the major problem remains in the application of these legal structures. This is specifically the case with governance institutions related to firms established in Kosovo's context which to a great extent are

in line with European Union standards, but the chief difficulty remains in the implementation. Similarly, the employment institutions that enable the formation of a skilled labour force suffer from numerous constraints. The evidence indicates that there is a discrepancy between the labour market needs and the quality of human capital that derives from the current education system. On the other hand, firms operating in Kosovo's market fail to provide trainings to their workforce. The evidence shows that the share of firms that provide trainings for their force is significantly lower than their counterparts operating in the SEE and ECA region. In short, based on the obtained evidence, the Kosovo students at vocational schools and universities are not acquiring skills and competences that are aligned with labour market needs. Moreover, the quality of education acquired from universities and vocational schools does not seem to educate students with problem solving skills, i.e. applying knowledge gained in schools to solve problems in a workplace setting. Although the country seems to have established a stable financial system which is well regulated, the major problem remains with the cost of borrowing which seem to be significantly higher than in comparator countries.

The results obtained from this empirical research also confirm the relevance of the theory of the innovative firm that social conditions at the firm-level represented through strategic control, organisational integration, and financial commitment matter. They clearly indicate that the way a set of relations that gives decision-makers the power to allocate the firm's resources to confront the technological, market, and competitive uncertainties matter significantly. The results show that in Kosovo the percentage of firms endowed with strategic control conditions that enable the emergence of innovative firms is significantly low. Similarly, the findings show that the conditions in which firms organise and integrate their business operations have significant impacts upon the emergence of innovative capabilities. These conditions contribute very significantly to explaining the emergence of innovative firms. Finally, it looks like financial conditions represent one of the major social constraints for both types of firms, regardless whether they are endowed or not with innovation capabilities.

All of these results point to the conclusion that the theory of social conditions of innovative enterprise provides a good framework to understand the dynamic interaction between the organizational conditions of firms and the institutional environments in which they operate. In that respect, social conditions for innovative enterprise theory represents a hybrid framework which is able to capture external variables as well as internal variables. Yet, it is distinctively different from growth diagnostics and resource-based theory and management practices approach which are focused on static issues, i.e. how firms could operate successful with the given technology while the innovative enterprise theory asks itself what factors inhibit firms improving their technological capabilities. Further, the results of this study show that the social conditions are distinctive sets of factors which should be accounted for when analysing business factors relevant to the growth of firms, not only their current operations. So the empirical and theoretical foundations of the theory of the innovative enterprise should continue to be a fertile and exciting framework for future empirical research studies. However, important limitation which we have also faced in our research is the availability of firms and mezzo (industry) level specific variables.

CHAPTER 7

7. Main Findings and Conclusions

The aim of this thesis was to investigate the factors that enable and constrain the growth of firms in Kosovo. The study has used four theoretical frameworks and methodologies to assess four distinct but interrelated aspects of the firm growth. These four aspects include: (a) the role of the dynamics of firms in the growth of firms, (b) the role of resources (inputs), organisational capabilities and managerial practices in the growth of firms, (c) the role of business environment factors in the growth of firms, and (d) the role of social conditions in the emergence of innovative firms. The objectives of this study have been achieved through providing new empirical evidence on the factors that enable and constrain the growth of firms, and through the application of above provided theoretical frameworks into the explanation of growth of firms in Kosovo's economy. Aiming at exploring what is enabling and preventing firms in Kosovo to achieve higher, sustained and shared growth; this chapter provides main findings obtained from the application of four different strands of investigations.

The chapter is organised as follows. The first section summarizes the main findings from the thesis; the second section highlights the main contributions to the existing firm growth literature; while the final section presents limitations of the research and discusses opportunities for further research.

7.1. Main findings

The purpose of the first strand of investigation was to find out whether firm dynamics has any impact on the growth of firms in a low-economic context. This part of the study draws on empirical evidence which suggests that in developed economies firms operate under the conditions of "creative destruction". This is to say that incumbent firms are constantly pressurised by new firms which are assumed to enter into market with new technology, new working methods, and new managerial practices. Due to this pressure, incumbent firms are forced to innovate and in this way they turn themselves into the driver of growth. The evidence obtained in this study (Chapter 3) shows that the impact of "creative destruction" in Kosovo is considerably reduced. Findings indicate that the Kosovo's economy is a slow economy characterised by a low level of firm dynamics. While the rate of entry of small firms can be compared to other comparator countries, the entry rate of large firms in Kosovo is significantly lower. The entry of this type of firms is even lower relative to other developing countries and those with similar income level. This is a symptom which indicates that the overall business environment in Kosovo is not conducive and favourable for entry of larger firms. As it is suggested by the evidence presented in the chapter 5 where business environment factors are discussed, the business environment in Kosovo is characterised by various specific constraints.

Another interesting finding related to the chapter on firm dynamics is that the rate of exit firms in Kosovo is significantly lower than in other developing and developed countries included in the sample. Broadly, this finding is in line with survival rate findings, which show that the firm survival in Kosovo is significantly higher than in comparator countries. This is so not because firms experience

growth, but primarily due to the poor impact of market selection, which looks like, it is far less harsh than in developed countries. Though this does not come straight from the evidence, it may be inferred that firms in Kosovo are not entirely economic institutions, but they are social institutions as well. Influenced by pushed factors, for families in poor countries like Kosovo, the existence of firms represent the only means of survival and revenue generation. These firms operate based on different metrics of profitability and loss. Therefore, it is not surprising that this finding coincides with another finding of this chapter which indicates that productivity of firms in Kosovo is low. In conclusion, the empirical evidence generated in the chapter of firm dynamics shows that the role of the “creative destruction” in Kosovo is noticeably reduced. More particularly, the outcomes point out that the behaviours of firms that operate in such business environments generate less turbulence; the churning process is significantly lower than in developed economies, and consequently the effects of firm dynamics are much less growth enhancing than in developed economies.

The second strand of investigation was concentrated on factors that differentiate performance of firms. By combining two theoretical frameworks, in this part of the thesis was sought to find out which resources/inputs, organisational capabilities and managerial practices influence on the performance variability between two groups of firms. The findings obtained in chapter four indicate that firms differ more in terms of organisational capabilities and managerial practices applied than in terms of resources/inputs used. As a matter of fact, the results show that in general, there is no significant differentiation between firms in terms of inputs, i.e. technology they utilise or financial resources they use to purchase that technology are similar. In terms of inputs, the findings show that high growing firms differ from the other group of firms in terms of number of college graduate employees, provision of internal trainings, and the previous experience of founders. Findings suggest that factors related to the business environment are not likely to affect the difference in firm performance. This is to say that, firms that are less constrained by business environment factors do not necessarily perform better. Although the quality of managerial practices applied in Kosovo lag behind developed countries, the outcomes obtained suggest that managerial practices still play a crucial role in the performance variability and seem to be equivalent to production capabilities. As long as organisational capabilities are concerned, the findings reveal that their impact on performance variability is more truncated. This is primarily due to the fact that some organisational capabilities, such as marketing and teamwork capabilities are found to have far less effect on the performance variability relative to other capabilities such as entrepreneurship and innovation capabilities, dynamic capabilities, or networking capabilities.

The third strand of investigation is focused on investigation of business environment factors that externally influence the growth of firms. By critically appraising the growth diagnostic theory, this chapter provides more comprehensive evidence on the role of business environment constraints in the growth of firms in the Kosovo’s context. In addition, the aim of analysis in this chapter was not only identification of growth constraints, but moreover to find those constraints that matter most. Findings show that the low rate of firm growth from the perspective of business environment factors is related to the low return to economic activity. The most binding constraints are related to appropriability factors. Several symptoms point out that government in the country fails to provide necessary public goods. This is indicated by micro-risk factors such as unfair competitive practices, rule of law, and high levels of corruption. This study argues that improvement in appropriability factors would produce bigger change in the objective function. The second binding constrain is

related to the high cost of finance. This constraint is partly related to the macro and microeconomic risk factors. Specific symptoms have been discerned in relation to the high cost of finance. The evidence indicates that factors that encourage the high cost of finance are related to the low level of domestic savings, monopolistic behaviour of banks, and poor access on international finance. The third binding constraint is related to complementary factors, particularly to poor availability of human capital. Overall, based on the findings presented above it can be concluded that the quality of business environment factors currently dominating Kosovo's economy provide little incentive for the growth of firms. This is shown through the information obtained from both sources of evidence, namely international and micro-firm surveys. The perception of private investors in relation to the quality of business environment factors in Kosovo is considerably negative. According to them, this environment is characterised by high micro-risks (government failures), where the cost of capital is high (relative to comparator countries in the region), and where complementary factors in the form of human capital are comprehensively scarce.

Some aspects covered in the previous strand of investigation, where growth diagnostics theory was used to investigate external binding constraints to the growth of firms, have been dealt with in the fourth strand of investigation, too. Growth diagnostics approach assumes that should countries manage to remove or relax constraints that externally influence the growth of firms, their economic growth is inevitable. By considering this assumption as being very optimistic, this theory was extended by the social conditions of innovative enterprise. The central point of this theory is that growth is driven by firms that are endowed with innovation capabilities, i.e. firm that are able to innovate. Innovation here is defined as product and process new to the firm, not necessarily new to the market or internationally. The emergence of such firms requires the existence of certain social conditions which should exist at both: macro and micro-firm level. The findings presented in Chapter 6 suggest that Kosovo has managed to establish an institutional framework which to a great extent is in line with European Union requirements. Specifically its institutional framework related to firms, corporate governance elements, as well as the tax laws, can be compared with all the neighbouring countries and wider. However, the main problem remains on the implementation of this legal structure. This finding is confirmed by various sources (EBRD, 2013) and illustrated by various examples. Also the finding related to the creation of an institutional framework that enables the development of human capital resources shows it to be in line with the EU standards. But, findings indicate that the current education system does not address properly the demands of the labour market. Furthermore the evidence shows that the link between vocational schools and universities and market needs has not been established yet. As one of BEEPS's surveys suggests, around 80 percent of companies surveyed in Kosovo consider the level of workers' skills and education to be a major problem for doing business. In terms of investment institutions, the findings suggest that financial system in the country is quite stable, but the cost of credits provided seems to be significantly higher than in comparator countries. This finding coincides with the evidence found in the Chapter 5. As far as social conditions at firm-level are concerned, the results suggest that the number of firms endowed with innovative capabilities is significantly low – 5, 9 per cent. This percentage is the outcome of external conditions of innovative firms as well as of strategic control and organisational integration factors at firm level. In terms of social conditions related to strategic control, findings suggest that majority of firms endowed with innovative capabilities are owned by more than two owners, and usually ownership and management is separated. The results also indicate that innovative firms are run by people who are better educated and better trained as

opposed to the other group of firms. In summary, it suggests that the better the strategic control conditions are, the more likely that firms will innovate. With respect to the second social condition, namely the way in which organisational integration takes place, findings indicate that factors such as possession of a business plan, the ability to learn from market feedback, adopting a marketing strategy to market needs and demands, the ability and readiness to take business risks, collaboration with foreign business partners, are more likely to have a strong positive influence on the capability of firms to transform inputs into more innovative outputs. In connection to labour-management relationships, the evidence suggests that the way these relations are organised leave a lot to be desired. For instance, business targets predominantly are based on financial indicators, while modern management practices apply both: financial and non-finance indicators, tracking of job activities are performed on an ad-hoc basis, the workers' performance is reviewed infrequently, etc. With regards to monitoring practices, the results indicate that performance measures are ill-defined; they are quite complex and not clearly understood by those who are evaluated. In summary, organizational integration as a precondition for innovative activities is quite deficient due to important weaknesses in management practices. Findings in relation to the third social condition, namely conditions related to the investment commitments, for Kosovo's firms are considerably unfavourable. This is shown by the cost of credit which is high, and the conditions of loans in terms of time span.

