

Manufacturing firms and entrepreneurial dynamics in less developed economies: Kosovo in comparative perspective

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Abstract: This paper examines patterns of dynamics of manufacturing firms in Kosovo's economy over the period 2008–2017. The findings for Kosovo are discussed and analysed in the context of comparator countries at different economic levels. The findings show that although the number of incumbent manufacturing firms in Kosovo is almost half less than in comparator countries, there is a vibrant entrepreneurial environment which is supported by young and very small sized firms that are able to survive beyond the age of five. An important pattern that seems to be specific to the country is the rate of exit firms, which is significantly lower than all other reference countries. Although these results support the prevalence of subsistence and necessity-driven entrepreneurship in Kosovo, survival analysis results hint that there may be scope for opportunity-driven entrepreneurship if particularly strong sectors are supported using recent advantages of digitalisation and greening agenda in the economy.

Keywords: creative destruction; firm dynamics; small business; duration analysis; entrepreneurship; hazard function; manufacturing; least developed countries; Kosovo.

JEL codes: O10; O11; O12; L0; C41; L60.

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Biographical notes: Fadil Sahiti worked as an Associate Lecturer and Tutor for prestigious UK educational institutions such as the Birkbeck, LSE and UCL, prior to joining Rochester Institute of Technology in Kosovo, for five years. He has extensive experience in developing and coordinating project management systems, including managing people and organisations with diverse agendas. He has held managerial positions for various national and international organisations, as well as private business firms, such as UNDP, DFC, CIPE, Riinvest Institute, NLB and Raiffeisen Bank. His research interests consist in the growth of firms, especially in the factors that enable and constrain the growth of firms in less developed economies.

1 Introduction

Traditionally, manufacturing plays an important role in the economic growth of countries. The empirical findings from previous studies suggest that a proportion of this economic growth is attributed to manufacturing firm churn and the reallocation of economic resources from shrinking and exiting firms to those that are expanding (Ács and Naudé, 2011; Hallward-Driemeier and Rijkers, 2013). While we know relatively more about this process in the context of the developed economies, evidence on actual patterns of firm churn in the manufacturing sector in less developed economies (LDE) is scarce (Klapper and Richmond, 2009). We address this gap by proposing summary measures for the patterns of firm turbulence in Kosovo's manufacturing sector over a ten-year period. The findings for Kosovo, a lower-middle income economy, are compared to a set of comparator countries with upper-middle and high-income levels. The findings are characterised by the fact that the LDEs are dominated by micro firms, which remain small throughout their lives. This differs from the situation in developed economies, such as Estonia, Latvia and Slovenia, which are characterised by a pronounced 'up-or-out' phenomenon, meaning that small firms that enter the market need to expand or exit.

The aim of the paper is to provide stylised facts for future theoretical and empirical work. To do this, we use a new dataset constructed from three sources, Kosovo Statistical Agency (KAS), Kosovo Agency for Business Registration (KABR) and Eurostat. This dataset covers all manufacturing firms that entered the market during the period 2008–2017. They allow us to identify the entrants in each sub-sector, compare them with incumbent firms and track their subsequent existence or exit over time. In turn, this allows us to describe the life cycle of an entrant and measure the long-term impact of entry on the manufacturing structure in more detail than previously has been possible. We use KABR data to quantify the extent to which factors such as size, location and ownership type explains the variation in firms' survival patterns.

The results from this study suggest that, although the dynamics of manufacturing firms in Kosovo resemble those of the comparator countries, these countries exhibit different patterns of growth and survival. The most significant differences are related to larger rather than smaller firms. First, the findings show that number of incumbent firms in Kosovo is significantly lower than in other countries and that the stock of active firms in Kosovo is overwhelmingly micro firms (1–4 employees). Second, in Kosovo, entry rates of large manufacturing firms are comparatively lower than in other countries, a pattern that seems to be characteristic to Kosovo. Another Kosovo specific pattern seems to be related to exit rate, which is significantly lower than in the comparator countries. These findings imply a relatively low level of firm churn in Kosovo. Finally, this study provides evidence of an inverted U-shaped relationship between the exit risk of manufacturing firms, as well as their age and size.

Unfavourable business environment factors (weak institutional environment, corruption and crime, limited human capital, cost of finance) in developing countries may discourage new firms from entering the market (Asad et al., 2008). Previous studies provide evidence suggesting that lack of regulation, and more specifically inadequate enforcement of regulations to protect investors, is a serious obstacle to setting-up a new firm (Rajan and Zingales, 2003).

The absence of work investigating the role of firm dynamics in the manufacturing sector, in the context of LDEs means that the main contribution of the present paper is that it proposes multidimensional patterns of firm churn and firm survival in this business environment. We provide information on firms and firm survival, disaggregated over ten years, including dimensions such as incumbency, entry, exit, survival, size and legal status. Our results are comparable to the results for other countries. To our knowledge, no previous studies of firm dynamics and firm survival are based on such detailed disaggregation across several dimensions and in relation to firms operating in the manufacturing sector in LDEs. The results of this study should suggest several directions for further research.

The paper is organised as follows. Following introduction, Section 2 discusses the literature related to the topic, Section 3 discusses the profile of Kosovo and the reference countries and Section 4 describes the data and the methodology. The empirical findings on firm churn are presented in Section 5. Section 6 examines survival patterns and rates and Section 7 discusses the firm survival determinants in Kosovo. Section 8 and Section 9 offer some concluding remarks and some policy recommendations.

2 Related literature

There is a growing stream of empirical studies which shows that a portion of economic development can be ascribed to new firm entries/exits, and reallocation of economic resources from firms that shrink and exit to those that enter market and expand (Ahn, 2002; Haltiwanger et al., 2018). This process is fairly evident in the advanced economies, but recent research suggests that it is considerably less so in LDEs (Bloom et al., 2013; Hsieh and Klenow, 2014).

Several empirical studies argue that, conditional on survival, firms in advanced economies experience rapid growth, while those in LDEs do not grow as they age (Hsieh and Klenow, 2014; Akcigit et al., 2016) and that LDEs are characterised, also, by a majority of very small firms. In one of their recent studies Bento and Restuccia (2017) show that firms in lower-income markets are, on average, smaller than in richer ones. This applies to the economy of Kosovo, where 99% of the firm population is micro firms. Most incumbents and new entrants are small sized and rarely grow beyond four workers. In the firm dynamics literature, this is interpreted as lack of market selection forces and as survival of enterprises with less growth potential because firms with innovative capacity do not expand sufficiently to force them out of market (Akcigit et al., 2016).

This body of empirical work is built around Schumpeter's (1934) theory of growth, which, over the past 25 years, is developed into a conceptual framework that explains both macroeconomic and microeconomic firm growth-related issues (Aghion et al., 2014). According to an OECD (2017) an effective and transparent institutional business environment is essential to increasing the number of firms entering the market for the first time. The same study emphasises that a conducive business environment is vital not only for new firms entering the market, but for all phases of the business cycle, including the investment phase, expansion, transfer and exit of firms from the market.

