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Regulatory and Institutional Factors Driving Small Firms' Growth in Central Asia

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Abstract

The purpose of this study is to investigate how the institutional environment and governance affect the growth of small firms, in terms of employment, in Central Asian economies, particularly Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. For this study, different data sources, including EBRD-EIB-WB Enterprise Surveys, World Development Indicators, and World Governance Indicators, were employed, and to compare and contrast business governance indicators across countries descriptive analyses were performed, and the outcome of regression analysis was provided. Despite the recent improvements in the legal, administrative, and regulatory environment for business, according to the findings of this study, in Central Asian economies, there are obstacles to the growth of firms in the private sector. Small firms perceive tax (14.22% of firms in the sample, 27.78% of firms in Tajikistan), and competition in the informal sector (11.75% of firms in the sample, 21.58% in Kyrgyzstan) as the biggest obstacle to growth. In countries, where control of corruption, and the rule of law are strong, governance and private sector regulations are effective, the political situation is stable, and small firms report growth.

Keywords: *small firms, firm growth, business regulation, institutions, Central Asia*

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1. Introduction

In the relevant literature, debates around the relationship between the small and medium-sized enterprises (SME) sector and economic growth are based on the premise that SMEs are the 'engine' of economic growth (Beck & Demirguc-Kunt, 2006), and the emerging private sector for transition economies (Hallberg, 2000). The most referred channel through which SMEs affect economic development is employment. Since smaller firms are relatively labor-intensive than their larger counterparts (Khalmurzaev, 2000), SME growth decreases the unemployment level (Ayyagari, Demirguc-Kunt, & Maksimovic, 2014; Beck, Demirguc-Kunt, & Levine, 2005), contributes to employment across countries (Ayyagari, Demirguc-Kunt, & Maksimovic, 2011). In most developing countries even after controlling for firm age, small firms have high growth rates, in terms of sales, and they create the largest share of jobs (Ayyagari et al., 2014).

Moreover, there is a consensus in practice and academia on the fact that small firms face more obstacles to growth than their larger counterparts. The recent so-called "obstacles or barriers to growth" literature investigating the effect of the external business environment on entrepreneurial growth maintains that SME growth is impeded by underdeveloped financial infrastructure and business environment (Leitner, 2016; Hashi & Krasniqi, 2011; Ayyagari et al., 2007; Beck & Demirguc-Kunt, 2006). Although entrepreneurs claim that access to finance is a growth-constraining obstacle for small business enterprises and start-ups, as was found by Saeed (2009) and Nizaeva and Coskun (2021), there is no significant relationship between financial constraint and growth. Properly functioning institutional and regulatory environments, particularly property rights protection, affect the functioning of access to finance of private business enterprises (Beck et al., 2008). Therefore, institutional factors and regulations, including political instability, corruption, the court system and rule of law, and administration of business licensing and permissions shape the environment for the development of entrepreneurship. Xheneti and Bartlett (2012) claimed that in the case of post-communist transition economies because of political instability, legal inconsistency, and high cost of compliance, the regulatory environment is the main obstacle to the growth of business enterprises. In Central Asia, informal business relationships negatively affect the growth of new-born small firms to reach their optimal size (Makhmadshoev et al., 2015).

Given the role of entrepreneurship in the economic development of Central Asian countries, this study provides contributions of great importance to relevant literature and policymakers. Since there is no study that investigates the institutional and regulatory environment as a determinant of firm growth in the case of the region, this research shed light on the effect of business infrastructure on the development of the private sector.

For the purpose of this study and due to the lack of research, in addition to relevant findings of peer-reviewed papers, Transition Reports of EBRD, and Doing Business Reports of the World Bank Group were reviewed. By employing different data sources (EBRD-EIB-WB Enterprise Surveys, World Development Indicators, World Governance Indicators), in order to compare and contrast business governance indicators, cross-country descriptive analyses were performed, and the outcome of regression analysis was provided. It was found that despite the improvements and modernizations in the legal and regulatory environment of businesses, in Central Asian economies, the legal and regulatory framework is an obstacle to the growth of firms in the private sector.

The remaining part of the paper is as follows. Section two reviews the relevant literature. Section 3 describes the data sources, sample, descriptive statistics, and analysis methodology. Section 4 interprets the findings. Sections 5 and 6 discuss the conclusion and limitations of the research.