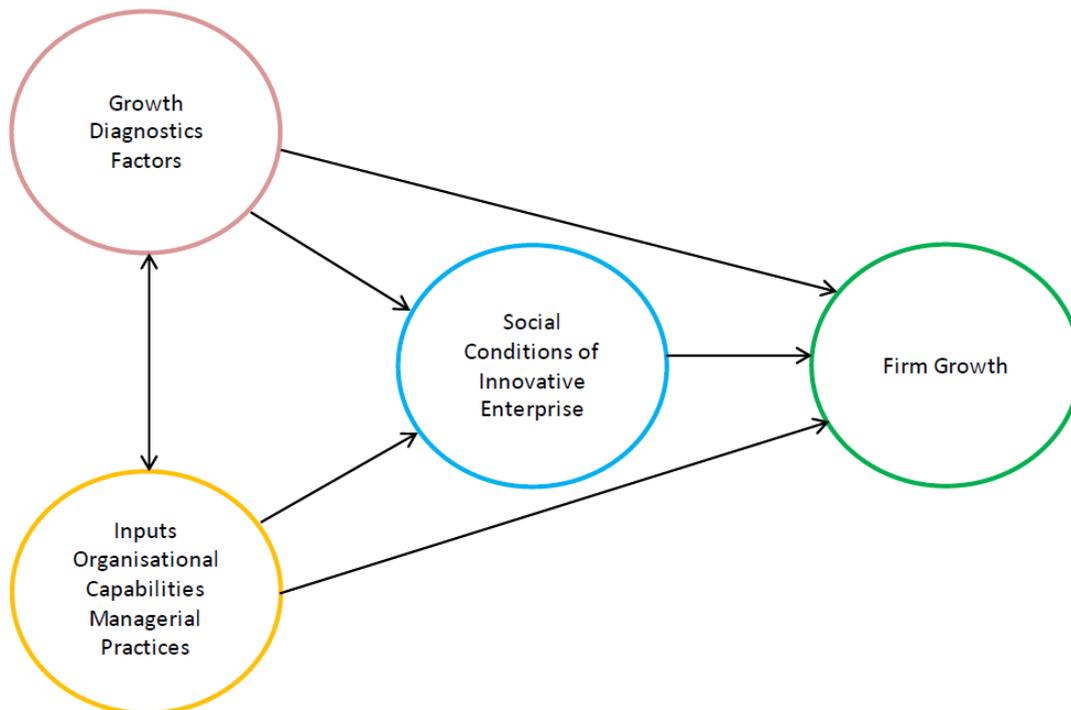
To summarize, searching to find out what enable and constrain the growth of firms in Kosovo, this research study aimed to integrate/reconcile different approaches and methodologies.

The first approach was firm dynamics, which in this study was used more as an outcome variable. Through the firm dynamics approach the aim was to investigate which firms have more propensities to enter, survive, and grow in the Kosovo's context. The results show that larger firms, limited liability firms, firms that operate in manufacturing and construction sectors and those that operate in the capital area have more chances to survive and grow.

In order to understand what are the differentiating factors among firms that have a greater propensity to survive and to grow, three other theoretical frameworks have been deployed. The resource-based theory and managerial practices approach was used to investigate internal growth factors, while external factors are investigated around the growth diagnostics theory. The third deployed theory was the social conditions of innovative enterprise (SCIE). As the Figure 7.1 below indicates, the SCIE theory falls in between RBT and GD theory. Some of the variables used in the social conditions methodology overlap with the growth diagnostics and with resource-based theory and managerial practices approach. But at the same time these variables are not identical factors. The growth diagnostics is concerned with firms as they are, but it is not concerned whether firms are innovative or not, or whether they have the potential to grow or not. The assumption is that if macro constraints (good infrastructure, human capital) and micro risks (rule of law, low level of corruption) are reduced, or the cost of finance is improved, problems with the growth of firms are solved. Similarly, the resource-based theory and managerial practices look at factors that make firms good, or at factors that distinguish firms from one another. But none of these two frameworks look at growth of firms in dynamic way, or more particularly, they are not concerned with factors that enhance the innovativeness of firms. Innovation in this study is used simply as a proxy for the growth. So the aim of the thesis was not only to investigate factors that enable or constrain the

growth of firms today, but moreover, what enable and constrain the growth of firms in a long term, or what makes them innovative. This is where the SCIE theory comes in. It comes in between organisational capabilities and managerial practices which look at internal factors and GD factors which look at external factors. Social conditions are those that operate in between the sets of variables taken into account by resource based theory and managerial practices and growth diagnostics frameworks. Variables used in the social conditions framework complement in a more dynamic set of factors.

Figure 7.1 The integration of three frameworks used in the study¹⁰²



Drawing on the outcomes derived from the analysis, it can be inferred that growth of firms operating in Kosovo, is the function of interaction of factors which operate within these three frameworks. One framework is related to resource-based theory and managerial practices which cover the dimension of internal factors; the second is the framework of growth diagnostic which covers the dimension of external factors; and the third framework is the social conditions of innovative enterprise which stands in between the first and the second dimension. Though there is a degree of overlap, the social condition factors are not identical with the two previous frameworks. This is so because they look at growth factors primarily from the dynamic perspective, namely what makes these firms innovative. While the first and the second dimension explain why firms are currently good, the aim of the third dimension is to explain what makes them innovative on a long run. One conclusion derived from the results of this thesis is that the growth of firms in economic environments such as Kosovo cannot be explained only by the first and the second dimension. This thesis argues that the explanatory factors that enable and constrain the growth of firms are more complex. This is so because the growth of firms is the function of factors which fall within these

¹⁰²I am grateful to Dr. W. Bartlett for suggesting this summary of my work.

three theoretical frameworks. In other words, this thesis argues that drivers of firm growth derive from the interaction of micro and macro factors. This is so because the growth of firms probably is not only just a macro issue, or just a micro issue. It is always an interaction between them.

Table 7.1. Statistically significant variables obtained from three frameworks

Growth diagnostics	Social factors at national level	Organisational Capabilities	Management practices
Unfair competition High level of corruption Rule of law	Implementation of adapted legal structures Development of human capital High cost of finance	Finding and keeping skilled labour Introduction of new products Introduction of new manufacturing methods	Performance tracking Performance dialog Consequence management Performance clarity and comparability
High cost of finance Low level of human capital	Social factors at firm level: Ownership structure Relationship between owners Power distribution Formal education Management trainings Business plan Market as a source of learning	Learning through customers Risk taking ability Observing skills Changing based on market demand and customers' feedback Implementation of internal trainings Sharing experience among labours Selecting suppliers Recruiting skilled labour	Targets time horizon Targets stretching Managing human capital Removing poor performance Promoting high performers Attracting human capital
	Risk taking Change of marketing strategy	Assistance in obtaining loans and tax advices Customer satisfaction and retention	
	Collaboration with foreign partners	Finding and keeping skilled labour	

In short, drawing on the findings obtained from this study it can be concluded that firms operating in Kosovo encounter specific growth constraints which cannot be reduced to conventional business environment factors. The creative destruction in Kosovo's economy most likely has considerably a reduced impact, the business environment in which firms operate is characterised by serious deficiencies, the organisational capabilities and managerial practices required for the emergence of innovative firms are truncated. This raises the issue of how change and growth can take place. A conventional view would list the most important external constraints. However, the findings derived from this study point to the equal if not higher importance of firm level factors some of which are affected by external factors but some of which are entirely of an internal character. The key is that growth and catching up requires the emergence of innovative firms that are able to overcome external constraints by internalizing or externalizing them. As they succeed they can gradually start changing the business environment. The underlying assumption is that this is a co-evolutionary process between firm level dynamics and the business environment which are mutually affecting each other.

7.2. Contributions to knowledge

The thesis extends the existing literature on factors that enable and constrain the growth of firms through the employment of four interrelated perspectives in the context of Kosovo. The interrelated perspectives include: the firm dynamics; the resource-based theory and managerial practices approach; the growth diagnostics theory; and the theory of the social conditions of innovative enterprise. It provides both methodological and conceptual reconciliation of different aspects of firm growth constraints by the critical exposition of these four perspectives by subjecting them to empirical work, utilisation of new data, and by applying a variety of methods and methodologies.

First, the thesis contributes to the existing research on firm dynamics by providing new evidence on the impact of “creative destruction” on the growth of firms in Kosovo. It is clear that firm demography data have significantly improved our empirical understanding of firm dynamics though our theoretical explanations are still lagging behind. Indeed, aiming at finding evidence that explains the impact of firm dynamics on firm productivity growth, the vast majority of research studies have been focused on developed economies. There is less evidence which could illuminate our knowledge about the relationship between firm dynamics and the growth of firms in developing countries. Based on the findings presented in the previous section, this research has brought new empirical evidence on the impact of the firm dynamics aspect on the growth of firms. By doing so, this research contributes to bridge the gap marked in the literature of firm dynamics.

Second, many researchers have used the resource-based theory and managerial practices approach as organising frameworks to study the impact of internal firm resources on the growth of firms. However, the vast majority of the studies have been focused on developed and developing countries. There is very little empirical evidence on the specifics of these theories in developing economic settings. By extending the focus of investigation of these frameworks in the context of developing countries, this study brings new empirical evidence by arguing that technology (equipment) is not the only recipe for good performance. In addition to technology, the growth of firms depends on organisational capabilities and managerial capabilities. A specific novelty provided by this study is the combination of different theoretical perspectives in the investigation of external and internal resources that lead to performance variability. The previous literature generally focused on one dimension of internal growth constraints – usually the resource-based theory, or the management practices approach. In this part of the thesis is argued that the application of resource-based theory alone in the investigation of internal factors that lead to superior performance does not address the whole aspect of internal factors. A resource-based perspective can help us identify differences among firms in terms of outcomes but not processes that generate these outcomes. Management practices are useful in the way that they can shed light on processes which may lead to differences in outcomes or to differences in organisational capabilities. Overall, the evidence provided in this section argues that analysis of how a firm achieves a competitive advantage requires a more dimensional approach.