There is a widespread belief that SMEs are the backbone of economies everywhere. For a long time, policy makers, small business advocates, and researchers emphasised the importance of small firms in job creation (Birch, 1979; OECD, 2016a), and innovation and productivity growth (Baumol, 2002; OECD, 2010). Many empirical studies

emphasise the importance of these firms in sustainable economic growth for all countries, including those with high incomes as well as those with lower incomes (Ayyagari et al., 2014).

There are several reasons why small and medium-sized firms (SMEs) are considered important for economic growth. First, more than 95% of business entities worldwide are SMEs (Hashi and Krasniqi, 2008; Ayyagari et al., 2014). These firms make an important contribution to economic development, especially in LDEs, although this contribution varies across countries (IFC, 2010). Second, many SMEs are high-intensity business entities, making a significant contribution to alleviating the unemployment rate in national economies in many parts of the world. According to an OECD (2016b) study, these firms are the main employers in developed economies (about 70% of total employment), but also in developing countries - up to 45% of total employment.

Third, SMEs play a critical role in increasing innovation and productivity. Numerous empirical studies suggest that these firms contribute to the processes of diffusion of invention and/or innovation and the creation of nationally competitive innovation systems (Baumol, 2002; Cuckovic and Bartlett, 2007; Xavier and Maloney, 2017). Although not all of these firms are endowed with innovative capabilities, both new and small firms are often seen as the main driver of radical innovation (Baumol, 2002). To take advantage of new technological and commercial opportunities, these firms often operate outside the dominant paradigm of large firms (OECD, 2010).

However, in recent years a number of empirical studies (see, in particular, Bento and Restuccia, 2017; Ciani et al., 2020) have questioned the importance of small firms in economic development, particularly in emerging economies. These studies argue that public policy in developing countries should pay more attention to supporting the creation of large firms. Their argument is founded on the premise that large firms usually are more productive, they are more likely to innovate and export, to adopt international standards of quality, and also to pay better wages and provide securer employment than small firms.

There is a particular strand of the literature that suggests a range of factors that have an impact on growth as well as on the firm churn. For example, Klapper et al. (2010) and Bripi (2013) show the evidence of the relationship between institutional environment and firm entry and exit. Other empirical work show how access to finance impacts the entry, growth, exit and firm survival (Aghion et al., 2005; Djankov et al., 2008; Kuntchev et al., 2013). Typically, firms in manufacturing sector are more likely to rely on external finance to renew and expand their technology (Kuntchev et al., 2013). For many manufacturing firms, the most important production input is labour. So, authors such as Krasniqi and Mustafa (2016) and Atkin (2016) provide evidence on the impact of human capital on firm churn and growth.

A specific stream of studies discusses the relationship between so-called 'pull and push factors' and firm creation and exit (Bosma et al., 2008). While the pull factors associated with firm creation derive mainly from market opportunities, push factors stem from necessity – especially in LDEs (Naudé, 2010; Schoar, 2010; Naudé et al., 2014; Azoulay et al., 2020).

The distinction between push and pull factors may seem somewhat ambiguous as business opportunities depend considerably on the setting in which business entities are born and operate. Thus, the business opportunities of firms operating in an LDE environment are very different from those operating in developed countries. It is well

known that a business environment does not consist only of institutional conditions and/or access to finance, but also of the level of education, organisational skills, managerial competencies, etc. (Caballero, 2006).

Given the poor quality of these attributes and adding to the problems associated with the weak institutional framework, a significant number of LDE firms operate in the informal sector and are considered surviving firms (Naudé, 2007). Most of firms in LDEs have only one owner, or employ a very small number of employees (Banerjee and Duflo, 2007). Evidence suggests that informality is characteristic of economies with weak institutions, those with unclear or non-existent ‘rules of the game’, and economies characterised by ‘destructive uncertainty’ (Berner et al., 2012). There is much empirical evidence to suggest that the weak institutional environment promotes informality in the economy as well as so-called survival firms, which are unproductive and without growth capacity (De Soto, 1989; Baumol, 1990; Banerjee and Duflo, 2007).

To sum up, numerous empirical studies endorse the view that the creation of new firms and the exit of non-productive ones are essential to dynamising any economic environment. However, this evidence is based, predominantly, on developed economies, with comparatively little evidence on LDEs. Therefore, the question that this paper aims to address is how vibrant entrepreneurial activity in the manufacturing sector of Kosovo can be scaled up, and where the main constraints lie in this process. So, our contribution is to explore what can we learn from the case of Kosovo and which of our results have broader relevance for understanding growth of firms in the LDEs?

3 A short profile of Kosovo and referent countries

As one of eight federal units of the former Yugoslavia, Kosovo has been the most underdeveloped region – with high unemployment, poor economic infrastructure, poor education, etc. (Woodward, 1996; Ramet et al., 2017). The country’s economy was based on industrial activities such as mining of lead and zinc, lignite, iron-nickel and limestone quarries (World Bank, 1999).

In the 1999 war, Kosovo’s economy was severely damaged; economic losses were estimated at around DM 1.3 billion (Mustafa et al., 2008). The post-war economy consisted of a large number of informal small private trade and service firms, as well as a limited number of socially owned enterprises (SOEs) that had been severely damaged by the war (World Bank, 1999). There were around 600 SOEs and 75% of which were operational, with an asset value of about DM 192 billion (Mustafa et al., 2008). The vast majority of these firms have already been privatised.

Although from a low base, in recent decades the Kosovo’s economy has had a higher growth rate compared to the average growth of the Western Balkan countries. According to the World Bank (n.d.), Kosovo’s gross national income per capita has increased from \$1,940 in 2000 to \$4,340 in 2018. Despite this increase in per capita income, Kosovo remains one of the poorest countries in Europe. In 2018, the World Bank ranks Kosovo as lower middle-income economy.

According to the World Bank (2019), during 2009–2018, real GDP grew by an average of 3.5%. This growth was driven mainly by consumption, government spending and remittances. Kosovo’s economy still depends heavily on remittances (10%–15% of total GDP) and international assistance (7.5% of total GDP). The supply side of GDP shows a broad-based encouraging growth driven by the construction, trade and finance

sectors (IMF, 2018). Also, in recent years, economic growth has been supported by some export activities. However, Kosovo's export basket is predominated mainly by low value-added products, as about 65% of all exports come from base metals and mineral products. Exports of goods and services account for 19.6% of GDP, a percentage that has not changed for a long time (World Bank, 2015). In general, the country's economy depends on consumption, infrastructure investments and, in particular, remittances, as the country's production capacity, remain low.

In terms of economic structure, services constitute the largest sector. This sector is represented in GDP at about 50%, while compared to regional standards, the representation of the industry sector in GDP remains relatively small at 17.5% (manufacturing sector is only 11%), while the agricultural sector with 8.3% (World Bank, 2019). The internal sector of private business is underdeveloped and dominated by micro-enterprises. Micro firms (1–9 employees) constitute an absolute majority of firms, about 98.39% (KSA, 2018). The trade sector is characterised by a high share of imports (OECD et al., 2019). Despite the progress made in creating an SME-friendly operating environment, the country's performance in the Small Business Act (SBA) 2019 has been below the level of the Western Balkan countries (OECD et al., 2019). Overall, the country is characterised by macroeconomic stability that stems mainly from full euroisation, with a fiscal policy that respects fiscal rules, as well as a sound financial system that is dominated by the well-capitalised and profitable banking sector (IMF, 2018).