2. Literature review

There is a lack of research investigating the private sector and entrepreneurship in Central Asian economies. Reasoning to findings by Khalmurzaev (2000), which claims that the obstacles faced by Central Asian SMEs are generally the same in other transition economies, including lack of capital, difficulties in access to external finance, weak managerial skills, inefficient legislative and administrative framework, burdensome taxes, and physical infrastructure, for the purpose of this paper, the papers that explored the entrepreneurship, the SME sector across developing countries, including Central Asian economies were reviewed. The economies in Central Asia that have experienced the most severe problems of tax evasion are the Kyrgyz Republic and Tajikistan (Bitzenis & Nito, 2005).

In entrepreneurship scholarship, the positive relationship between the institutional environment and entrepreneurial activity that is driven by opportunity has been evidenced (Urbano et al., 2020). In low-quality institutions, weak rule of law, corruption, and other forms of inefficient management encourage rent-seeking behavior that increases the cost of doing business. Therefore, such institutional structures prevent the development of entrepreneurship and limit the growth opportunities of small firms. According to Sendra-Pons, Comeig, and Mas-Tur (2022), the transition of countries' institutional model, given that different aspects of the institutional environment affect the private sector, is another important factor. They emphasized that low levels of regulatory quality and government effectiveness take precedence over the presence of other institutional factors.

In addition, the growth of small firms has been associated with various factors, including access to finance, individual entrepreneur characteristics, firm characteristics, societal norms, macroeconomic indicators, cultural dimensions, and others. It has been evident that in transition economies developing entrepreneurial

self-efficacy and confidence in entrepreneurs may play an important on firm performance (Luthans & Ibrayeva, 2006). In Central Asia, a low cultural environment is considered a significant barrier to doing business (Göleç & Maksudunov, 2019). Although social networks are positively related to starting a business, Nikolova and Simroth (2013) found that such networks are not sufficient for the success of women-owned businesses. For this paper, a review of the literature is limited to regulatory and institutional contexts of small firm growth.

Due to its inheritance from the command economic system, the business environment in transition economies has not been favorable for the development of the SME sector and less conducive to entrepreneurship (Smallbone & Welter, 2001; Bartlett & Bukvic, 2001; Krasniqi, 2007). SMEs in Central Asia are more impeded by institutional obstacles, including inefficient legislation on property rights, absence of information sharing platforms, unsatisfactory regulative environment, lack of managerial and marketing skills, burdensome taxes, and other factors than their counterparts in developed countries. Bartlett and Bukvič (2001) evidenced that in developing countries, the key barriers for small business development are unsatisfactory institutional environment, including bureaucracy and external financing constraints in terms of the high cost of capital.

The relevant literature found that a better regulatory environment was associated with higher firm growth (Nizaeva & Coskun, 2019); where an inefficient regulative environment leads entrepreneurs to pervert regulations and move to the informal sector (Hashi & Krasniqi, 2011). In the contexts of post-communist developing economies, due to their instability, inconsistency, and high costs of compliance, the regulative environment has mainly acted as an obstacle to business growth (Xheneti & Bartlett, 2012). In developing countries, the inefficient legislative environment may adversely affect the business environment both formally through regulations and rules, and informally through interpersonal relations and political connections, which may create obstacles to the operation of business entities. For instance, entrenched government elites may protect their interests by influencing the institutional environment in the adoption of business legislation (Ruziev & Midmore, 2015). At the same time, the adoption of inefficient rules results in favoritism, bribery, and suppression of corruption. In post-Soviet economies that have been experiencing organizational failure (Ruziev & Midmore, 2015), bureaucratic organizations gained importance, public officials personalized their positions by using loopholes and rigidities of legislation that lose the incentives of individuals to run their operations in accordance with rules (Rose, 2001). As a result, such reliance on business attitudes on interpersonal networks and political connections rather than official regulative rules leads to the misallocation of resources and constrains private sector development.

Political instability, especially in countries where frequent government changes and power breakdowns occur, political parties are heavily engaged in transportation strikes, and shutter-down strikes, affects the private sector adversely; it imposes

security threats, requires frequent high maintenance costs, and makes uncertainties (Ahmed, Ali, & Pathan, 2016). Musta (2017) found that in developing economies, political instability and finance are the most important growth constraints of firm growth, followed by tax and corruption. Smaller firms report political issues as more severe obstacles than large firms (Wang, 2016). In post-Soviet countries, the range of privatization, trade, and price liberalization processes stalled; political reforms have made even less progress and ruling government authorities have been left unchanged. Under such circumstances, formal lending to the private sector is likely to be left under the influence of political rather than economic factors (Ruziev & Midmore, 2015).