Third, the growth diagnostics theory has been applied widely by many researchers to many countries, including Kosovo. The vast majority of the studies have been focused on the role of this theory in the identification of constraints to the economic development of countries in general. None of the studies have specifically used this theory to address the impact of business environment factors on the growth of firms. Hence, this study contributes to the exiting literature by applying it specifically in investigation of firm growth constraints. Another feature related to the previous studies is that most of them have used only the top-down approach in the investigation of binding constraints to the economic growth of countries. This study uses both, the top-down approach, as well as the bottom-up approach (a firm-level data) to investigate business environment constraints to the growth of firms. Moreover, this thesis provides a critical review of growth diagnostics theory. It argues that it is quite an optimistic to assume that there will be unlimited supply of entrepreneurship provided that external conditions are right. Business entities are complex entities which do not necessarily grow automatically once external constraints are removed. There are

varieties of intra-firm factors which should be taken into account when dealing with factors that enable and constrain the growth of firms.

Fourth, drawing on the critical review of growth diagnostics approach, the new hypothesis raised by this study is that this approach needs to be extended. The new framework should take into account not only factors external to the firm growth, but also factors internal to the growth of firms. However, these factors are not the only ones that enable or constrain firms to operate, but also factors which inhibit or enable firms to innovate. Thus, this thesis argues that the perspective of social conditions of innovative enterprise provides a complementary framework that enables understanding of the dynamic interaction between the organizational conditions of business firm and the institutional environments in which they operate. This approach was originally advocated by William Lazonick, but to the best knowledge, apart from the empirical study conducted by Lazonick *et al.*, (2013) on Apple's changing business model, there are no other studies conducted to support empirically the propositions put forward by this theory. The empirical findings presented in Chapter 6 reconcile both theoretical perspectives since the evidence can be interpreted in favour of both of them: growth diagnostics and the theory of innovative enterprise. This overlap is due to the focus on the business environment from different angles. GD looks at the business environment from the perspective of firms as producers of existing products while SCIE looks at the business environment from the perspective of the firm as a potential innovator. Hence, perhaps to gain a better perspective on factors that externally and internally constrain the growth of firms, it is needed to amalgamate propositions from both theories into a single theoretical framework, which probably remains a theoretical and empirical possibility for the future. This perspective would need to overcome the current duality between external and internal views on factors of growth of firms.

7.3. Limitations and future research

This research study should be viewed in the light of a number of limitations. Some of the limitations are related to data, while some other to methodological aspects.

First, as mentioned in Chapter 3 one of the major limitations of this study is the inability to explore thoroughly the factors that drive the productivity growth in the Kosovo's economy. Specifically the limitation has to do with factors that enable exploration of who are the drivers of firm growth. In order to conduct such analysis, a decomposition of productivity growth is needed, and this is possible only when firm-level data are available. A micro firm dataset would enable analysis of the interaction between newly born firms, the exit of unproductive firms, and their impact on the growth of continuing firms. Analysing productivity at firm level and production factors as building blocks, one may deconstruct productivity for each industry into the contributions of continuing firms, new entrants, and exiting firms (Unleashing Prosperity - World Bank, 2008). Each of the building blocks explains specific sources of productivity growth. For instance, analysis within continuing firms accounts for the productivity growth that takes place within incumbent firms, such as changes in the efficiency and intensity with which inputs are used in production. Analysis of new entrants explains the aggregate effect of firm churning (or firm turnover) in total productivity growth. Analysis on reallocation of resources explains gains that arise from high-productivity firms that are gaining market share or from low-productivity firms that are losing market share

(Unleashing Prosperity - World Bank, 2008). Due to the data shortage, all these analyses remain issues for further research.

Second, the results presented in Chapter 4 should be viewed in light of some limitations, as well. The major limitation is related to the small sample size. Therefore, future research could expand the size of the sample, and out of manufacturing firms, the future research could also be extended to other economic sectors. In terms of methodology, in order to explore profiles of factors of organisational capabilities and management practices (configurations), and try an alternative way to establish which profiles are associated with high-growth firms versus other firms, future research could apply qualitative comparative analysis as well (Ragin, 1987; 2000).

Third, as mentioned previously, the study related to the investigation of social conditions as prerequisites for the emergence of innovative firms is among the first ones applying the theory of innovative enterprise. The questionnaire utilised to gather data related to social conditions at a micro-firm level were not specifically designed for this purpose. A greater depth of information may have been obtained if the survey could have included interviewing managers of the firms. This would enable managers to better articulate their tacit perceptions and understanding related to the social conditions under which business operations are conducted. For instance, through the process of interviewing, it would be possible to get better information about the relationships between principals (owners) and agents (managers), about concentration of ownership (majority and minority owners). Further, interviewing would enable to get better information about industrial relations or interactions between managers and workers which are partly institutionally specific to each country but are also partly firm specific i.e. firms in similar institutional environment may have quite different intra-firm labour – management relations. Another possible improvement of this study could be by using a case study method. This method could have added important qualitative data and would also enable to gain a greater insight into the way how firms organise industrial relations or interactions between managers and labours.

Given these limitations, it is crucial to explore the enablers and constraints to the growth of firms in developing economies by designing and conducting a specific survey which would integrate the variables from all three frameworks used in the study. That would enable to create a model which could be more consistent and more comprehensive, and what is more importantly, would enable to minimise inconsistencies and other limitations encountered in this research study. Hence, construction of a more consistent and comprehensive dataset, which would be a reflection of all three approaches used in this study remains as one of the research objectives for the future.

APPENDICES

Appendix A: The construction of the datasets on firm dynamics

Datasets used in the chapter where firm dynamics in Kosovo was analysed have been obtained from two different sources. The first set of data was provided by Kosovo Business Registration Agency (KBRA). This agency is part of the Ministry of Trade and Industry of Kosovo which administers the business registration system since September 13, 2001. Based on provisions of Regulation 2001/6 and Administrative Order 2002/22 the Kosovo Registry of Business Organizations and Trade Names was established. More specifically, the KBRA registers all new businesses, modifications of business data, business shut down, issuance of registration certificate with fiscal number, certificate of value added tax, import-export certificate, provides information and free forms. The following types of businesses are registered at KBRA: Individual businesses, general partnerships, Partnerships, Limited Liability Companies, Joint stock companies, foreign companies, socially owned enterprises and Agricultural cooperatives.

There were two sets of data provided by this agency: the data on the new firm entries which covered the period 2003 – 2013, and the set of the data on the exit of firms covered the period 2008 to 2013.

The second set of data was obtained from Tax Administration of Kosovo (TA), and covered the period 2010 – 2013. The data obtained from this source covered only aggregate information about the number of firms categorised in size (micro, small, medium, and large firms), number of employed people, and annual sales turnover.

Both sources work with data from the regional registries of firms. As it was mentioned before, all firms in Kosovo are required by law to register when they enter the market, and to deregister from the registry when they decide to suspend their business activities. That means that these datasets contain information only about the formal economy. Firms that were created or closed as a result of, for instance, restructuring, merger, or break-up are not included in the datasets.

According to KBRA, the process of enterprise registration in Kosovo evolved through two phases. The first phase begins from the post war period, that is, from 2000 to 2003 in which firm registration was considered as provisional. The second phase begins from 2003 and onward. It is worth emphasizing that in 2008 the registration agency reported 90,929 registered firms. In one of its publication (KBRA, 2011) the agency reports that until 2003 there was a confusion over what was considered provisional and what was permanent firm registration. Finally, after coordination between several bodies such as UNMIK structures, Tax Administration, Customs, KBRA, and the Statistical Institution, from 2003 all registrations were considered as permanent.

It is worth mentioning that after using the filters, the sample was restricted to firms with a complete data set in terms of sector, legal form, region, and start-up size. The result is a representative sample of 40,069 firms born between 2010 and 2013 across all sectors of the economy.

Appendix B: Classification of comparator countries by GNI per capita

The classification of countries based on the income level was performed based on the World Bank guidelines. As of 1 July 2013, the World Bank countries' income classifications by GNI per capita are as follows:

- Low income: \$1,035 or less
- Lower middle income: \$1,036 to \$4,085
- Upper middle income: \$4,086 to \$12,615
- High income: \$12,616 or more

The data on income level follows the Bartelsman et al. (2009) study on the period when the countries' data on firm dynamics was extracted.

- Thus, the data on high income countries cover the period from 1995 – 2003 and includes the following countries: Canada, Denmark, Germany, Finland, France, Italy, the Netherlands, Portugal, United Kingdom, and the US
- Data on Upper middle countries cover the period from 1995 – 2003 and includes the following countries: Estonia, Hungary, Slovenia, Argentina, Chile, Mexico
- Data on Lower middle countries cover the period from 1995 – 2003 and includes the following countries: Brazil, Colombia, Latvia, Romania, while data on Kosovo cover the period between 2010 – 2014.