The Kosovo's efforts to join European Union (EU) integration also shape its development trajectory and context. In 2015 the country government signed a Stabilisation and Association Agreement. In 2018 the country was considered as one of the six countries of the Western Balkans able to join the EU. Kosovo is also part of the EU's Pre-Accession Assistance (IPA) Program, aimed at developing institutions that are in line with EU standards, as well as a market economy. However, according to the European Commission (2019), the country's progress in important areas such as governance, the functioning of democratic institutions and the fight against the informal economy has been slow and without any substantial progress.

As previously state, this paper focuses on the economy of Kosovo, but the empirical findings obtained from this economy are compared with four other economies, with different stages of development: Northern Macedonia as a middle-income country and three other EU countries: Estonia and Latvia and Slovenia. The aim is to examine whether business regulations and business institutions in different countries influence the dynamics of manufacturing firms.

The selection of comparative countries is based on three basic criteria: geographical proximity, similar economic structure (since they were all socialist countries), and population size. While Kosovo is geographically and historically quite different when compared to the two Baltic states, the similarities with Northern Macedonia and Slovenia are more obvious. For almost a century, these three countries were part of the former Yugoslavia. Despite this, throughout history the differences in economic development between the three entities have been large, not so much with Northern Macedonia as with Slovenia. Slovenia and the Baltic states are now members of the EU and as can be seen in Table 1, the differences are very large in almost all economic indicators.

Table 1 Kosovo and referent countries, macroeconomic indicators – 2017

	<i>EST</i>	<i>LVA</i>	<i>SVN</i>	<i>MKD</i>	<i>KOS</i>
Population – mil	1,317	1,961	2,065	2,074	1,816
GNIpc (\$)	17,750	14,630	21,660	4,980	4,340
GDP in \$ – mil	26,859.10	30,273.01	48,561.67	11,307.06	7,245.71
Unemployment rate	5.8	8.7	6.6	22.4	30.3
Informal economy (% of GDP)	18.2	22	–	17	31.0
Growth of GDP (annual %)	5.7	3.8	4.8	1.1	4.2
Firm/population – ratio	4.4	3.7	3.2	3.1	1.9
Active number of manufacturing firms	8,593	10,921	19,376	7,885	4,770
GDP	14	11	21	13	11

Source: World Bank, EUROSTAT and Kosovo Statistical Agency

3.1 *Institutional factors: what makes Kosovo different from reference countries?*

Institutional factors are seen to be important factors to the entrepreneurship activities. Thus, when looking across countries, some distinctive features of these factors in countries with different economic levels become increasingly evident. In the following sections, we present some of the most striking differences.

3.1.1 *Human capital*

Kosovo differs strikingly from comparator countries in a number of educational development indicators. For instance, as compared to comparator countries, the secondary and tertiary education attainment in the country is significantly lower. Moreover, findings suggest that Kosovo's education system is not aligned to the market needs (see, for example European Commission, 2019; OECD et al., 2019). Vocational Education and Training (VET), as vital factor in boosting entrepreneurship, is integrated into Kosovo's education system. However, compared to other reference countries, this system fails to address market needs in a number of areas, particularly in the preparation of technicians for the needs of the manufacturing sector. Previous empirical findings suggest that the stock of domestic human capital is important in increasing flexibility in production processes, as well as in increasing the ability to absorb new technologies (Keller, 1996).

3.1.2 *Infrastructure*

Prior empirical evidence suggests that, in general, LDEs are characterised by poor infrastructure, including roads, communication services, power system, and water supply (World Bank, 2019). In situations where infrastructure conditions are poor or unreliable, firms are forced to generate, for example, electricity themselves, or to ensure a regular water supply. A report issued by the European Commission (2019) states that compared to the countries of the region, Kosovo has made significant progress in a number of aspects – there is progress in improving roads, water supply, telecommunications, etc. Despite this, large gaps remain, especially in railway and energy infrastructure. In

particular, little progress has been made in ensuring a sustainable energy supply and difficulties remain in the water supply system as well.

3.1.3 Access to finance

Better access to external financial funds and the favourable cost of these funds remain essential for manufacturing firms. This is understandable, as through capital funds manufacturing firms adopt new technologies that enable them to align their business operations with global best practices. Kosovo has made significant progress in recent years, as access to external funds has improved and business interest rates have decreased significantly. However, compared to reference countries, both of these aspects represent a barrier for higher entrepreneurship. Our findings suggest that the interest rates on business loans in Kosovo still are significantly higher, especially when compared to reference countries. For Kosovo firms, debt instruments are the main source of capital funding. Unlike comparative countries that have established specific financial institutions that issue equity funds, firms operating in Kosovo do not have access to this type of financial fund. In 2016, Kosovo established the Kosovo Credit Guarantee Fund (KCGF), the purpose of which is to facilitate better access to credit for smaller firms. However, due to the limited portfolio (1,550 loans, worth €59 million), this fund does not meet the requirements of Kosovar firms (OECD et al., 2019). The situation is quite different in comparative countries (except northern Macedonia), where policy measures regarding better access to finance are much more advanced. For example, policymakers in Estonia have setup specific financial mechanisms and the focus has shifted from grants to loans and other state-backed financial guarantees (KredEx), or in the case of Slovenian firms, where access to credit is direct and easier through SID Bank, Slovenian Enterprise Fund, etc.

3.1.4 Institutional, political instability and governance

Previous empirical findings also suggest that one of the serious problems for LDEs remains the rule of law, corruption, organised crime, political instability, etc. (Brunetti et al., 1997; Klapper et al., 2010). An effective and conducive institutional and regulatory framework is key for higher level of entrepreneurship and business development. In World Bank reports on governance indicators, Kosovo performs approximately half of the EU reference countries, excluding Northern Macedonia. In particular, the results show that the country is characterised by a pronounced political instability, with weak control of corruption, organised crime, etc. Similarly, data provided by Gallup World Poll show that entrepreneurs in Kosovo and N. Macedonia, perceive their governments as highly corrupted and with unfriendly approach towards entrepreneurship activities.

3.1.5 Business regulations

World Bank reports on doing business indicators show that in terms of the efficiency of firm registration, Kosovo ranks among the best economies - better than some comparator countries, for example, Slovenia and Latvia. However, apart from the efficiency associated with registering a firm and the speed of obtaining bank loans, in all other business indicators, Kosovo is ranked worse. There are three important dimensions in which Kosovo performs very poorly: contract enforcement, trading across borders, and

resolution of insolvency. In this way, the property rights protection and also enforcement of contract can be problematic.

To summarise, the institutional instability and volatility can discourage entrepreneurship in manufacturing sector, and specifically large-scale, i.e., mass production techniques. Entrepreneurs may be discouraged because investing funds in fixed capital involves long-term commitments to specific products and certain production volumes. In situations where a substantial uncertainty about future demand conditions for these products exists, it makes more sense for entrepreneurs to choose production techniques that do not block enormous financial funds, and they often, instead, prefer to rely on labour (Lambson, 1991; Brunetti et al., 1997).