According to the Transition Report in 1995 by EBRD sts of two broad areas of business regulation (labor regulations, licensing, tax, trade, and custom activities) and institutions (judiciary, crime, corruption) and property regulation in Central Asian economies dominance of insider ownership in early mass, privatization impeded the fundamental institutional restructuring demanded for sustained private sector competitiveness and economic growth. The regulatory burden on the private sector is mostly observed in licensing and permission regulation, customs, and trade. Moreover, in these countries, regulatory uncertainty was observed making it difficult to build plans for investment in the private sector (EBRD, 2005). Businesses in transition economies faced more regulatory burdens than their counterparts in advanced economies. They face almost three times higher administrative costs, and twice as many delays connected to bureaucratic procedures (World Bank, 2005). For instance, in the first decade of the 2000s, in Kyrgyzstan contract enforcement cost was more than 100 % of the disputed amount and the cost of proceeding was more than two times income per capita (World Bank, 2004). Due to the extensive land reform series, in 1999-2001, registering property transfers that cost 5 % of the property and consisted of 7 procedures was relatively quick in Kyrgyzstan among other countries in Central Asia (World Bank, 2005).

Since 2005, among 180 economies measured by Doing Business Report 2014, the Eastern Europe and Central Asia country group improved the business regulations most. Among other regions, Central Asia has had the biggest improvements in ease of tax payments and strengthened investor rights protections, and 15 of 24 economies in the region implemented at least one reform in the contract enforcement field (World Bank, 2014).

Furthermore, the common feature of economies that have high scores on the ease of doing business is the digitalization of the regulatory process. According to Doing Business Report 2016, since 2006 Central Asia has made notable progress in the digitalization of the regulatory process. Particularly, the use of electronic tax payments and filing has increased significantly (World Bank, 2016, 2020).

Despite the improvements and modernizations in the legal and regulatory environment of businesses, in Central Asian economies, the legal and regulatory framework is left fragmented. In some countries, codes, and laws are repeated or

oppositely contradict one another. There is a significant gap between the freedom of entrepreneurs, the formal legal framework, and the implementation of reforms in the legislative and regulatory environment. Moreover, the modifications to the implementation of laws, and codes by presidents or other authorities decrees make uncertainties for business entities. Although the tax system and other administrative procedures are digitalized, in practice tax policies, customs, and trade regulations are still serious problems for businesses in the region (OECD, 2021).

In the 1990s there was a common understanding and general consensus among researchers in business and policymakers that the privatization of state-owned enterprises was a central question of entrepreneurial development and economic transition in Central Asian economies. After the 2000s, the subsequent experience of post-Soviet transition economies, including Central Asia, and findings of recent research on emerging economies suggest that proper functioning of institutions and regulatory environment are essential factors for the development of private sectors, protection of private property rights, and economic growth overall (EBRD, 2005).

3. Data and Research Methodology

3.1. Sample and data sources

Enterprise-level data used in the analysis is obtained from the EBRD-EIB-WB Enterprise Surveys (ES) 2018-2020 which is the joint project of the European Bank for Reconstruction and Development (EBRD), World Bank Group (WBG), and European Investment Bank (EIB). The ES covers 28,000 enterprises in 41 countries, including Central Asian economies. The survey's purpose is to build an enterprise-level database based on the entrepreneurs' perception of the business environment that makes it possible to track changes in the entrepreneurial environment over time. The database provides the following advantages. First, it uses a standard questionnaire across countries which makes it possible to compare firm-level data between countries and investigate region-specific features of business environment employing the same observations. Second, it covers information on firm characteristics, their performance, and perception of business environment features including legal, administrative, political, and regulative systems in different economies which enables to assessment of the impact of different constraints on SME growth in similar countries and groups and compare and contrast between countries. The GDP per capita of the selected countries is acquired from the World Development Indicators dataset of the World Bank. World Governance Indicators serve as a source of data for measuring private-sector regulatory quality, corruption, the effectiveness of government, rule of law, political stability level, and accountability of the economies in the sample.

S*mall and medium-sized enterprises* were defined differently in different studies, and it varies from country to country, especially in developing economies, there is a lack of SME statistics. Most cross-country studies define an SME as an enterprise with up

to 250 full-time employees (Ayyagari, Beck, and Demirguc-Kunt, 2007; Yaldiz Hanedar et al., 2014). In this analysis following the World Bank's Enterprise Surveys (ES) methodology, SME was defined as firms with up to 99 employees.