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	Average
High income										
1 Unites States	36,467	37,286	38,175	39,682	41,929	36,467	37,286	38,175	39,682	38,350
2 Danmark	29,980	29,946	32,344	39,443	45,282	29,980	29,946	32,344	39,443	34,301
3 Netherlands	24,180	24,969	27,111	33,177	37,458	24,180	24,969	27,111	33,177	28,481
4 Unated Kingdom	25,362	25,121	27,301	31,437	37,021	25,362	25,121	27,301	31,437	28,385
5 Finland	23,530	24,025	25,994	31,509	36,163	23,530	24,025	25,994	31,509	27,364
6 Germany	22,946	22,840	24,326	29,367	33,040	22,946	22,840	24,326	29,367	25,778
7 Canada	24,032	23,574	23,995	28,026	31,830	24,032	23,574	23,995	28,026	25,676
8 France	26,403	26,322	23,706	24,406	24,075	21,775	21,812	23,494	28,794	24,532
9 Italy	19,388	19,723	21,472	26,425	30,086	19,388	19,723	21,472	26,425	22,678
10 Portugal	11,399	11,612	12,696	15,483	17,684	11,399	11,612	12,696	15,483	13,340
Upper middle income										
11 Slovenia	10,524	10,635	10,282	10,974	11,250	10,045	10,290	11,600	14,607	11,134
12 Argentina	8,973	9,349	9,940	10,029	9,406	9,329	8,732	3,285	4,135	8,131
13 Hungary	4,411	4,454	4,522	4,671	4,714	4,543	5,175	6,535	8,247	5,252
14 Chile	4,941	5,168	5,568	5,266	4,782	5,133	4,625	4,487	4,866	4,982
15 Mexico	3,604	4,088	4,856	4,986	5,66	6,582	6,880	6,948	6,601	4,949
16 Estonia	3,031	3,342	3,609	4,039	4,132	4,063	4,495	5,310	7,182	4,356
Lower middle income										
17 Brasil	4,750	5,108	5,219	4,979	3,412	3,694	3,128	2,811	3,040	4,016
18 Latvia	2,107	2,273	2,521	2,746	3,049	3,309	3,557	4,032	4,889	3,165
19 Columbia	2,529	2,609	2,814	2,552	2,197	2,504	2,421	2,376	2,261	2,474
20 Rumania	1,564	1,562	1,565	1,871	1,584	1,662	1,834	2,116	2,756	1,835
21 Kosovo						3,233	3,702	3,567	3,816	3,580

Source: World Bank

Appendix C: Background information on organisational capabilities and management practices survey

The dataset used to investigate what differentiates high growth firms from other firms was generated by an original survey carried out in December 2013. The questionnaire was based on two models: AEGIS survey and the survey procedure of Bloom and Van Reenen (2007).¹⁰³

The AEGIS questionnaire covered the following aspects: general information about the firm and about the founder or the founding team, questions on market environment, competitive and institutional environment, success factors, obstacles, questions on the strategy of the firm strategy, identification and utilization of technical and market opportunities, sources of knowledge, networking, dynamic, networking, marketing, and team-work capabilities. The final aspect covered in this part of the questionnaire was related to financial data. This part was the most sensitive since the aim was to avoid asking specific questions related to firm financial data, which are both sensitive and extend the length of the questionnaire. The part of the questionnaire which covered the managerial practices included questions related to operations, monitoring, targeting, and incentives.

Choosing the most suitable method for the implementation of this survey was the most critical aspect. After selecting firms to be interviewed, the following step was contacting them and getting their consent. Three different alternatives were explored: an e-mail invitation, a postal invitation, and contacting through telephone. In most of the cases respondents asked to send the questionnaire in advance. This enabled them to get better overview on the content and the structure of questions.

Sample Population

The selection of the sectors covered in this survey follows a similar rationale to those that have been developed in the past by other surveys (e.g. AEGIS survey). It covers manufacturing sectors, firms that employ not less than 20 and not more than 250 employees. The classification of sectors is based on NACE C10 to C30. Table 4.2 sets out the structure of firms interviewed.

¹⁰³ AEGIS stands for advancing knowledge-intensive entrepreneurship and innovation for growth and social well-being in Europe. The AEGIS survey is the main instrument of the AEGIS project, as it supports the empirical investigation of knowledge-intensive entrepreneurship (KIE) in Europe in different sectoral, country and socioeconomic contexts. The AEGIS project studies knowledge-intensive entrepreneurship (KIE), its defining characteristics, boundaries, scope and incentives in high-technology as well as in low-technology sectors and in services. It focuses on KIE as a necessary mechanism and an agent of change mediating between the creation of knowledge and its transformation into economic activity. KIE is perceived herein as a core interface between two interdependent systems: the knowledge generation and diffusion system, on the one hand, and the productive system, on the other. More information about the AEGIS is provided on the following website: http://cordis.europa.eu/result/rcn/57920_en.html

Table 4.2. Structure of firms interviewed

Subsector	Frequency	Per cent
Beverage	6	18.2
Metal	4	12.1
Plastic	2	6.1
Agribusiness	2	6.1
Wood	6	18.2
Styropor*	2	6.1
Food	8	24.2
Shoes	2	6.1
Total	32	100

* Polystyrene (EPS - better known under the brand name Styropor) that have made it the most widely used foam insulating material in the construction industry.

Source: Survey 2013

Survey organization

The survey was launched on 2nd September 2013 and completed on 28th December 2013. The first month of the survey was treated as a preparatory period, where the questionnaire was tested through several trial interviews.¹⁰⁴ The main objective of this pilot phase was to test the content of the questionnaire in a live environment. Therefore the aim of this phase was to check if the questionnaire was understandable for the respondents; to test the length of the questionnaire; and to anticipate any unforeseen issues at an early stage of the fieldwork process. Overall, the preparatory period enabled the fine-tuning of some elements of the questionnaire.

Appendix D: The Mann-Whitney U Test

The Mann-Whitney U test begins with the null hypothesis (H_0) that two groups come from the same population. More specifically, it requires that the two independent groups are homogeneous and have the same distribution. The two variables corresponding to the two groups, represented by two continuous cumulative distributions, are then called stochastically equal (Mann and Whitney, 1947).

When the two-tailed test is applied, as it is the case with this study, then the alternative hypothesis (H_1) against which the null hypothesis is tested stipulates that the distribution of the first group data differs from the second group data distribution (Siegel and Castellan, 1988). The null hypothesis is rejected when values of the test statistic fall into either tail of sampling distribution.

In order to test the hypothesis, the sample must meet at least three conditions. First, the two investigated groups must be randomly drawn from the target population, which implies the absence of measurement and sampling errors (Robert *et al.*, 1988).¹⁰⁵ Second, each observation must

¹⁰⁴ Based on those interviews, the estimated length of the questionnaire was approximately two hours - 120 minutes.

¹⁰⁵ Note that an error of these last types can be involved but must remain small.

correspond to a different participant, meaning that in statistical terms, there is independence within groups and mutual independence between groups (Mann and Whitney, 1947). Thirds, the data measurement scale is of ordinal or continuous type, i.e. the observations values are of ordinal, relative or absolute scale type.

The Mann-Whitney U statistics can be defined by the following U equations, for each group:

$$U_x = n_x n_y + ((n_x(n_x + 1)) / 2) - R_x(1)$$

$$U_y = n_x n_y + ((n_y(n_y + 1)) / 2) - R_y(2)$$

Where n_x is the number of observations in the first group, n_y is the number of observations in the second group, R_x is the sum of the ranks assigned to the first group and R_y is the sum of the ranks assigned to the second group. In other words, both U equations can be understood as the number of times observations in one sample follow observations in the other sample when all the scores from one group are placed in ascending order.

Following the calculation of the U test and the determination of an appropriate statistical threshold (α), the null hypothesis can be rejected or not.¹⁰⁶ There a is rejection of H_0 if, by consulting the Mann-Whitney test, the p corresponding to the $\min(U_x, U_y)$ (the smallest of U both calculated) was smaller than the p or the predetermined α threshold, $p < 5\%$. In technical terms,

The H_0 was rejected when p of $\min(U_x, U_y) < \alpha$ threshold, which in this case was less than 5%.

Similar to any other statistical tests, the Mann-Whitney U has its own advantages, as well as limitations. In terms of advantages, like any non-parametric test, the Mann-Whitney U test does not depend on distribution assumptions, namely there is no need to postulate the data distribution of the target population (Kasuya, 2001). Further, this test can be used when the conditions of normality neither are met nor realisable by transformations. According to Landers (1981), this statistical test is one of the most powerful non-parametric tests, where the statistical power corresponds to the probability of rejecting a false null hypothesis. In other words, this test provides statistically significant results when the alternative hypothesis applies to the measured reality (Landers, 1981). According to Siegel and Castellan (1988) comparing to the t-test, the Mann-Whitney U test is less at risk to give a wrongfully significant result when there is presence of one or two extreme values in the sample under investigation. As the matter of fact, when a small manpower is associated with a small variance this test is more powerful in the detection of a difference on the extent of the possible differences between populations' averages than the t-test (Zimmerman, 1987).

Nevertheless, the Mann and Whitney U test (1947) has its limitations. With the Monte Carlo methods, it was shown that the t-test is most of the time more powerful than the U-test.¹⁰⁷

¹⁰⁶ Before the test was performed, a threshold value was chosen, called the significance level of the test, $< 5\%$ denoted as α .

¹⁰⁷ Monte Carlo Methods calculate a numerical value by using random or probabilistic processes. These methods are a broad class of computational algorithms that rely on repeated random sampling to obtain numerical results. They are mainly used in three distinct problem classes: optimization, numerical integration, and generating draws from a probability distribution (Kroese et al., 2014).

According to Zimmerman (1985), this fact remains whatever the amplitude of the differences between the averages of the populations under investigation and even if the distributions of these populations do not meet the criteria of normality. On the other hand, according to Gibbons and Chakraborti (1991) under statistically controlled conditions, very little statistical power is lost if the Mann-Whitney U test is used instead of the t-test.

Finally, Robert and Casella (2004) argue that the Monte Carlo methods showed that the Mann-Whitney U test can give wrongfully significant results, that is to say the erroneous acceptance of the alternative hypothesis. According to them the risk to obtain wrong results is whenever samples are drawn from two populations with a same average but with different variances. In such situations, it is largely more reliable to use the t-test which gives a possibility for the samples to come from distributions with different variances (Robert and Casella, 2004).

To conclude, the reason why the Mann-Whitney U test was employed rests on the fact that the dataset used in the analysis fulfils all required assumptions stated above, and it is a good alternative to parametric tests like the t-test, specifically when the assumptions of the last one cannot be met.

Appendix E: Details of the survey questions on organisational capabilities and managerial practices

SECTION I

(Information about the Founders and the Employees (including education, experience, and trainings))

Q1. What is the foundation date of your firm:

Q2. How many people founded your firm?

Q3. Who founded your firm? Please answer as many as are relevant for your firm.

Founder 1 (F1) Mr/Mrs/Ms

Founder 2 (F2) Mr/Mrs/Ms

Founder 3 (F3) Mr/Mrs/Ms

Founder 4 (F4) Mr/Mrs/Ms

Q4. What is the total number of:

... Full time employees in your company

... Part time employees in your company

Q5. What is/are the highest academic qualification (formal education) of the founder(s)? Please answer as many as are relevant for your firm.

F1	F2	F3	F4				
Elementary education			

Secondary education	...	...	...	...
Higher education BA		...	...	...	...
Higher education BS		...	...	...	...
Masters		...	...	...	...
PhD			...	...	... ..

Q6. What was/were the last occupation of the founder(s) before the establishment of this company? Please answer as many as are relevant for your firm.

	F1	F2	F3	F4		
Owner of a firm still in existence		
Owner of a firm that has ceased operations		
Employee of a firm in the same industry		
Employee of a firm in a different industry		
Self-employed				
University or research institute employee		
Government employee			
Unemployed				
None of the above. This is his/her first job.		
Other

Q7. Approximately how many years of professional experience did the founder(s) have in the same sector before the establishment of this company? Please answer as many as are relevant for your firm.