4 Data and methodology

The analysis is based on two datasets that cover a set of variables which explain properties and patterns of firm churn and firm survival. The first set of data was obtained from the KABR and contains information on newly established and exiting firms covering the period 2008 to 2017. The second dataset was obtained from the KSA and includes firms active in the country during the same period. It is worth noting that both datasets do not include companies that have been formed or created as a result of restructuring, merger or bankruptcy. The KABR data include 6,085 emerging manufacturing firms and 2,605 firms that exited the market during this period. Data for comparative countries are based on Eurostat information, which provides summary data for all indicators analysed. In addition, data related to North Macedonia were obtained from the state statistical agency.

Key indicators used in this study include the number of active firms, the number of newly born and exiting firms, the distribution of firms by size and number of employees, and the dynamics of firm survival for up to five years. These indicators were used to calculate the birth rates of new firms, exit rates, survival and hazard risk rates and the distribution of employment by type of firm. The definitions used in relation to business dynamics follow the international standard guidelines for the development of business demographic statistics [OECD-Eurostat, (2007), pp.12, 77].

The study focuses on firms operating in the manufacturing sector, NACE C10 C32. To achieve better international comparability, the study focuses on firms that employ at least one employee; those with no employees are excluded from the analysis.

The analysis process in this paper is conducted by applying the comparative method, which allows to identify and assess what are the similarities and differences in business dynamics between Kosovo and countries of reference. This method is used widely in all sciences, especially in social sciences (Lijphart, 1975; Ragin, 1989). The application of comparative methods can be especially useful in testing hypotheses related to the structure of market and firms operating in it, as well as institutional changes and to observe their impact on the nature, efficiency and magnitude of the creative destruction process [Bartelsman et al., (2009), p.1]. However, these ‘meta-analyses’, or as they are called ‘ex-post country study comparisons’ are by no means easy to be employed due to differences in measurements and methodologies across studies (Bartelsman et al., 2009).

In the section where we analyse the determinants of firm survival, we employ Cox regression (or proportional hazards regression) method (Cox, 1975). The aim is to investigate the effect of several variables upon firm survival rates. More about Cox regression method is provided in Appendix 1.

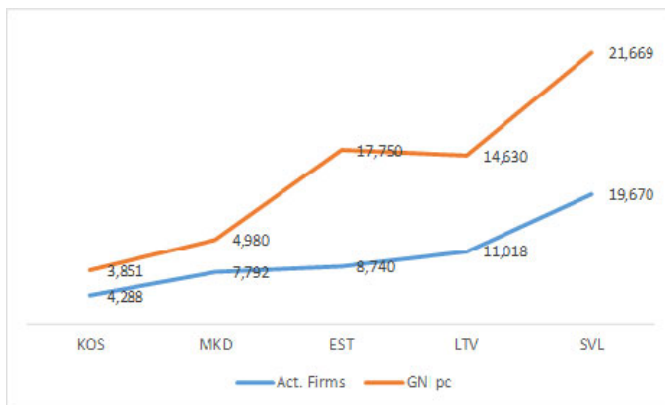
Although our data are relatively comprehensive, they have some limitations. For example, the data do not allow us to distinguish between the ways firms exit the market, that is, to distinguish between voluntary firm exit and bankruptcy, or to identify cases where even though firm ownership changes, the firm continues to do business under its original legal identity. However, according to KABR data, ownership changes are not frequent and as such do not constitute a serious limitation. Another shortcoming regarding datasets is the inability to identify merger cases and the fact that the only reliable measure of firm size is the number of employees.

5 Firm turbulence in manufacturing sector in Kosovo: cross-country comparison

This section discusses patterns of firm churn in Kosovo and presents comparisons with the four reference countries. The purpose of the investigation is to identify differences and similarities in the dynamics of firms operating in the manufacturing sector of Kosovo and comparative countries. The analysis covers a period of ten years, 2008–2017.

We found that the number of active manufacturing firms is substantially lower in Kosovo than in the reference countries including North Macedonia which is a middle-income economy. Figure 1 presents the relationship between number of active firms and gross national income (GNI) per capita. As can be noticed, the number of active firms is associated with the level of GNI pc – the higher the level of incomes, the greater is number of active manufacturing firms.

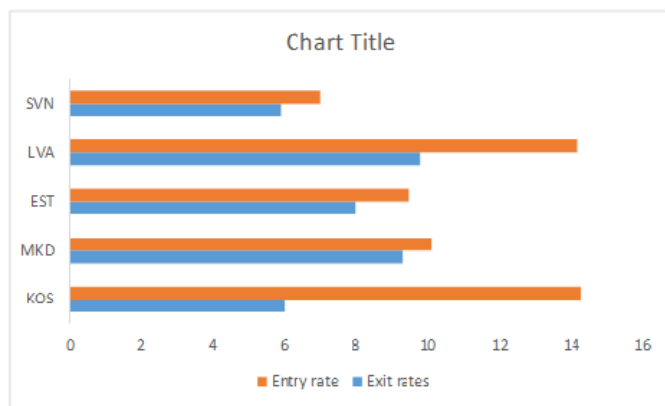
Figure 1 Number of active firms and GNI per capita by country income level (see online version for colours)



Source: EUROSTAT and World Bank, KSA for Kosovo and SSO for N. Macedonia

KABR data show that the number of firms that have entered the market for the first time during the period 2008 and 2017 has increased. However, compared to the reference countries, this number (6,085) is significantly smaller compared to the reference countries, such as Latvia with 10,435, or 10,543 in Slovenia. Kosovo also varies substantially in terms of the number of companies that exited market. Thus, while the number of firms that have left the Kosovo market is only 2,605, this number is much higher in the reference countries, in Estonia 6,040, 7,656 in Latvia and 10,859 in Slovenia.

Figure 2 Firm entry and exit rates, by country income level (see online version for colours)



Source: EUROSTAT and World Bank, KSA for Kosovo and SSO for N. Macedonia

The high rate of firms entering the market (14.2%), as shown in Figure 2, is more a result of the low base of active firms operating in the Kosovo market. The high rate of new entrants for Kosovo confirms the evidence presented in previous works on transition economies, which are characterised by high levels of firm entries and lower firm exits (Geroski, 1995; Bartelsman et al., 2009). Finally, the net entry rates for manufacturing firms (see Table 4 in Appendix 2) over the ten-year period show that this market is evolving and is characterised by two elements: first, a net entry rate in the last recent five years of the period which is double than in the first five years, and a significantly higher net entry rate in Kosovo than in the reference countries.

We observe, also, that Kosovan incumbent manufacturing firms are dominated by very small firms. Around 93.9% of total incumbent firms are with less than five employees, a figure that is significantly different in reference countries. For example, the number of firms employing 1–4 workers in Slovenia is 63% and in Estonia 57% – see Table 2. This pattern is also reflected in the employment contribution. In Kosovo, firms with less than five employees, 5–9 employees, and more than ten employees account for 63%, 14.5% and 23.3% of total employment, respectively. Findings are significantly different in developed countries, where the largest contribution to employment comes from firms employing more than ten workers. For example, in Estonia 5.8% of workers working in firms with less than five employees represent 57.1% of total firms. Meanwhile, firms with more than ten employees account for 88.4% of the total production workforce, but only 27.4% of the firm's total population – see Table 2. Similar figures are obtained in other reference countries.