Even though geographically the region of Central Asia consists of five countries, in this study due to the unavailability of both firm-level and country-specific data Turkmenistan was not included. After excluding large firms (with more than 100 permanent employees) and controlling for missing values, the final sample includes 2229 firms. The cross-country distribution of firms is as follows; Kazakhstan – 996, Kyrgyzstan – 278, Tajikistan – 216, and Uzbekistan – 796 firms.

3.2. Variable Definitions and Methodology

Firm growth was measured in terms of employment growth. Following the methodology employed in previous studies (Leitner, 2016; Fowowe, 2017, and others), employment growth is defined as the difference between the logarithm of current permanent employee number and permanent employee number three years ago divided by the difference between survey years – 3. Measurement of firm growth using such methodology helps to reduce the impact of outliers on firm growth (Fowowe, 2017).

Firmgrowth = [log (Num of employee,t) – log (Num of Employeei, t-3)]/3

FirmSize is the number of permanent employees in a firm. Age is the number of years an enterprise has been operating in the selected country. Firm age was measured by subtracting the firm's year of establishment from the year when the survey was administered. Agesq is the square of the Age variable. Industry dummies for manufacturing and trade sectors were denoted as 1 if a firm operates in the manufacturing or trade sectors (wholesale and retailing) and otherwise 0. The service sector was used as a base dummy. Foreign ownership is the percentage of a firm's shares that belong to foreign owners. The logarithm of GDP per capita in current US dollars (Loggdp) is used as a proxy for an economic development indicator for the selected countries.

The measurement unit of factors private sector regulation *(Regulation),* control of corruption *(Corruption)*, the effectiveness of government (*GovernEff*), rule of law (*Law*), political stability level and absence of violence (*Political*), and voice and accountability (*Voice*) ranged between -2.5 (weak regulatory governance policies) and + 2.5 (strong regulatory governance). This variable measurement is based on a standard normal distribution with a mean value of 0 and a standard deviation of 1.

Corruption estimate gives the overall country's score on the perception of the extent to which public power is exercised for private gain. Effectiveness of government (*GovernEff*) measures the perception of the credibility of the government's commitment to public policies, public service quality, the quality of the civil services, and the level of independence from political pressures. *Regulation* indicates the enforcement and quality of government regulatory policies on private sector

development. *Political* measures the perceptions of the likelihood of political instability, and politically motivated violence, including terrorism. *Law* measures the country's score on an aggregate indicator of contract enforcement quality, property rights, the police, courts, and the likelihood of violence and crime. *Voice* and accountability give the country's aggregate score on the perceptions of the extent to which citizens are able to participate in government selection, freedom of expression, and free media.

The main objective of the analysis on the investigate the connection between *regulation, corruption*, *GovernEff, law, political, voice,* and *firmgrowth.* In addition, the impacts of other firm-specific variables and GDP per capita on firm growth were also controlled. To check the heteroskedasticity of the error terms, the Breusch-Pagan/Cook-Weisberg test for constant variances of residuals was performed. As the data under consideration suffered from heterogeneity problems, the Feasible Generalized Least Squares (FGLS) specification was applied for employment growth estimates (Wooldridge, 2010).

To observe the prevailing impact of the selected variables on firm growth, the following specification was employed:

$$FirmGrowth = \beta_0 + \beta_1 Size + \beta_2 Manufacturing + \beta_3 Trade + \beta_4 Ownership + \beta_5 Age + \beta_6 Agesq + \beta_7 LogGDP + \beta_8 Corruption + \beta_9 GovernEff + \beta_{10} Political + \beta_{11} Regulation + \beta_{12} Law + \beta_{13} Voice + \epsilon$$

To avoid the multicollinearity problem, the country dummies were replaced with particular country-specific variables and separate regressions were run with each.

4. Findings and Interpretations

As reported in Table 1, the estimate of *control of corruption* in the selected Central Asian economies ranges from -1.32 in Tajikistan to -0.31 in Kazakhstan, where the mean value of the indicator is 0 with -2.5 and +2.5 of minimum and maximum values, respectively.