	F1	F2	F3	F4
Years

Q8. What are the main areas of expertise of the founder(s) that are relevant for the operation of this company? (Please tick all appropriate options.)

	F1	F2	F3	F4		
Technical and engineering knowledge		
General management			
Product design			
Marketing				

Finance

Other

Q9. Please fill in the table below about the employees in your firm (full time equivalents).

	Total number of employees	Number of employees with university diplomas	Number of employees with Master's degrees (MSc or MA)	Number of employees with PhD degrees
At the start of your firm				
In 2007				
Currently				

Q10. Over the past 12 months, which of the following has the firm used to upgrade the skills of its employees?

Yes No

- (a) in-firm provision of training
- (b) industry-organised training programmes _____
- (c) private training agencies _____
- (d) universities _____
- (e) technical training colleges _____
- (f) EU funded training schemes
- (g) None of them

B. Market environment

11. What was the typical structure of your sales in year 2013?

	%
Local (i.e. a specific region within the country)	
National	
International	

12. Please rank the customers of your company from the most important to the least important (in terms of volume of your sales).

... Large firms

... Small and medium sized firms

... Final consumers

... Public sector

... Other (please specify).....

13. Please estimate the importance of the following factors in determining the nature of competition in your industry/market.

1=unimportant to 5=very important

	1	2	3	4	5
Price					
Quality					
Customer service and interpersonal relations					
Marketing of new or significantly improved products and services					
Other (please specify)					

14. What is the primary competitive advantage of your company?

1=no impact to 5=huge impact

	1	2	3	4	5
Product/service quality					

Product customisation					
Cost competitiveness					

15. Please indicate the contribution of the following factors in creating and sustaining the competitive advantage of your company.

1=no impact to 5=huge impact

	1	2	3	4	5
Innovation					
Alliances/partnerships					
Marketing and promotion					
Other (please specify)					

16. Please evaluate the extent to which the following factors create obstacles in the entrepreneurial activity of your company:

1=not at all/ 5=to a great extent

	1	2	3	4	5
Large sunk investment (Capital stock in which we have invested has limited flexibility – i.e. we cannot serve a sufficiently diversified customer base using this equipment)					
Funding constraints					
Demand or market constraints					
Marketing problems (i.e. lack of marketing and management know-how)					
Lack of technological know-how					
Difficulty in finding partners for technological collaboration (i.e. joint product production, technical assistance, etc.)					
Difficulty in finding employees with technical skills					
Difficulty in keeping employees with technical skills					
Competition and barriers of entry created by large companies (i.e. MNEs)					

Other (please specify)						
------------------------------	--	--	--	--	--	--

17. Please indicate how significant the following barriers have been in setting up and operating your company.

1=no barrier to 5=very significant barrier

	1	2	3	4	5
High tax rates					
Time consuming regulatory requirements for issuing permits and licenses					
Insufficient competition law to curb monopolistic practices					
Poorly enforced copyright and patent protection					
High level of corruption					
Government officials favour well connected individuals					
Bankruptcy legislation makes the cost of failure too great					
Unsupportive labour market legislation					
Other (please specify)					

SECTION II

(Information about tangible assets: physical & financial)

Q18. Over the past three years, has the firm invested in Yes No

(a) new plant and equipment

(b) information technology

(c) Other technology

19. Over the past three years, which of the following sources has the firm used to fund investment:

Internal funds	
----------------	--

Funding from family member	
Funding from previous employer (corporate venturing, university incubator technology transfer)	
Venture capital	
Funding from a bank	
Public funding from national government or local authorities (programs supporting entrepreneurship, etc.) - loan	
Public funding from national government or local authorities (programs supporting entrepreneurship, etc.) - grant	
European Union funds (programs supporting SMEs, etc.)	
Other sources (please specify)	
TOTAL	100%

SECTION II

(Organisational Capabilities)

Entrepreneurship and Innovation

Q20. Did this company introduce new or significantly improved goods or services during the past three years?

Yes

No

Q21. The new or significantly improved goods or services were

New to the firm

New to the national market

New to the world

Q22. During the last three years the company has introduced new or significantly improved:

Methods of manufacturing

YES NO

Logistics, supply chain, delivery or distribution methods for its inputs, goods or services

YES NO

Supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing

YES NO

Improved knowledge management systems or changes in the managing structure

YES NO

Q23. Please evaluate the importance of the following sources of knowledge for

Exploring new ideas: Acquiring the knowledge about new technologies, new products, process technologies elsewhere from these sources in the question.

Actually developing new products: Putting into action the knowledge acquired from the sources in the question and take one more step to produce a new product.

Exploring new ideas, technologies and markets for your company	1=not important 5=extremely important	Actually developing new products and services sold by your company
---	--	---

1	2	3	4	5		1	2	3	4	5
					Clients or customers					
					Suppliers					
					Competitors in your sector					
					Government or public research institutes					
					Universities or other higher education institutes					
					External commercial labs/ R&D firms					
					In-house (know-how, R&D unit in your firm)					
					Trade fairs, conferences and exhibitions					
					Scientific journals and other trade or technical publications including patent disclosures					
					Other (please specify)					

Q24. Have you introduced any new product, service or process which turned out to be unsuccessful over the past three years (risk-taking)?

YES NO

Dynamic Capabilities

Q25) Please indicate to what extent you agree or disagree with the following statements regarding the sensing and seizing of opportunities within your firm:

1=strongly disagree /5= strongly agree

	1	2	3	4	5
Our firm actively observes and adopts the best practices in our sector					
Our firm responds rapidly to competitive moves					
We change our practices based on customer feedback					
Our firm regularly considers the consequences of changing market demand in terms of new products and services					
Our firm is quick to recognize shifts in our market (e.g. competition,					

regulation, demography)					
We quickly understand new opportunities to better serve our customers					
There is a formal R&D department in our firm					
There is a formal engineering and technical studies department in our firm					
Design activity is important in introducing new products/services to the market					
We implement systematic internal and external personnel training					
Employees share practical experiences on a frequent basis					
Other (please specify)					

Networking Capability

Q26. To what extent have your networks/contacts with other firms/institutions/suppliers contributed to the following activities of the company?

1=not important to 5=extremely important

	1	2	3	4	5
Selecting suppliers					
Recruiting skilled labour					
Collecting information about competitors					
Accessing distribution channels					
Assistance in obtaining business loans/attracting funds					
Advertising and promotion					
Developing new products					
Managing production and operations					
Assistance in arranging taxation or other legal issues					
Exploring export opportunities					
Other (please specify)					

Marketing Capability

Q27. What are your selling markets (% of turnover)?

%

Regional market ...

National market ...

International market ...

Q28. How do you rate your company in the following marketing capabilities?

Planning flexibility:

1=strongly disagree /5= strongly agree

	1	2	3	4	5
If a shift in customer needs and preferences occurs, we can easily change our strategic plan					
Our company can easily change its strategic plan if a new technology emerges.					
If shifts in economic conditions occur, we can easily change our strategic plan.					
If a new opportunity emerges, we can easily change our strategic plan.					
If an unexpected threat arises, we can easily change our strategic plan.					

Marketing implementation:

1=strongly disagree /5= strongly agree

	1	2	3	4	5
Translating marketing strategies into action.					
Executing marketing strategies quickly.					
Monitoring marketing performance.					

Product development:

1=strongly disagree /5= strongly agree

	1	2	3	4	5
Superior price/quality ratio.					

Ability to develop new products/services adapted to customer needs.					
Successfully launching new products/services.					
Ability to develop better products than the competition.					

Service responsiveness:

1=strongly disagree /5= strongly agree

	1	2	3	4	5
Ability to provide rapid response to clients.					
Superior levels of service customization.					
Rapid response to customer complaints.					

Pricing:

1=strongly disagree /5= strongly agree

	1	2	3	4	5
Using pricing skills and systems to respond quickly to market changes.					
Knowledge of competitors' pricing tactics.					
Monitoring competitors' pricing and pricing changes.					

Marketing communication:

1=strongly disagree /5= strongly agree

	1	2	3	4	5
Sales management skills.					
Giving the salespeople the training they need to be effective.					
Providing effective sales support to the sales force.					
Developing and executing advertising programs.					

Customer performance:

1=strongly disagree /5= strongly agree

	1	2	3	4	5
Customer satisfaction.					
Customer loyalty/retention.					
Added value provided to customers.					
Adaptation to customer preferences.					
Improved communication with customers.					
Reduction in the number of customer complaints.					
Improved customers' perceived image of the firm.					
Retained most-valued customers.					

Q29. What are your distribution channels?

%

Wholesalers

Super and Hypermarkets

Other channels

Teamwork Capability

Q30. The work in the firm is rather teamwork based, mainly organised by the members of the team themselves

- Applies entirely;
- Generally applies;
- 3. Partially applies;
- 4. Does not apply at all;

Q31. If your business operation is organised through teamwork, which is the most common size of the team?

- 1 – 3 members
- 3 – 5
- 5 – 8
- 8 – 10

Q32: Is the team organised in an autonomous basis? (i.e. a team that organises everyday work by itself)

- Yes
- Now

Q33: If your daily business activities are organised on teamwork basis, what form does it usually take?

- Flexible teams using member rotation, set up for individual projects or problems
- Entirely independent, separately functioning teams (which decide on work distribution and rewards)
- The group is responsible for its results, but at the same time is reviewed from outside
- The group does not have special responsibility for its results and is managed as a whole entity
- Regular cooperation in the group with emphasis on task allocation for individuals
- Daily activities mostly are not organised on teamwork basis.

SECTION IV

(Management practice interview guide)

Any score from 1 to 5 can be given, but the scoring guide and examples are only provided for scores of 1, 3 and 5. Multiple questions are used for each dimension to improve scoring accuracy.

Operations (**Introduction of modern manufacturing techniques**)

What aspects of manufacturing have been formally introduced, including just-in-time delivery from suppliers, automation, flexible manpower, support systems, attitudes and behaviour?

Score 1	Score 3	Score 5
Other than JIT delivery from suppliers few modern manufacturing techniques have been introduced, (or have been introduced in an ad-hoc manner)	Some aspects of modern manufacturing techniques have been introduced, through informal/isolated change programmes	All major aspects of modern manufacturing have been introduced (Just-in-time, automation, flexible manpower, support systems, attitudes and behaviour) in a formal way

Operations (**Rational for introduction of modern manufacturing techniques**)

Were modern manufacturing techniques adopted just because others were using them, or are they linked to meeting business objectives like reducing costs and improving quality?

Score 1

Modern manufacturing techniques were introduced because others were using them.

Score 3

Modern manufacturing techniques were introduced to reduce costs

Score 5

Modern manufacturing techniques were introduced to enable us to meet our business objectives (including costs)

Operation (Process problem documentation)

Are process improvements made only when problems arise, or are they actively sought out for continuous improvement as part of a normal business processes?