Table 2 Firm breakdown in terms of size and the number of persons employed in manufacturing sector, 2017

	<i>EST</i>	<i>LVA</i>	<i>SVN</i>	<i>MKD</i>	<i>KOS</i>
<i>Active firms: percentage of size-class in total population</i>					
1–4 employees	57.1	59.8	62.8	80.4	93.9
5–9 employees	15.5	15.8	15.3		4.99
10+ employees	27.4	24.4	21.9	19.6	1.09
<i>Firm birth: percentage of each size-class in total population</i>					
1–4 employees	90.1	83.4	88.9	-	94.7
5–9 employees	6.2	9.7	8.2	-	4.34
10+ employees	3.7	6.9	2.9	-	0.96
<i>Person employed: percentage of each size-class in total population</i>					
1–4 employees	5.8	8.2	6.9	15.6	62.2
5–9 employees	5.8	6.8	5.4		14.5
10+ employees	88.4	85.1	87.7	84.4	23.3

Source: EUROSTAT and World Bank, KSA for Kosovo and SSO for N. Macedonia

The findings for sub-sectoral composition reveal some interesting patterns. More than 50% of total manufacturing firms in Kosovo operate in two sectors: food and beverages, tobacco, and non-metallic mineral products (C10 and C12). Food, beverages and tobacco account for 31% of all manufacturing firms and 30.8% of manufacturing employment; non-metallic mineral products accounts for 21.7% of firms and 21% of total employment – see Table 5 in Appendix 2. These percentages are very different in the comparator countries and employment is spread more evenly across all subsectors (Table 2). For instance, the highest proportions of active enterprises are in fabricated metal products – Slovenia 23.4% and Estonia 17.1% – while the highest employment shares are in wood and wood products in the case of Estonia and Latvia (16% and 18%), and basic metals and fabricated metal products in the case of Slovenia (23.37%).

From the findings presented above it can be concluded that in the last five years the firm churn in manufacturing sector has had an upward trend. Among the various reasons for this trend, three stand out. First, over the last few years, the barriers to firm entry have reduced significantly. This is confirmed by World Bank reports, which rank Kosovo among top 40 economies for doing business indicators. Second, the barriers to exit have also been lowered, which has resulted in the greater exit of inefficient firms. Third, the weight of the manufacturing sector in the Kosovo economy has increased – by almost 4% over the ten years. In 2008, the weight of manufacturing sector in the economy was 9.9%, and this had increased to 13.9% in 2017. These results confirm previous findings that net entry (entry minus exit) is less important than gross entries and exits generated and this applies, particularly, to the case of Kosovo. This pattern suggests that the entry of new firms is driven largely by a search process rather than augmenting the number of competitors in the market (Audretsch, 1995).

To sum up, these results show that, in many respects, the manufacturing sector in Kosovo can be compared to that of reference countries. However, some particular patterns are idiosyncratic for Kosovo. First, the number of incumbent firms in Kosovo is

almost half the number in the reference countries.¹ Second, the breakdown of enterprises by size classes shows that all countries are dominated by very small firms – see Table 2 – but that in Kosovo, the largest percentage of incumbent firms consists of firms that employ less than five workers. Also, the employment rate in small enterprises is higher in Kosovo than in the reference countries.

Third, the results for sub-sectoral composition show that incumbent manufacturing firms are concentrated on two subsectors in Kosovo. This might be related to technological factors. Items such as baked goods, beverages, or non-metallic mineral products such as sand, clay, limestone, marble and gravel can be fabricated using ‘cottage technology’, resulting in little incentives to consolidate production at some large plants and at the same time incur additional distribution costs.

There is a consensus among researchers that firms in LDE enter small and only few of them grow with age (Hsieh and Klenow, 2014); they remain small throughout their life cycle (Schoar, 2010; Decker et al., 2014). Kosovo is typical of this pattern. The small firm size can be explained by the firms’ decision to avoid excessive regulations (De Soto, 1989) and taxation. Larger firms are more likely to attract scrutiny from tax administrators (Gauthier and Gersovitz, 1997).

The pervasiveness of small firms in the LDEs can also be explained by other factors. For example, poor market supply of unskilled labour (Tybout, 2000), unfavourable credit market conditions and lack of long-term finance that creates incentives to save on fixed assets. Another important aspect that reflects the lack of capacity of firms to grow has to do with organisational capacity and management competencies. Evidence shows that most firms in LDE are family owned, which are characterised by poor managerial and organisational skills (Riinvest Institute, 2015; Sahiti, 2019). Lack of trust in institutions and weak rule of law can prevent family-owned firms to delegate tasks or hire more skilled and experienced managers. Adequate organisational capacities and managerial competences are considered a prerequisite for growing the firm beyond a certain size (Akcigit et al., 2016). Last but not least, political instability, absence of rule of law, can discourage entrepreneurs from creating large enterprises and/or committing large and long-term investments. Due to uncertainty, they may feel more confident in choosing production techniques that do not require large financial resources.

6 Survival patterns in Kosovo’s manufacturing firms: cross-country comparison

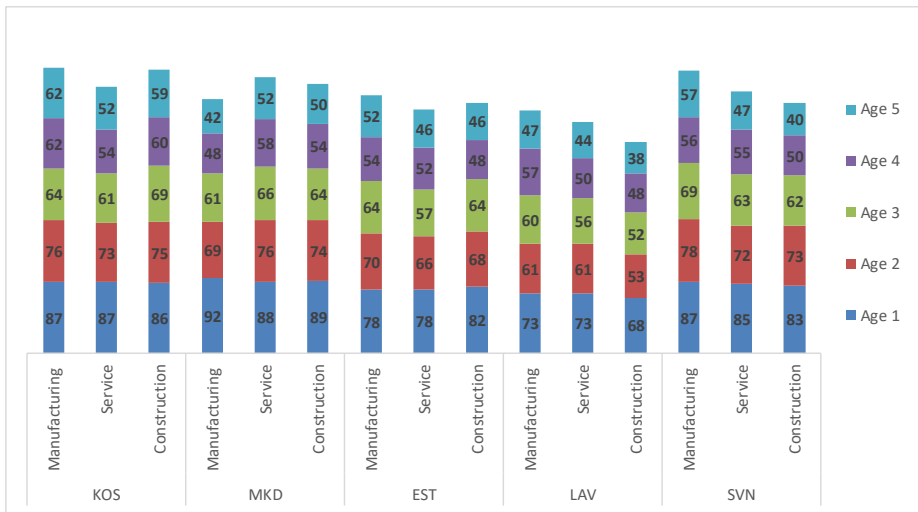
The next section analyses the life cycle of new manufacturing firms, as well as the likelihood that they will survive in the future. The data provided by KABR enable us to track over time the new firms entering the market, and to learn how many of them manage to survive from one year to the other. Data provided include firms born in 2013 and how many of them survived until 2017. A firm born in year t is considered to have survived year $t + 1$ if this firm shows that it is still active in the dataset.

Figure 3 compares survival rate patterns between Kosovo and other comparative countries, for the three sectors of economy, manufacturing, construction and services. The results show that for all countries (except N. Macedonia) firms operating in the manufacturing sector enjoy more prospects for survival than in other sectors. This is

especially evident for Kosovo, where in cases when a firm survives one year, the prospect of survival increases in the coming years.