Table 1. Governance Indicators across Central Asian Economies (2019)

Country	Kazakhstan	Kyrgyzstan	Tajikistan	Uzbekistan
Control of Corruption	-0.31	-0.95	-1.32	-1.03
Government Effectiveness	0.12	-0.68	-1.05	-0.51
Political Stability and Absence of Violence	-0.17	-0.24	-0.52	-0.28
Regulation	0.14	-0.35	-1.01	-0.99
Rule of Law	-0.43	-0.89	-1.23	-1.05
Voice and Accountability	-1.23	-0.45	-1.80	-1.65

It is worth noting that in all Central Asian countries, the corruption control indicator is below the average. In terms of government effectiveness, except Kazakhstan, all three countries have negative values, whereas, Tajikistan has the lowest value (-1.05). Indicators of political stability and absence of violence are below 0 in all

countries in the sample. According to indicators reported in the table, Kazakhstan has relatively better private sector regulations with a 0.14 value, and Tajikistan with the lowest level among other countries with a -1.01 estimate. The rule of law indicator is below the overall average in all Central Asian countries, ranging between -0.43 in Kazakhstan and -1.23 in Tajikistan. Among other governance indicators, voice and accountability are the lowest across Central Asian economies, reaching -1.80 in Tajikistan, -1.65 in Uzbekistan, and -1.23 and -0.45 in Kazakhstan and Kyrgyzstan, respectively.

Table 2 reports the percentage of firms that perceive certain factors as the biggest obstacle to growth. It was constructed based on the responses of SME owners or managers, to the question "Which of the following elements of the business environment, if any, currently represents the biggest obstacle faced by this establishment?". The biggest obstacle in all countries in the sample is tax rate, 14.22 % of firms in the sample tax rate as the biggest barrier to growth. A comparatively higher percentage of small firms in Tajikistan reported the tax as the biggest obstacle, 27.78 % of firms, than their counterparts in other neighboring countries. Following Tajikistan, 1.21 % and 12.53 % of firms in Uzbekistan and Kazakhstan, relatively, perceive the tax rates as the biggest obstacle to growth.

Table 2. Percentage of firms that perceive a certain factor as the biggest obstacle to growth

Biggest obstacle	All Countries	Kazakhstan	Kyrgyzstan	Tajikistan	Uzbekistan
Access to finance	7.49%	7.56%	8.63%	2.78%	8.32%
Access to land	2.51%	1.66%	1.08%	0.93%	4.55%
Business licensing and permits	1.26%	1.66%	0.36%	0.93%	1.17%
Corruption	*5.83%*	*6.73%*	*15.83%*	1.85%	2.21%
Courts	0.81%	1.14%	1.08%		0.52%
Crime, theft and disorder	1.17%	1.66%	0.72%	1.39%	0.65%
Customs and trade regulations	1.39%	1.35%	3.96%	-	0.91%
Electricity	*7.40%*	*8.07%*	*3.60%*	*7.41%*	*7.93%*
Inadequately educated workforce	*10.86%*	*18.84%*	6.12%	3.24%	4.68%
Labor regulations	0.58%	0.62%	0.36%	0.93%	0.52%
Political instability	4.58%	3.42%	*19.06%*	6.48%	0.26%
Practices of competitors in the informal sector	*11.75%*	*12.11%*	*21.58%*	*10.65%*	*8.06%*
Tax administration	3.10%	1.55%	1.44%	*14.81%*	2.34%
Tax rates	*14.22%*	*12.53%*	*6.83%*	*27.78%*	*15.21%*
Transport	3.59%	3.42%	5.04%	1.85%	3.77%
Don't know/refused	23.46%	17.70%	4.32%	18.98%	38.88%
Total	100%	100%	100%	100%	100%

The second biggest obstacle faced by SMEs in the selected economies is the competitors operating in the informal sector, with 11.75 % of all firms in the sample. The 21.58 % of firms in Kyrgyzstan reported the informal sectors as the biggest obstacle for the extension of their business activities. Kyrgyzstan is followed by Kazakhstan and Tajikistan with 12.11 % and 10.65 %, relatively. Firms that operate in the informal sector do not comply with costly business regulations and do not pay taxes. Such 'unfair' competition advantage enables them to 'steal' market share from the firms that follow formal registration, licensing, and administrative regulations, and pay taxes (Amin, 2021).

Access to finance is also among growth-constrained factors in the region, 7.49 % of firms perceive finance as the biggest obstacle. 8.63 % and 8.32 % of firms in Kyrgyzstan and Uzbekistan, relatively, reported access to finance as the biggest obstacle. After finance, SMEs in the sample perceive access to electricity as a growth-constrained barrier, with the highest percentage in Kazakhstan, Uzbekistan, and Tajikistan.

15.83% of firms in Kyrgyzstan and 6.73% of firms in Kazakhstan reported that corruption is the biggest growth-constraining barrier, whereas an insignificant percentage of firms in the other two countries perceive it as the biggest obstacle. 10.86 % of all firms reported that an inadequately educated workforce is the biggest obstacle to growth; whereas 18.84 % of firms in Kazakhstan perceive this factor as the biggest obstacle which is the highest percentage followed by Kyrgyzstan (6.12 %).