Score 1

No, process improvements are made when problems occur.

Score 3

Improvements are made in 1 week workshops involving all staff, to improve performance in their area of the plant

Score 5

Exposing problems in a structured way is integral to individuals' responsibilities and resolution occurs as a part of normal business processes rather than by extraordinary effort/teams

Monitoring (Performance Tracking)

Is tracking ad hoc and incomplete, or is performance continually tracked and communicated to all staff?

Score 1

Measures tracked do not indicate directly if overall business objectives are being met. Tracking is an ad-hoc process (certain processes aren't tracked at all)

Score 3

Most key performance indicators are tracked formally. Tracking is overseen by senior management.

Score 5

Performance is continuously tracked and communicated, both formally and informally, to all staff using a range of visual management tools.

Monitoring (Performance review)

Is performance reviewed infrequently and only on a success/failure scale, or is performance reviewed continually with an expectation of continuous improvement?

Score 1

Performance is reviewed infrequently or in an un-meaningful way e.g. only success or failure is noted.

Score 3

Performance is reviewed periodically with both successes and failures identified. Results are communicated to senior management. No clear follow-up plan is adopted.

Score 5

Performance is continually reviewed, based on indicators tracked. All aspects are followed up ensure continuous improvement. Results are communicated to all staff

Monitoring (Performance dialog)

In review/performance conversations, to what extent is the purpose, data, agenda, and follow-up steps (like coaching) clear to all parties?

Score 1

The right data or information for a constructive discussion is often not present or conversations overly focus on data that is not meaningful. Clear agenda is not known and purpose is not stated explicitly

Score 3

Review conversations are held with the appropriate data and information present. Objectives of meetings are clear to all participating and a clear agenda is present. Conversations do not, as a matter of course, drive to the root causes of the problems.

Score 5

Regular review/performance conversations focus on problem solving and addressing root causes. Purpose, agenda and follow-up steps are clear to all. Meetings are an opportunity for constructive feedback and coaching.

Monitoring (Consequence Management)

To what extent does failure to achieve agreed objectives carry consequences, which can include retraining or reassignment to other jobs?

Score 1

Failure to achieve agreed objectives does not carry any consequences

Score 3

Failure to achieve agreed results is tolerated for a period before action is taken.

Score 5

A failure to achieve agreed targets drives retraining in identified areas of weakness or moving individuals to where their skills are appropriate

Targets(Target balance)

Are the goals exclusively financial, or is there a balance of financial and non-financial targets?

Score 1

Goals are exclusively financial or operational

Score 3

Goals include non-financial targets, which form part of the performance appraisal of top management only (they are not reinforced throughout the rest of organisation)

Score 5

Goals are a balance of financial and non-financial targets. Senior managers believe the non-financial targets are often more inspiring and challenging than financials alone.

Targets (Targets interconnection)

Are goals based on accounting value, or are they based on shareholder value in a way that works through business units and ultimately is connected to individual performance expectations?

Score 1

Goals are based purely on accounting figures (with no clear connection to shareholder value)

Score 3

Corporate goals are based on shareholder value but are not clearly cascaded down to individuals

Score 5

Corporate goals focus on shareholder value. They increase in specificity as they cascade through business units ultimately defining individual performance expectations.

Targets (targets time horizon)

Does top management focus mainly on the short term, or does it visualize short-term targets as a “staircase” toward the main focus on long-term goals?

Score 1

Top management's main focus is on short term targets

Score 3

There are short and long term goals for all levels of the organisation. As they are set independently, they are not necessarily linked to each other

Score 5

Long term goals are translated into specific short term targets so that short term targets become a "staircase" to reach long term goals

Targets (Targets are stretching)

Are goals too easy to achieve, especially for some “sacred cows” areas of the firm, or are goals demanding but attainable for all parts of the firm?

Score 1

Goals are either too easy or impossible to achieve; managers low-ball estimates to ensure easy goals

Score 3

In most areas, top management pushes for aggressive goals based on solid economic rationale. There are a few "sacred cows" that are not held to the same rigorous standard

Score 5

Goals are genuinely demanding for all divisions. They are grounded in solid, solid economic rationale

Monitoring(Performance clarity and comparability)

Are performance measures ill-defined, poorly understood, and private, or are they well-defined, clearly communicated, and made public?

Score 1

Performance measures are complex and not clearly understood. Individual

performance is not made public

Score 3

Performance measures are well defined and communicated; performance is public

in all levels but comparisons are discouraged

Score 5

Performance measures are well defined, strongly communicated and reinforced at all reviews;

performance and rankings are made public to induce competition

Targets (Managing human capital)

To what extent are senior managers evaluated and held accountable for attracting, retaining, and developing talent throughout the organization?

Score 1

Senior management do not communicate that attracting, retaining and developing talent throughout the organisation is a top priority

Score 3

Senior management believe and communicate that having top talent throughout the organisation is a key way to win

Score 5

Senior managers are evaluated and held accountable on the strength of the talent pool they actively build

Incentives (rewarding high performance)

To what extent are people in the firm rewarded equally irrespective of performance level, or is performance clearly related to accountability and rewards?

Score 1

People within our firm are rewarded equally irrespective of performance level

Score 3

Our company has an evaluation system for the awarding of performance related rewards

Score 5

We strive to outperform the competitors by providing ambitious stretch targets with clear performance related accountability and rewards

Incentives (removing poor performers)

Are poor performers rarely removed, or are they retrained and/or moved into different roles or out of the company as soon as the weakness is identified?

Score 1

Poor performers are rarely removed from their positions

Score 3

Suspected poor performers stay in a position for a few years before action is taken

Score 5

We move poor performers out of the company or to less critical roles as soon as a weakness is identified

Incentives (Promoting high performers)

Are people promoted mainly on the basis of tenure, or does the firm actively identify, develop and promote its top performers?

Score 1

People are promoted primarily upon the basis of tenure

Score 3

People are promoted upon the basis of performance

Score 5

We actively identify, develop and promote our top performers

Incentives (attracting human capital)

Do competitors offer stronger reasons for talented people to join their companies, or does a firm provide a wide range of reasons to encourage talented people to join?

Score 1

Score 3

Score 5

Our competitors offer stronger reasons for talented people to join their companies

Our value proposition to those joining our company is comparable to those offered by others in the sector

We provide a unique value proposition to encourage talented people join our company above our competitors

Incentives (Retaining human capital – talent)

Does the firm do relatively little to retain top talent, or do whatever it takes to retain top talent when they look likely to leave?

Score 1

Score 3

Score 5

We do little to try and keep our top talent.

We usually work hard to keep our top talent.

We do whatever it takes to retain our top talent.

SECTION V

(Performance: sales, profits, assets)

Please estimate:

Growth 2009 - 2012	0 to 4%	Slight Increase (5% to 9%)	Significant Increase (10% to 19%)	Very Significant Increase (>20%)
Sales				
Profits				
Assets				

58. Please estimate:

Decline 2009 - 2012	0 to -4%	Slight Decrease (-5% to 9%)	Sign. Decrease (-9% to 19%)	Very Significant Decrease (>-20%)
Sales				
Profits				
Assets				

Appendix F: List of indicators used generated by the Mann-Whitney U Test

		All sample (16 pairs)		
		Observations		
No:	STATEMENT INDICATOR	High growing	Other firms	Sig. (2-tailed) ¹⁰⁸
1	Number of employees	15.32	13.68	0.261
2	Formal education of founders	14.91	18.09	0.292
	EXPERIENCE AND OCCUPATION			
3	Last occupation of founders	19.97	13.3	0.03
4	Years of professional experience has the founder had before firm establishment	15.41	17.59	0.561
5	Areas of expertise of the founder	15.16	16.9	0.539
	EDUCATION			
6	Number of employees with university diplomas	18.32	13.03	0.091
7	Number of employees with Master's degrees (MSc or MA)	5.08	4.83	0.594
8	Number of employees with PhD degrees	18	15	0.47
	TRAININGS			
9	In-firm provision of training	13	20	0.015
10	Industry-organised training programmes	15.5	17.5	0.431
11	Private training agencies	16.5	16.5	0.154
12	Training provided by universities	16.5	16.5	1
13	Technical training colleges	16	17	0.325
14	EU funded training schemes	2	30	1
	MARKET ENVIRONMENT	16.5	16.5	
15	Sales in local market	1.5	4.5	0.065
16	Sales in national market	18.84	12.97	0.158
17	Sales in foreign market	9.72	11.14	0.959
18	Large firm customers	18.84	11.67	0.667
19	Small firm customers	10.5	11.67	0.643
20	Final consumers	13.68	14,35	0.737
21	Public sector	13.68	14,35	1
	FACTORS THAT INFLUENCE THE NATURE OF COMPETITION			
22	Price	14.97	18.03	0.234
23	Quality	18.69	14.31	0.134
24	Customer service and interpersonal relations	17.75	15.25	0.542
25	Marketing of new or significantly improved products and services	15.78	17.22	1
	PRIMARY COMPETITIVE ADVANTAGE OF COMPANY			
26	Product/service quality	18.75	14.24	0.14
27	Product customisation	16.56	16.44	1

¹⁰⁸Sig. represents p value

28	Cost competitiveness	17.13	15.88	0.598
	CONTRIBUTION OF FACTORS IN CREATING AND SUSTAINING COMPETITIVE ADVANTAGE			
29	Innovation	17.97	15.03	0.39
30	Alliances/partnerships	15.5	17.5	0.0602
31	Marketing and promotion	17.56	15.44	1
	FACTORS THAT CREATE OBSTACLES IN THE ENTREPRENEURIAL ACTIVITY			
32	Large sunk investment	16.34	16.66	1
33	Funding constraints	17.19	15.81	0.492
34	Demand or market constraints	15.47	17.53	0.667
35	Marketing problems (i.e. lack of marketing and management know-how)	13.22	19.78	0.021
36	Lack of technological know-how	17.88	15.13	0.54
37	Difficulty in finding partners for technological collaboration (i.e. joint product production, technical assistance, etc.)	17.34	15.66	0.413
38	Difficulty in finding employees with technical skills	19.13	13.88	0.079
39	Difficulty in keeping employees with technical skills	13.41	19.59	0.052
40	Competition and barriers of entry created by large companies	17.5	15.5	0.896
	SIGNIFICANCE OF FOLLOWING BARRIERS IN OPERATING ACTIVITIES			
41	High tax rates	15.34	17.66	0.633
42	Time consuming regulatory requirements for issuing permits and licenses	13.53	19.47	0.15
43	Insufficient competition law to curb monopolistic practices	17.31	15.69	0.701
44	Poorly enforced copyright and patent protection	16.22	16.78	0.911
45	High level of corruption	17.13	15.88	0.688
46	Government officials favour well connected individuals	16.84	16.16	0.885
47	Bankruptcy legislation makes the cost of failure too great	17.09	15.94	0.592
48	Unsupportive labour market legislation	15.94	17.06	0.747
	PURCHASE OF TECHNOLOGY			
49	New plant and equipment	16.5	16.5	1
50	Information technology	15	18	0.303
51	Other technology	16.5	16.5	1
	FUNDING			
52	Internal funds	16.44	15.53	0.777
53	Funding from family member			1
54	Funding from previous employer			1
55	Venture capital			1
56	Funding from a bank	10.44	10.55	0.904
57	Public funding from national government or local authorities			1
58	Public funding from national government or local authorities			1
59	European Union funds	2	1	1
60	Other sources			1
	ORGANISATIONAL CAPABILITIES			
	ENTREPRENEURSHIP & INNOVATION CAPABILITY			