A closer look at these patterns, Figure 3 reveals that for those firms that manage to survive the market until the third year, the probability of survival does not change significantly. More specifically, similar to Estonia, about 64% of firms in Kosovo manage to survive the market after the third year, but the survival rate is lower than in Slovenia by 69%, and higher than N. Macedonia and Latvia for 3% and 4% respectively. After the third year, about 62% of firms can be expected to survive, a pattern that is markedly different from the reference countries. Survival prospects increase especially after the fifth year, where the difference is higher than 20% and 5% as compared to N. Macedonia and Slovenia, respectively. Various reasons may be behind such differences, including different orientation of firms in the market, business environment in which they operate, etc. (Klapper et al., 2010). This pattern is in line with one of the stylised facts presented by Bartelsman et al. (2009), who show that firms operating in transition economies, similar to Kosovo, tend to experience better survival prospects. This finding confirms the hypothesis that new entrants enjoy a relatively shorter period of competition – especially in emerging, sparsely populated markets.

Figure 3 Firm survivals in manufacturing, service and construction (age 1–5), 2017 (see online version for colours)



Source: Eurostat for Eu countries, KSA for Kosovo and SSO for N. Macedonia

7 Survival determinants in Kosovo’s manufacturing sector – regression results

We examine post-entry survival performance of manufacturing firms in Kosovo based on survival determinants. Our explanatory variables are firm size, age, legal ownership, and location. The dependent variable is the hazard rate or hazard function. Kalbfleisch and Prentice (1980) define hazard function as the chance of a firm to exit the market at time t ,

conditional on a vector of the covariates X . The statistical model used in this study is Cox regression (proportional risks), which allows us to investigate the effect of each explanatory variable on the firm's exit from the market. More about the Cox regression method is provided in Appendix 1.

The results in column 2 show an inverted U-shaped relationship between hazard risk (i.e., conditioned by firm failure risk), age, and firm size. In terms of the age of firms, the results suggest that the degree of risk of firm failure reaches its peak in the second year of its life, and then this risk tends to decrease. These results confirm the hypotheses called 'liability of adolescence', which means that newly born firms survive by relying on their initial endowments (Brüderl and Schussler, 1990; Fichman and Levinthal, 1991). After this period, failure rates tend to peak due to the reduction of these initial endowments, that is, the chances of survival tend to decrease since only the best firms resist competition in the market.

Regarding the firm size variable, the results show that firms with one employee face a lower risk of failure compared to firms that employ two to nine employees. The risk of failure seems to be particularly high for firms employing 1–5 employees; while companies with more than nine employees are more likely to enjoy better survival prospects. However, the risk of failure is not statistically much different compared to single-employee firms. This result is consistent with the view of self-employment as a survival alternative in economies with high unemployment rates, which promotes subsistence. Subsistence can be the main impetus in creating firms with a small number of employees. The reasons why firms with larger employees enjoy greater survival prospects may be different. One of the most frequently mentioned factors is related to the financial capital. It is natural that for any entrepreneur who intends to setup a large firm, first thing to do is the market research and also holding lengthy discussions with potential investors who may be interested in borrowing the funds required for the start-up (Kuntchev et al., 2013). This is not the case for smaller firms, in which the financial requirement to establish a firm is significantly lower.

In terms of the impact of legal structure on survival prospects, the results show that, after controlling other variables, limited liability firms enjoy a higher probability of survival compared to their counterparts, including companies owned by foreigners. Previous empirical results confirm that firms that apply better organisational and managerial skills also have a higher survival probability (Bloom et al., 2013). Our findings also show that firms owned by foreign entrepreneurs have a lower risk of failure compared to sole proprietorship and general partnership. Previous empirical evidence regarding the effects of foreign ownership on survival prospects is mixed. On the one hand, Görg and Strobl (2003) and Bernard and Sjöholm (2003) report respectively higher risk prospects for Irish -majority foreign-owned firms and Indonesian foreign firms. On the other hand, other authors such as Geroski et al. (2012) report that newly formed enterprises with local capital are more exposed to the risk of failure compared to those with foreign ownership. Our findings fall between these results as we find an intermediate exit risk for newly established foreign companies in Kosovo.

Table 3 Survival determinants in Kosovo's manufacturing sector – regression results

<i>Dependent variable: hazard rate</i>	[1]	[2]	[3]
	<i>Cox proportion hazard model</i>	<i>cloglog model (discrete-time equiv. to [1])</i>	<i>clog frailty model</i>
Firm size (one employee omitted)			
[2–4]	1.07*** [0.003]	1.12*** [0.002]	1.09*** [0.001]
[5–9]	1.48*** [0.001]	1.43*** [0.003]	1.39*** [0.000]
[10–19]	0.82 [0.341]	0.84 [0.329]	0.85 [0.334]
[20+]	0.79 [0.359]	0.84 [0.355]	0.86 [0.369]
Ownership (limited liability omitted)			
Sole proprietorship	3.63*** [0.000]	3.71*** [0.000]	3.69*** [0.000]
General partnership	4.15*** [0.001]	4.23*** [0.000]	4.24*** [0.000]
Foreign company	2.07 [0.000]	2.11 [0.000]	2.06 [0.000]
Region (Prishtina omitted)			
Prizren	1.40*** [0.002]	1.39*** [0.003]	1.42*** [0.001]
Gjilan	0.91*** [0.029]	0.91*** [0.029]	0.91*** [0.028]
Peja	1.63*** [0.000]	1.67*** [0.000]	1.68*** [0.000]
Mitrovica	1.29*** [0.000]	1.30*** [0.000]	1.32*** [0.000]
Year dummies (year 2010 omitted)			
Year 2011	1.25*** [0.002]	1.27*** [0.002]	1.28*** [0.002]
Year 2012	1.16*** [0.022]	1.16*** [0.023]	1.16*** [0.022]
Year 2013	1.29*** [0.001]	1.29*** [0.000]	1.28*** [0.001]
Year 2014	1.20*** [0.002]	1.21*** [0.004]	1.23*** [0.005]
Year 2015	1.29*** [0.000]	1.30*** [0.000]	1.32*** [0.000]

Notes: p-values using robust standard errors in brackets.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: KBRA

Table 3 Survival determinants in Kosovo's manufacturing sector – regression results (continued)

<i>Dependent variable: hazard rate</i>	[1]	[2]	[3]
	<i>Cox proportion hazard model</i>	<i>cloglog model (discrete-time equiv. to [1])</i>	<i>clog frailty model</i>
Firm age dummies (NO omission)	NO		
One year old		0.006*** [0.001]	0.006*** [0.001]
Two years old		0.011*** [0.001]	0.011*** [0.000]
Three years old		0.006*** [0.001]	0.006*** [0.001]
Four years old		0.003*** [0.001]	0.004*** [0.001]
Five years old		0.004*** [0.001]	0.004*** [0.001]
Six years old		0.001*** [0.000]	0.002*** [0.000]
Log likelihood	-63,711.35	-23,721.45	-23,721.45
No. of firms	6,085	6,085	6,085
No. of observations	22,262	22,262	22,262

Notes: p-values using robust standard errors in brackets.