Table 3 displays the extent to which a certain factor constrains the growth of firms. The table was constructed based on the responses to the question "Is tax rates/tax administration/other factors, an obstacle to the operation of this establishment," which ranged from 0 (no obstacle) to 4 (very severe obstacle). The 14 % of small firms in the sample reported that tax rates are a major and severe obstacle to growth. The highest percentage is observed in Tajikistan (24.1%) and Kyrgyzstan (18 %).

Similarly, tax administration is perceived as a major obstacle for more firms in Tajikistan and Kyrgyzstan, followed by Kazakhstan. Compared to tax-related obstacles, business licensing, and permits are perceived as a severe obstacle by a lower percentage of firms in the selected countries.

The 11 % of firms reported that political instability is a major and severe obstacle, where a significantly high percentage was observed in Kyrgyzstan, for 38.1 % of surveyed small firms political situation is a severe obstacle to growth. For 11.7 % of firms in the sample, corruption is a major growth-constrained barrier, where small firms operating in Kyrgyzstan are significantly affected by corruption. The 29.1 % of selected firms in Kyrgyzstan report that corruption is severe growth constraining barriers. Similarly, there is a high percentage of small firms that perceive the functioning of the court system as a major obstacle to growth.

Table 3. Obstacles faced by SMEs in Central Asia

		All	Kazakhstan	Kyrgyzstan	Tajikistan	Uzbekistan
Tax rates	*No obstacle*	*50.29%*	*60.00%*	*44.96%*	*31.94%*	*61.51%*
	Minor obstacle	15.25%	11.43%	15.11%	12.96%	12.48%
	Moderate obstacle	17.50%	22.86%	20.86%	18.98%	15.60%
	Major/severe obstacle	*14.0%*	*2.9%*	*18.0%*	*24.1%*	*9.4%*
	Don't know/ refused	2.96%	2.86%	1.08%	12.04%	1.04%
Tax administration	*No obstacle*	*65.05%*	*62.53%*	*56.47%*	*39.35%*	*78.52%*
	Minor obstacle	14.13%	18.53%	12.95%	17.13%	8.20%
	Moderate obstacle	10.72%	11.49%	14.03%	12.50%	8.07%
	Major/severe obstacle	*7.0%*	*4.3%*	*15.8%*	*18.1%*	*4.0%*
	Don't know/ refused	3.10%	3.11%	0.72%	12.96%	1.17%
Business licensing and permits	No obstacle	71.15%	64.70%	64.75%	62.50%	84.01%
	Minor obstacle	11.89%	16.46%	11.51%	13.43%	5.85%
	Moderate obstacle	6.68%	8.28%	9.35%	5.56%	4.03%
	Major/*severe* obstacle	4.9%	4.8%	9.7%	2.3%	4.2%
	Don't know/refused	5.34%	5.80%	4.68%	16.20%	1.95%
Political instability	No obstacle	62.85%	55.07%	24.82%	68.52%	84.79%
	Minor obstacle	9.69%	15.84%	11.15%	3.70%	3.12%
	Moderate obstacle	11.31%	15.53%	24.82%	2.78%	3.51%
	Major/*severe* obstacle	11.0%	9.4%	38.1%	9.3%	3.6%
	Don't know/ refused	5.16%	4.14%	1.08%	15.74%	4.94%
Corruption	No obstacle	60.66%	54.76%	35.97%	61.11%	76.85%
	Minor obstacle	11.35%	15.94%	14.03%	7.41%	5.72%
	Moderate obstacle	10.63%	13.66%	18.35%	5.56%	5.46%
	Major/*severe* obstacle	11.7%	10.2%	29.1%	10.2%	7.5%
	Don't know/ refused	5.70%	5.38%	2.52%	15.74%	4.42%
Courts	No obstacle	69.99%	65.42%	50.00%	70.37%	82.83%
	Minor obstacle	9.38%	14.49%	7.91%	5.56%	4.55%
	Moderate obstacle	6.77%	9.83%	7.19%	3.24%	3.77%
	Major/*severe* obstacle	5.1%	4.8%	13.3%	2.3%	3.3%
	Don't know/ refused	8.79%	5.49%	21.58%	18.52%	5.59%

The descriptive statistics of the variables employed are given in Table 4. The size of firms ranges between 1 and 99 employees, the average size of firms in the sample is 23 employees. Foreign ownership of firms ranges between 0 % and 100 %, and the average percentage of foreign ownership is 4.12 %. The average age of firms in the sample is 13 years, the eldest firm is operating for 69 years. Table 5 provides the correlation coefficients of the selected variables. Older, foreign-owned firms and firms operating in the manufacturing sector seem to be larger in terms of employment. Businesses operating in countries with higher GDP per capita, better control of corruption, politically stable, and a better regulative environment are relatively larger. There is a significantly high correlation between governance indicators, which means that countries with effective governance, politically stable conditions, and stronger control of corruption legal and regulative environments are comparatively better.