61	Introduction of new or significantly improved goods or services during the past three years	13.5	19.5	0.007
62	The new or significantly improved goods or services were new to the firm	15.5	17.5	0.453
63	The new or significantly improved goods or services were new to the national market	13.5	19.5	0.031
64	The new or significantly improved goods or services were new to the world	16.5	16.5	1
65	New methods of production	15.5	17.5	0.031
66	Logistics, supply chain, delivery or distribution methods for its inputs, goods or services	16.5	16.5	1
67	Supporting activities for your processes, such as maintenance systems or operations for purchasing, accounting, or computing	19.25	13.75	1
68	Improved knowledge management systems or changes in the managing structure	16.5	16.5	1
	EXPLORING NEW IDEAS			
69	Clients or customers	19.25	13.75	0.084
70	Suppliers	15.31	17.69	0.355
71	Competitors in your sector	16.47	16.53	0.888
72	Government or public research institutes	17	16	0.325
73	Universities or other higher education institutes	17	16	0.325
74	External commercial labs/ R&D firms	17	16	0.325
75	In-house (know-how, R&D unit in your firm)	15.5	17.5	0.154
76	Trade fairs, conferences and exhibitions	17.13	15.88	0.716
77	Scientific journals and other trade or technical publications including patent disclosures	16.5	16.5	0.903
78	Introduction of any new product, service or process which turned out to be unsuccessful over the past three years (risk-taking)	14	19	0.053
	DYNAMIC CAPABILITIES			
79	Our firm actively observes and adopts the best practices in our sector	20.13	12.88	0.02
80	Our firm responds rapidly to competitive moves	16.59	16.41	0.848
81	We change our practices based on customer feedback	19.5	13.5	0.058
82	Our firm regularly considers the consequences of changing market demand in terms of new products and services	19.56	13.44	0.054
83	Our firm is quick to recognize shifts in our market (e.g. competition, regulations, demography)	15	18	0.325
84	We quickly understand new opportunities to better serve our customers	16.66	16.34	0.852
85	There is a formal R&D department in our firm	16.5	16.5	1
86	There is a formal engineering and technical studies department in our firm	16	17	0.325
87	Design activity is important in introducing new products/services to the market	15.78	17.22	0.665
88	We implement systematic internal and external personnel training	20	13	0.031
89	Employees share practical experiences on a frequent basis	19.75	13.25	0.04
	NETWORKING CAPABILITY			
90	Selecting suppliers	19.25	13.75	0.072
91	Recruiting skilled labour	19.84	13.16	0.035
92	Collecting information about competitors	16.41	16.59	1

93	Accessing distribution channels	16.19	16.81	0.841
94	Assistance in obtaining business loans/attracting funds	12.5	20.5	0.011
95	Advertising and promotion	16.19	16.81	0.89
96	Developing new products	15.44	17.56	0.565
97	Managing production and operations	15.63	17.38	0.663
98	Assistance in arranging taxation or other legal issues	12.88	20.13	0.023
99	Exploring export opportunities	15.47	17.53	0.551
	MARKETING - PLANNING FLEXIBILITY			
100	If a shift in customer needs and preferences occurs, we can easily change our strategic plan	16.75	16.25	1
101	Our company can easily change its strategic plan if a new technology emerges.	17.09	15.91	0.63
102	If shifts in economic conditions occur, we can easily change our strategic plan.	16.41	16.59	0.888
103	If a new opportunity emerges, we can easily change our strategic plan	15.5	17.5	0.52
104	If an unexpected threat arises, we can easily change our strategic plan	15.63	17.38	0.781
	MARKETING IMPLEMENTATION			
105	Translating marketing strategies into action	17.13	15.88	0.653
106	Executing marketing strategies quickly	17.63	15.38	0.356
107	Monitoring marketing performance	16.56	16.44	0.897
	PRODUCT DEVELOPMENT			
108	Ability to develop new products/services adapted to customer needs	17.59	15.41	0.602
109	Successfully launching new products/services	16.63	16.38	1
110	Ability to develop better products than the competition	17.47	15.53	0.485
	SERVICE RESPONSIVENESS			
111	Ability to provide rapid response to clients	17.53	15.47	0.599
112	Superior levels of service customization	17.25	15.75	0.652
113	Rapid response to customer complaints	17.03	15.97	0.772
	PRICING			
114	Using pricing skills and systems to respond quickly to market changes	17.16	15.84	0.87
115	Knowledge of competitors' pricing tactics	16.5	16.5	0.881
116	Monitoring competitors' pricing and pricing changes	15.75	17.25	0.79
	MARKETING COMMUNICATION			
117	Sales management skills	17.34	15.66	0.796
118	Giving the salespeople the training they need to be effective	15.94	17.06	1
119	Providing effective sales support to the sales force	17.34	15.66	0.702
120	Developing and executing advertising programs	17.06	15.94	1
	CUSTOMER PERFORMANCE			
121	Customer satisfaction	20.13	12.88	0.02
122	Customer loyalty/retention	19.75	13.25	0.042
123	Added value provided to customers	16	17	0.716
124	Adaptation to customer preferences	15.5	17.5	0.449
125	Improved communication with customers	17.66	15.34	0.518

126	Reduction in the number of customer complaints	17	16	1
127	Improved customers' perceived image of the firm	16.13	16.88	0.86
128	Retained most-valued customers	17.16	15.84	0.552
	TEAMWORK CAPABILITY			
129	Work in the firm is rather teamwork based	14.69	18.31	0.333
130	Size of the team	16.41	16.59	
131	Team is organised in an autonomous basis	15.5	17.5	0.462
132	The group is responsible for its results, but at the same time is reviewed from outside	15.06	17.94	0.086
	MANAGEMENT PRACTICES			
	OPERATIONS			
133	Introduction of modern manufacturing techniques	17.06	15.94	0.462
134	Rational for introduction of modern manufacturing techniques	16.16	16.84	0.816
135	Process problem documentation	14.44	18.56	0.185
	MONITORING			
136	Performance Tracking	19.69	13.31	0.031
137	Performance review	15.31	17.69	0.426
138	Performance dialog	18.88	14.13	0.108
139	Consequence Management	20.25	12.75	0.007
140	Performance clarity and comparability	19.44	13.56	0.045
	TARGETS			
141	Target balance	15.5	17.5	0.495
142	Targets interconnection	16.56	16.44	0.7
143	Targets time horizon	19.59	13.41	0.047
144	Targets are stretching	19.63	13.38	0.045
145	Managing human capital	19.31	13.69	0.061
	INCENTIVES			
146	Rewarding high performance	16	17	0.729
147	Removing poor performers	19	14	0.065
148	Promoting high performers	19.31	13.69	0.037
149	Attracting human capital	19.65	13.52	0.004
150	Retaining human capital – talent	17.78	15.22	0.332

Appendix G: Background information on Riinvest Institute Survey

The dataset used to conduct the analysis on the impact of business environment factors on the growth of firms was obtained from Riinvest Institute in Prishtina. The survey was conducted in April 2013 and covered 600 firms. Firms were selected from a database issued by Tax Administration at the confidence interval 99 per cent. The respondents were company owners/managers from all economic sectors, and all Kosovo's regions. The structure of the questionnaire included general information about the firm, issues related to business environment factors, fiscal issues, labour force issues, sales and operations, etc. The interviewing process allowed respondents to share their perspectives regarding their own difficulties and challenges they face to run their business firms. The procedure enabled them to express their views and perceptions on issues such as tax and labour regulations, business practices and business environment barriers within which they operate.

Appendix H: Details of the survey questions on business environment factors



Questionnaire

INSTITUTI RIINVEST 2013

Section E: Business Environment							
Q.49 How would you rank the following business obstacles?							
		Not at all	Not really	Neutral	Somewhat	Very much	No answer
1	Access on finance	1	2	3	4	5	9
2	Cost of financing	1	2	3	4	5	9
3	Collection of debts	1	2	3	4	5	9
4	Telecommunications	1	2	3	4	5	9
5	Power Supply	1	2	3	4	5	9
6	Transportation	1	2	3	4	5	9
7	Access on Land	1	2	3	4	5	9
8	Tax rates	1	2	3	4	5	9
9	Tax Administration	1	2	3	4	5	9
10	Customs and trade regulations	1	2	3	4	5	9
11	Obtaining business licenses	1	2	3	4	5	9
12	Employment regulations	1	2	3	4	5	9
13	Skills and education of workers	1	2	3	4	5	9
14	Economic policy uncertainty	1	2	3	4	5	9
15	The functioning of the judiciary	1	2	3	4	5	9
16	Corruption	1	2	3	4	5	9
17	Crime, theft and disorder	1	2	3	4	5	9
18	Unfair competition (tax evasion and informality)	1	2	3	4	5	9
19	Organised crime / mafia / racketeering	1	2	3	4	5	9
20	Unfair practices	1	2	3	4	5	9
21	Failure of contracts by customers and suppliers	1	2	3	4	5	9
22	Political instability	1	2	3	4	5	9
23	Production standards	1	2	3	4	5	9
24	Access on information and business services	1	2	3	4	5	9

Appendix I: The logistic regression model

Logistic regression analysis is a statistical method and is similar to linear regression analysis except that the outcome is dichotomous (e.g., success/failure or yes/no). It makes use of mathematical models to describe relationships. It is an approach to prediction, i.e. the aim is predicting a dichotomous outcome. In essence, the objective of logistic regression analysis is to examine the odds of an outcome occurring (or not), and by using the natural log of the odds of the outcome as the dependent variable the relationships can be linearized and treated much like multiple linear regression (Cabrera, 1994).

While simple logistic regression analysis refers to the regression application with one dichotomous outcome and one independent variable; multiple logistic regression analysis applies when there is a single dichotomous outcome and more than one independent variable (Hosmer and Lemeshow, 2000).