***p < 0.01, **p < 0.05, *p < 0.1.

Source: KBRA

Regarding the fourth variable, that related to location, the results show that the location or region in which an enterprise operates matters. In our case, we find that firms operating in capital city of Pristina enjoy better survival prospects. The lowest risk failure after Prishtina enjoys firms that operate in the Gjilani region, followed by those operating in Peja and Prizren. Firms operating in the Mitrovica region enjoy the lowest survival probabilities. These findings are in line with findings from previous studies which predict higher survival prospects for firms operating in and near metropolitan areas (Fotopoulos and Louri, 2000). Previous findings indicate that firms operating near metropolitan areas have several advantages, as they can benefit from external economies coming from proximity to specialised suppliers, knowledge spill-overs and the development of specialised labour markets (Dunne et al., 1988). On the demand side, the demand potential for their products is greater as compared to firms operating outside the metropolitan area. Both forces are mutually reinforcing. With regard to dummies of the year, they account for the change in the risk of firm failure over time. Dummies are common for each firm that exits in a particular year, and capture the phases of business cycles.

8 Conclusions

This paper presents patterns of the dynamics of firms in the manufacturing sector of the Kosovo economy. The findings from this economy are compared with four other countries with different economic levels. This topic is especially interesting and important for LDEs, because successful entrepreneurship and successful manufacturing sector are essential for increasing employment, fostering the competitiveness of the national economy, and improving social welfare.

Our findings show that, during the period 2008–2017, the turbulence of Kosovo manufacturing firms has had an upward trend. New entrants and firm exit recorded a higher degree of turbulence over time, as compared to referent countries where firm turbulence has been more stable. This paper has made a number of observations about the stock of incumbent firms, entry, exit and firm survival prospects. First of all, results show that the stock of incumbent manufacturing firms in Kosovo is significantly lower than comparator countries. Second, this economy is abundant of very small manufacturing firms, a pattern that is remarkably different in other referent countries. Third, differences in firm turbulence are reflected in the patterns of firm survival likelihood, where firms in Kosovo enjoy greater survival prospects, provided that they survive up to three years. Fourth, the presence of these patterns leads to the lack of dynamism, which is reflected to the inability of firms to grow. The very high incidence of small firms in the stock of incumbents, entry rates, together with high survival rates is compatible with the existing empirical literature which supports the notion that manufacturing firms in less developed economies are relatively stagnant and inefficient.

To conclude, findings suggest that Kosovo is a vibrant economy which has a capacity to sustain itself and has the capability to look after itself with entrepreneurial activity in its core. Some contribution may be made by subsistence entrepreneurship or necessity-driven entrepreneurship, but certainly a lot of it is possibly a stage in opportunity-driven entrepreneurship which can benefit from innovation and sustainability and fits within upper-middle income countries. But, in order to create a business environment where opportunity-driven entrepreneurship blooms, government policies should be focused in a range of factors, such as creating a fair competitive environment, improving access to financial funds, aligning the education system with market needs, etc. To alleviate or even solve these issues, significant investments are required, both public and private. The following section provides some policy recommendations.

9 Policy recommendations

There are many key policy choices that policymakers should design and implement to offer a business support for young and innovative manufacturing firms in Kosovo. The recommendations of this paper provide a way forward. Policymakers in Kosovo should focus on six types of interventions.

First, the establishment of a regional innovation systems and the establishment of favourable regional entrepreneurial policies. This study highlights the fact that the location in which firms operate is important. Regional innovation systems and entrepreneurial policies need to address systemic failures arising from a lack of understanding that the learning processes required for innovation are the result of

multiple interactions in systems involving different agents and institutions. Such interactions may be, for example, between universities and industries, which in the case of Kosovo do not even exist. There is a wide range of other mechanisms that can support the creation and expansion of efficient and innovative enterprises. Some of them may be technological parks, technological centres; or the provision of services by innovation centres or innovation agencies.

Second, the outcomes presented in this paper show that the number of firm exits in Kosovo is significantly low. Thus, policymakers should create policies that hastens the exit of less efficient firms and fosters the growth of more innovative ones. This is essential in order to speed up the reallocation of resources from less productive to more productive firms. This would require a substantial improvement of competition policies, lowering barriers to the entry of new firms, and in the same time improve the economy's institutional quality and regulatory structure. Other reforms would include bankruptcy laws and competition legislation. In addition, increasing the tax systems transparency, substantial improvement in rule of law, could help efficient firms to reduce their insecurity in increasing the scale of their operations.

Third, there is empirical evidence which shows that flexibility in the processes of production and the ability to absorb new technologies are linked with the quality of human capital (Evenson and Westphal, 1995; Keller, 1996). Thus, policymakers can help firms and industries by aligning the education system with market needs, specifically addressing the scarcity of technicians and skilful workforce for production processes. In addition, improving the quality of physical infrastructure and logistics is probably the most effective way of supporting the growth of small firms. This is so because better infrastructure improves the market connectivity and increases competition between firms; it enables firms to specialise and achieve larger economies of scale.

Fourth, open up financial system. As this study highlights, one of the most serious constraints on firm growth is related to the cost and access to finance. Therefore, to address this constraint, policymakers need to open up the domestic financial market and enable other banks to enter the domestic financial market more easily. This may require reforming the financial system, improving the availability of specific sources of finance such as venture capital and private equity. In this context, the liberalisation of the conditions for entry of new banks in the financial system of Kosovo would further increase competition in the banking sector and potentially reduce the cost of credit. Creation of a business bank with a remit to provide loans with favourable terms to small firms endowed with innovative and exporting capacities would produce significant results in the objective function.

Fifth, the already existing background for entrepreneurial activity in Kosovo is encouraging in the sense that entrepreneurship policies can be implemented proactively and with desired outcomes since many firms stay in the market beyond the age of 5. These policies should also have a long-term vision to encourage the entrepreneurial proactivity to embrace digitalisation and greening of the manufacturing sector.

Sixth, strengthening the organisational skills and management practices of the private sector. As we show in this study, firm ownership matters because limited liability companies and firms owned by foreign entrepreneurs have a lower risk of failure. On the other hand, the literature states that these firms apply better organisational and managerial skills (Bloom et al., 2013). Thus, policymakers in Kosovo must strive to ensure that entrepreneurs possess necessary business skills, market intelligence, technology, necessary infrastructure and finances they need to create innovative and

growing firms. Policymakers need to create institutions that can work proactively with firms to build better managerial skills, organisational capabilities, and create the conditions to export and also connect with regional and global markets.

All of these policies are particularly important for LDEs, in terms of fostering small firms to grow and moving the whole country towards an innovation-based economy.

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Notes

- 1 The smaller number of active firms in Kosovo may reflect the size of the informal economy, estimated at around 31% of GDP (European Commission, 2019).