Table 4. Descriptive statistics

Variable	Obs	Mean	Std. dev.	Min	Max
growth	2,229	0.013	0.059	-0.536	0.422
Size	2,229	22.933	20.964	1	99
Manufacturing	2,229	0.594	0.491	0	1
Trade	2,229	0.163	0.369	0	1
Ownership	2,208	4.122	17.587	0	100
Age	2,229	13.113	8.289	3	69
Agesq	2,229	240.616	397.499	9	4761.
LogGDP	2,229	3.671	0.403	3.100	4.100
Corruption	2,229	-0.736	0.384	-1.320	-0.310
GovernEff	2,229	-0.311	0.405	-1.050	0.120
Political	2,229	-0.251	0.101	-0.520	-0.170
Regulation	2,229	-0.422	0.531	-1.010	0.140
Law	2,229	-0.779	0.315	-1.230	-0.430
Voice	2,229	-1.333	0.397	-1.800	-0.450

Table 6 presents the outcomes of the regression analysis. In the first column, firm-specific variables and logGDP are regressed independent variables. Due to the high correlation between country-specific governance indicators, to avoid multicollinearity problems, the results of regressions for each governance variable are given in separate columns. As reported in Table 6, there is a positive relationship between firm size and growth. Firms operating in the trade sector report higher growth. In addition, among firm-specific variables, age becomes statistically significant, when country-specific variables are added into regression. There is a negative link between age and firm growth, and the coefficient of Agesq is positive and significant, which means that the relationship between firm growth and age is non-linear. As firms survive through informal competitors and tax and administrative burdens, they tend to grow.

There is a significant relationship between control of corruption and the growth of small firms in Central Asian economies. In countries where control of corruption is strong, there may be a better business environment that enables firms to grow their optimal size. Government effectiveness is related to small firm growth at 5 % of statistical significance. Political stability and the absence of violence in a country are important factors in macroeconomic and firm-level development.

There is a positive association between political stability and firm growth. In a politically uncertain environment, entrepreneurs are reluctant to invest for growth. Regulation, rule of law, accountability, and voice are significantly, and positively related to small firm growth in Central Asian economies. As is found in countries with better regulation, stronger rule of law and accountability, and voice, firms tend to grow.

Table 5. Correlation matrix

	Growth	Size	Manufacturing	Trade	Ownership	Age	Agesq	LogGDP	Corruption	GovernEff	Political	Regulation	Law	Voice
Growth	1													
Size	0.124	1												
Manufacturing	0.06	0.12	1											
Trade	-0.044	-0.09	-0.532	1										
Ownership	-0.003	0.11	0.013	-0.02	1									
Age	-0.175	0.13	-0.023	0.027	-0.001	1								
Agesq	-0.128	0.12	0.002	-0	0.004	0.913	1							
LogGDP	0.016	0	0.204	-0.15	-0.107	-0.12	-0.11	1						
Corruption	0.013	0.01	0.14	-0.12	-0.062	-0.04	-0.04	0.932	1					
GovernEff	0.007	0.01	0.187	-0.14	-0.077	-0.08	-0.08	0.975	0.974	1				
Political	-0.001	0.03	0.156	-0.1	-0.004	0.009	-0.01	0.76	0.848	0.878	1			
Regulation	0.04	0.02	0.059	-0.07	-0.026	0.027	0.014	0.772	0.945	0.848	0.762	1		
Law	0.021	0.01	0.118	-0.11	-0.051	-0.02	-0.03	0.895	0.995	0.949	0.836	0.972	1	
Voice	0.067	0.03	-0.108	0.057	0.12	0.206	0.164	0.002	0.353	0.207	0.502	0.577	0.43	1