The outcome in logistic regression analysis is often coded as 0 or 1, where 1 indicates that the outcome of interest is present, and 0 indicates that the outcome of interest is absent (Austin et al., 1992). If p is defined as the probability that the outcome is 1, the multiple logistic regression model can be written as follows:

$$\hat{p} = \frac{\exp(b_0 + b_1X_1 + b_2X_2 + \dots + b_pX_p)}{1 + \exp(b_0 + b_1X_1 + b_2X_2 + \dots + b_pX_p)}$$

\hat{p} is the expected probability that the outcome is present; X_1 through X_p are distinct independent variables; and b_0 through b_p are the regression coefficients. In some cases the multiple logistic regression model is written differently. In the following form, the outcome is the expected log of the odds that the outcome is present,

$$\ln\left(\frac{\hat{p}}{(1-\hat{p})}\right) = b_0 + b_1X_1 + b_2X_2 + \dots + b_pX_p$$

As it can be noticed, the right hand side of the equation above looks like the multiple linear regression equation. However, the technique for estimating the regression coefficients in a logistic regression model is different from that used to estimate the regression coefficients in a multiple linear regression model. In logistic regression the coefficients derived from the model (e.g., b_1) indicate the change in the expected log odds relative to a one unit change in X_1 , holding all other predictors constant. Therefore, the antilog of an estimated regression coefficient, $\exp(b_i)$, produces an odds ratio.

The application of logistic regression methods provides a number of advantages. Among the most cited include: Logistic regression has several advantages over discriminant analysis: the independent variables do not have to be normally distributed, the independent and dependent variables are not

required to have a linear relationship between each other, no homogeneity of variance assumption required, normally distributed error terms are not assumed, etc.

However, this statistical method has also many limitations. For instance, logistic regression analysis assumes that there is an s-shaped dependency between the probabilities of group memberships and a linear function of the predictor variables, and it also makes the assumption of independency among the observations (Pampel, 2000). However, the analysis of the residuals may reveal patterns that indicate the presence of multicollinearity or can identify outliers, which can distort the valid estimation of the logistic coefficients (Wright, 1995). Another limitation is related to the number of cases. So, in order for logistic regression to give trustworthy and reliable estimates, it requires a large number of cases, that is, the more unequal groups are formed from the dependent variable, the more cases are needed (Pampel, 2000). On the other hand, logistic regression does not demand multivariate normality or homoscedasticity for the predictor variable, but if these conditions are fulfilled, the power of the prediction is increased (Pampel, 2000; Wright, 1995). Outliers are another concern when logistic regressions are applied, because outliers can affect results significantly. Therefore, it is important to analyse standardized residuals for outliers and consider removing them or modelling them separately (Hosmer and Lemeshow, 2000). To derive parameters, this statistical method uses maximum likelihood estimation (MLE) rather than ordinary least squares (OLS). MLE relies on large-sample asymptotic normality which means that reliability of estimates declines when there are few cases for each observed combination of independent variables (Cabrera, 1994; Hosmer and Lemeshow, 2000).

The application of logistic regression method is based at least on three assumptions. First assumption is related to the size and the nature of the sample. The larger the sample the better is for the analysis. The second requirement is related to the nature of the data, namely they have to be categorical. Wherever required, variables were subject of recoding of their original scores to meet one of the key assumptions and at the same time to ensure their suitability for this analysis. Therefore the Likert-scale scores were transformed into dummy variables, for instance, 0 = no constraint/high-growing firm/exporting firm, and 1 = constraint/other firms/non-exporting firms. Second assumption is multicollinearity, namely cases should always be checked for high intercorrelations among predictor (independent) variables, something that was properly dealt by using collinearity diagnostics. Third assumption is related to the presence of outliers. The process was dealt by inspecting all possible residuals.

Appendix J: Background information on BSCK Survey

The dataset used to conduct analysis in Chapter 6 on social conditions of innovative enterprise was obtained from Business Support Centre Kosovo (BSCK). The survey was carried out in December 2012, with a sample of 500 small and medium sized enterprises (SMEs).

The following information regarding how the research was designed is extracted from the BSCK research report (BSCK, 2013). According to this report, the aim of this research is to analyse the profile of entrepreneurship and SMEs in Kosovo. The process of designing the survey questionnaire and the sample selection has been supported by numerous experts. The process of interviews was conducted face - to face with the key people in each enterprise, mainly owner/managers or financial managers. The questionnaire contained nine sections covering major aspects of entrepreneurship

and SME development in Kosovo. The respondents were asked to provide qualitative (their motives for start – up and growth, data on enterprise performance, perceptions of the business environment and future prospects) and a quantitative answer on internal characteristics of the respective firm (years in the business, location, size of the company in terms of employment, value of assets, sector of activity, etc.) and information on their innovation activities and information technology.

The sample was drawn randomly from the business register provided by Kosovo Business Registration Agency. The stratifications were applied and satisfactory results in terms of statistical representation of the both sector and size class was yielded. Table VI.1 below presents more accurate information on the share of enterprises in the population and the sample by size and sector.

Table Appendix. J.1 Share of enterprises in the population and the sample by size and sector (in %)

Sector Size	Micro	Small	Medium	Total	% Share of sector in population	% Share of sector in the sample
Manufacturing	95.2	2.4	2.4	100.0	10.1	23
Services	97.0	1.7	1.3	100.0	40.0	35
Trade	98.7	0.8	0.6	100.0	50.0	42
% share of company size in the population	97.7	1.3	1.0	100.0	100.0	100
% share of company size in the sample	70	25	5	100	-	-

Source: BSCK, 2013

After statistical stratification the total sample by sector and size was chosen, as presented below on table appendix 2.1.

Table Appendix J.2 Total sample by sector and size (number of firms)

Sector Size	Micro	Small	Medium	Total
Manufacturing	34	24	6	115
Service	140	64	12	174
Trade	176	37	7	211
Total	350	125	25	500

Source: BSCK, 2013

Further, the sample includes SMEs across all regions of Kosovo and is stratified by three main sectors in order to reflect the differences between trade, production and services (BSCK, 2013). Statistical stratification was also done in terms of size in order to ensure the representation of medium firms within the SME sector (BSCK, 2013).

The data collection was carried out by a trained team of interviewers at BSCK who were students at the Faculty of Economics of the University of Prishtina and of University College of International Management “GLOBUS”.

For the purpose of this study, the questions selected from the survey are related to main indicators of social conditions conducive for the emergence of innovative enterprise. More specifically, the questions have to do with the strategic control, organisational integration, and financial commitment at firm level. The selected questions are given below.

Appendix K: Details of the survey questions on social conditions - BSK

I. GENERAL INFORMATION ABOUT THE FIRM

1. Your firm is:

Sole proprietorship

Partnership

Ltd

Stock holding company

2. The legal structure of your firm is:

Unlimited liability company,

Limited liability company

3. What percentage of the property possesses the largest owner in the firm, if there is more than one owner?

The largest percentage held by owner	%
--------------------------------------	---

4. If the number of founders is greater than 1 what is the connection between them (you can have more than one answer):

Family connection

Professional connection

3. Investment / Joint Financing

Other _____

5. Have you had experience in the field in which you start your business?

I had a great experience in the the same business

I had no experience in the the same business

6. Did you have any business plan before you started with your firm?

1. Yes

2. No

7. Are you operating based on a business plan?

1.

Yes

2. No

10. Rate according to their importance the following strategic goals (5-very important to the least important one):

Product quality

Image

Excellent services

Market share

Industry positioning

Penetration in international markets

11. Do you have any permanent partner from abroad?

1. Yes 2. No

IX. PERSONNEL

Describe the management structure:

	Description	1.M	2.F	Age	Qualification				
					PhD	Master	Degree	Secondary	Elementary
1	CEO								
2	CFO								
3	Technical director								
4	Head of marketing								
5	R&D Head								
6	Other								

2. Have you attended training courses related to business or management activities?

1. Yes 2. No

3. Did you hold any managerial position before started to work for this company?

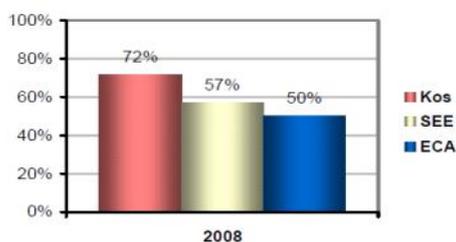
1. Yes 2. No

4. Do you utilize consultants (consulting for business from any public or private institution)?

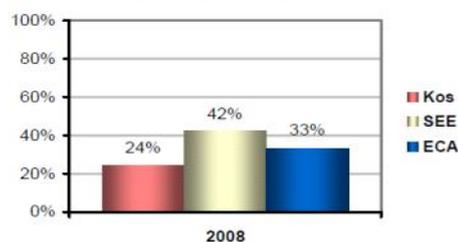
1. Yes 2. No

Appendix L: Labour and workforce development

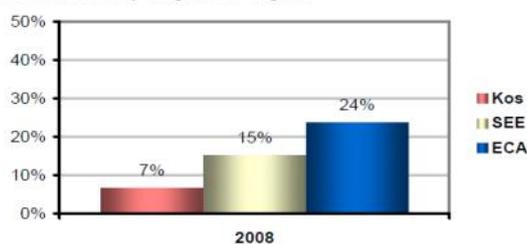
7.1: Problems Doing Business: Labor Regulations³**
Percentage of firms indicating labor regulations are not a problem



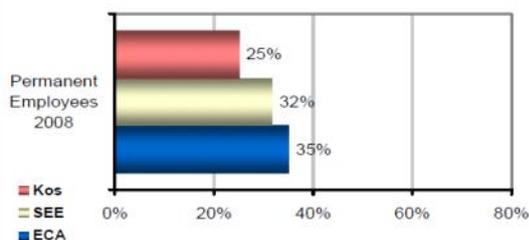
7.2: Problems Doing Business: Skills and Education of Workers³**
Percentage of firms indicating skills and education of available workers is not a problem



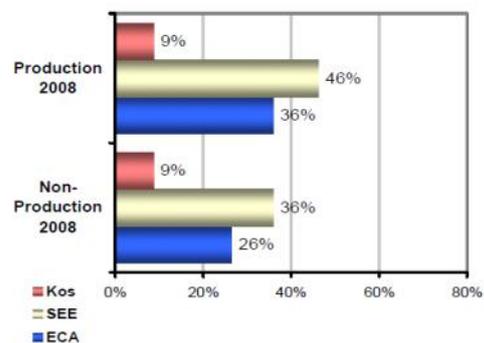
7.3: Professionalism of Labor**
Percentage of employees that have a university degree or higher



7.4: Provision of Formal Training³**
Percentage of firms offering training for employees



7.5: Percent of Employees Trained^{1 3}**
Percentage of employees participating in training



Source: World Bank (2010)

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