Appendix 1

Cox proportional-hazards model

To examine the determinants of survival rates of manufacturing firms in Kosovo, a multivariate analysis of the hazard rate was carried out. The dependent variable in the regression analysis is hazard rate. The hazard rate is the probability that a firm exits the market in a moment t conditional upon survival up to that time t , and also conditional on a vector of covariates X , which may include both time varying and time-constant variables:

$$h(t; X_i(t)) = \lim_{dt \rightarrow 0} \frac{\Pr[t \leq T] < t + dt \setminus T \geq t, X_i(t)}{dt}$$

where T is a non-negative random variable (duration, i.e., survival time since birth), which in this study is assumed initially to be continuous. The dependent variable (hazard rate) is conditioned on four explanatory variables: firm's size, legal structure, geographic location, and sector in which it operates. Therefore, the goal of analysis is to examine whether a specific variable shapes the risk of a firm to exit from market, or alternatively to survive. Each firm i has a corresponding (latent) duration that is observable only if the event takes place during the observation window. In case when this event does not occur, then the observation is right-censored.

In this study, we have started with the estimation of the semi-parametric proportional hazards survival model proposed by Cox (1975). This model allows to measure the relationship between hazard risk or function (dependent variable) and the risk the impact of the above-mentioned explanatory variables. This estimation equation can be written in the following formula:

$$h_{i(t)}(t) = h_0(t) \exp\left(\sum_{i=1}^p \beta_i X_i'\right) \quad (2)$$

where $h_0(t)$ is the basic risk and includes the common risk that all firms face at a certain age (i.e., when $X_i = 0$). Thus, the hazard risk faced by an individual enterprise is a function of the risk (risk of failure) faced by any enterprise at a given age (base risk h_0), modified by a range of explanatory variables X_i , which proportionally shift the function of the baseline. The relationship between explanatory variables and survival depends mainly on some vectors of β parameters (Landau and Everitt, 2004). In the model used in this paper, the effect of each explanatory variable is a constant parallel shift of the underlying risk, a risk which is estimated by all those enterprises that survive up to a specific period. In our analysis we further include dummies of the year. The aim is to control the evolution of the risk of firms to fail over time. Parameters are consistently estimated by the partial likelihood method of estimation (Cox, 1975).

In addition, given the nature of the data we possess, in this paper we also use discrete survival methods. Consequently, although the exit of the enterprise from the market can occur at any given point in time, (the stochastic process occurs at a continuous time), the database we possess provides only annual information. Thus, we have grouped the survival times of the enterprises in discrete time intervals of only one year. In order to evaluate the impact of explanatory variable, we have used a complementary log-log

model (cloglog), a model which is a discrete time version of the Cox proportional hazard model. Specifically, assuming that the discrete degree of risk follows a complementary log-log distribution (Prentice and Gloeckler, 1978) and allows unobserved individual heterogeneity, the valuation equation takes the following form:

$$c \log \log [1 - h_j(X|\nu)] \equiv \log(-\log[1 - h_j(X|\nu)]) = \beta'X + \gamma_j + u \quad (3)$$

where γ_j is the base interval risk and summarises the pattern of dependence on duration (i.e., firm age). We also include firm-level random effects by means of an error term $u = \log(\nu)$ that is assumed to be normally distributed with zero mean and variance σ^2 . This is the so-called frailty term and enables controlling for unobserved individual heterogeneity. In our analysis we have tested whether the variance of the frailty term is statistically different from zero. I mean that if this variance was not statistically different from zero, then a non-frailty model would be the preferred specification. To attain efficient estimators and unbiased standard errors, we have applied the Hubber-White sandwich or robust estimator.

This term is called frailty which enables the control of unobserved individual heterogeneity. For the purpose of our analysis, we have tested whether the variance of frailty is statistically different from zero. It means that if this variance was not statistically different from zero, then the model of non-frailty be the preferred specification. In order to achieve efficient estimators and unbiased standard errors, we have applied Hubber-White sandwich or robust estimators.

Appendix 2

Table 4 Firm turbulence rate in Kosovo's manufacturing sector (2008–2017)

<i>Manufactures (CNAE 15-36)</i>							
<i>Year</i>	<i>Active</i>	<i>Birth</i>	<i>Death</i>	<i>ER (%)</i>	<i>XR (%)</i>	<i>TR (%)</i>	<i>NER (%)</i>
2008	4,065	546	111	13.4	2.7	16.2	10.7
2009	4,103	501	113	12.2	2.8	15.0	9.5
2010	4,112	511	132	12.4	3.2	15.6	9.2
2011	4,246	534	143	12.6	3.4	15.9	9.2
2012	4,598	775	153	16.9	3.3	20.2	13.5
2013	3,736	605	145	16.2	3.9	20.1	12.3
2014	4,052	728	145	18.0	3.6	21.5	14.4
2015	4,528	666	152	14.7	3.4	18.1	11.4
2016	4,674	788	194	16.9	4.2	21.0	12.7
2017	4,770	715	130	15.0	2.7	17.7	12.3

Note: ER represents the entry rate, XR is the exit rate, TR is the turbulence rate (= ER + XR) and the NER represents the net entry rate (= ER – XR).

Source: KSA

Table 5 Proportion by the number of firm and labour employed, 2017

	EST		LVA		SVN		MKD		KOS	
	Firms	Empl.	Firms	Empl.	Firms	Empl.	Firms	Empl.	Firms	Empl.
Manufacturing - total	9.44	13.58	11	19.89	12.8	8.57	22	31	30.8	30.8
Manufacture of food products; beverages and tobacco products	14.16	9.69	17	10.21	6	3.05	15	2.3	6.3	6.3
Manufacture of textiles and wearing apparel	1.08	0.95	0.77	0.30	0.75	1.76	1.95	0.6	1.7	1.7
Manufacture of leather and related products	14.57	16.13	18.2	20.73	10.59	4.26	5.57	3.4	4.5	4.5
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	5.50	3.99	5.29	4.12	6.97	4.28	8.02	3.8	4.2	4.2
Manufacture of paper and paper products; printing and reproduction of recorded media	0.05	1.16	0.13	0.05	0.02	0.01	0.1	0.7	0.2	0.2
Manufacture of coke and refined petroleum products	1.65	2.42	2.4	4.29	1.25	7.10	1.46	2.5	3.2	3.2
Manufacture of chemicals and chemical products; basic pharmaceutical products and pharmaceutical preparations	2.49	3.59	2	2.50	5.03	7.73	6.01	10.6	9.3	9.3
Manufacture of rubber and plastic products	3.35	4.12	4	4.69	2.82	3.46	4.22	21.7	16.4	16.4
Manufacture of other non-metallic mineral products	17.2	13.05	10.5	9.90	23.37	21.59	11.86	15.4	13.3	13.3
Manufacture of basic metals and fabricated metal products, except machinery and equipment	3.07	11.02	2.7	4.25	3.76	13.06	2.16	1	1	1
Manufacture of computer, electronic and optical products; manufacture of electrical equipment	2.25	3.54	1.8	3.08	3.84	7.19	1.9	0.7	0.4	0.4
Manufacture of machinery and equipment n.e.c.	1.95	3.25	1.4	3.14	1.55	7.51	0.63	0.4	0.3	0.3
Manufacture of motor vehicles, trailers, semi-trailers and of other transport equipment	14.4	9.41	12.9	7.90	10.19	5.29	15	5.2	7.7	7.7
Manufacture of furniture; other manufacturing	8.84	4.09	9.4	4.94	11.55	5.13	3.6	0.7	0.7	0.7
Repair and installation of machinery and equipment										

Source: EUROSTAT and World Bank, KSA for Kosovo and SSO for N. Macedonia