Table 6. Regression outcomes for firm growth

Dependent var: growth	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Size	0.010 (0.000)***	0.012 (0.001)***	0.010 (0.010***	0.013 (0.001)***	0.010 (0.001)***	0.020 (0.006)**	0.010 (0.004)***
Manufacturing	0.001 (0.003)	-0.007 (0.003)	-0.005 (0.003)	-0.006 (0.003)*	-0.005 (0.003)*	-0.008 (0.004)**	-0.001 (0.003)
Trade	0.007 (0.004)*	0.002 (0.004)*	0.001 (0.004)	0.004 (0.031)	0.001 (0.033)	0.003 (0.034)	0.005 (0.033)
Ownership	0.010 (0.000)	0.020 (0.001)	0.008 (0.000)	0.010 (0.001)	0.012 (0.001)	0.013 (0.002)	0.010 (0.001)
Age	0.100 (0.004)	-0.012 0.001) ***	-0.0020 (0.003)***	-0.022 (0.010)***	-0.012 (0.000)***	-0.002 (0.003)***	-0.002 (0.003)**
Agesq	0.001 (0.001)	0.002 (0.001)*	0.001 (0.001)***	0.001 (0.016)**	0.001 (0.008)**	0.001 (0.001)*	0.001 (0.001)*
LogGDP	-0.015 (0.002)						
Corruption		0.120 (0.014)***					
GovernEff			0.006 (0.004)*				
Political				0.080 (0.002)***			
Regulation					0.019 (0.002)***		
Law						0.028 (0.005)***	
Voice							0.023 (0.003)***
_cons	3.030 (0.286)	1.933 (0.209)	1.537 (0.177)	2.204 (0.023)	1.661 (0.178)	2.316 0.235)	2.624 (0.240)
No of observations	2,208	2,208	2,208	2,208	2,208	2,208	2,208
R^2	0.085	0.070	0.064	0.075	0.063	0.075	0.081
F-stat	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: Standard errors are given in parentheses. *Significance of the coefficient at 10%, ** significance at 5%, *** significance at 1%.

5. Conclusion

The paper investigates the regulative and institutional growth-constraining factors of small firm growth in Central Asian economies. For the purpose of this study and due to the lack of research, in addition to relevant findings of peer-reviewed papers, Transition Reports of EBRD, and Doing Business Reports of the World Bank Group were reviewed. As a conclusion of the literature review, it is worth noting that in the early 1990s privatization of state-owned enterprises was a central question of

entrepreneurial development and economic transition in Central Asia. After 2000, the institutional and regulatory environment becomes an essential factor in entrepreneurial and economic development in the region.

Employing the data from EBRD-EIB-WB Enterprise Surveys, World Development Indicators, and World Governance Indicators, it was found that regulatory and institutional barriers constrain growth for business enterprises in the selected countries. Generally, business enterprises (11.75 % of firms in the sample) perceive tax-related issues as the biggest obstacle to reaching their optimal growth, whereas the highest percentage of firms that report tax rates as the most severe obstacle to growth was observed in Tajikistan. Additionally, political instability and corruption were also major growth constraining barriers for small firms.

Despite the improvements and modernizations in the legal and regulatory environment of businesses, in Central Asian economies, the legal and regulatory framework is an obstacle to the growth of firms in the private sector. In countries where control of corruption is strong, there may be a better business environment that enables firms to grow. There is a positive association between political stability and firm growth. Regulation, rule of law, and accountability and voice are significantly, and positively related to small firm growth in Central Asian economies. Taking into consideration the contribution of small firms in developing economies of the region, the findings of this study have important implications for policymakers. Even though some factors are country-specific, tax rates and their regulation, corruption, political instability, and absence of violence, regulation of the private sector, law and accountability are common growth-constrained issues in the region. As it was evidenced, country-specific factors prevent small firms' growth more than firm-level determinants imply. These findings recommend policymakers attentively review the regulatory and institutional frameworks to improve the business environment.

6. Research limitations and future research

The data employed in empirical analysis has several limitations, which are also common for most studies on small businesses and emerging economies. Due to the unavailability of financial statement data of small firms, employment growth was used as a dependent variable that may lead to being biased toward the labor-intensive firms. Although firm growth rate can be measured in several ways, including sales, total assets, and fixed asset values, employee growth is the most appropriate measurement of small firm growth, at least in developing economies, for the following reasons. First, the public unavailability of the financial statements of SMEs makes it difficult to use asset values to measure firm size. Second, since sales amounts are more likely to be underreported and contaminated by price fluctuations and inflation rates, employment growth is a reliable measure of firm growth (Krasniqi & Mustafa, 2016).

Another limitation is that the dataset used in the analysis is limited to surviving firms. The sample contains the business enterprises that have already survived, those firms that have bankrupted and closed due to various obstacles or those that operate unofficially were not surveyed. In data collection processes through self-administered surveys perception bias also affects the result of the analysis, since respondents may misjudge, exaggerate, or underestimate some issues which they might perceive differently.

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