**Access to Finance for SMEs in Post-Socialist countries: The Baltic States and the South Caucasus compared**

Purpose

*This article examines access to finance for SMEs in the Baltic States and the South Caucasus countries following the financial crisis of 2007, and is set within the context of the rule of law for businesses.*

Design/methodology/approach

*The article uses the cross-sectional dataset from the Business Environment and Enterprise Performance Survey (BEEPS) for 2009 to examine access to finance for SMEs and the court system in the Baltic States and the South Caucasus countries. An ordered probit estimation technique is used to model access to finance and the court system in the Baltic States and the South Caucasus countries. The analysis draws upon institutional theory to explain access to finance for SMEs.*

Findings

*The results show variations from one Baltic State and South Caucasus country to another in relation to the fairness, speed of justice and enforcement of court decisions. The analysis suggests that if access to finance is not an obstacle to business operations and the court system is fair, impartial and uncorrupted, it determines the likelihood of strength in entrepreneurship.* *Additionally, the results show that, within the Baltic region, businesses experiencing constraints in accessing finance are more likely to have females as their top managers. However, for the South Caucasus region, there was no gender difference.*

Research limitations/implications

*This research is based on evidence from the Baltic States and the South Caucasus region. However, the findings are relevant to discussions on the importance of the context of entrepreneurship and more specifically, the rule of law. Institutional theory provides an explanation for coercive, normative and mimetic institutional isomorphism in the context of access to finance for SMEs. Coercive institutional isomorphism exerts a dependence on access to finance for SMEs. In coercive institutional isomorphism, formal and informal pressures are exerted by external organisations such as governments, legal regulatory authorities, banks and other lending institutions. These formal and informal pressures are imposed to ensure compliance as a dependency for a successful access to finance goal.*

Practical implications

*This research creates awareness among entrepreneurs, potential entrepreneurs, business practitioners and society that reducing obstacles to access finance and a fair court system improve entrepreneurial venture formation. This has the potential to create employment, to advance business development and to improve economic development.*

Originality/value

*This paper makes an original contribution by emphasising the significance of access to finance and a fair court system in encouraging stronger entrepreneurship. The institutional framework provides a definition for coercive institutional isomorphism to show how external forces exert a dependence pressure towards access to finance for SMEs.*

Keywords: *Access to finance; Entrepreneurship; Gender; SMEs; Baltic States; South Caucasus; Rule of Law*

**1. Introduction**

This paper examines the importance of access to finance by SMEs in developing economies set within their institutional framework context. Finance is regarded as a key resource in the new-firm formation process, as is the importance of a supportive institutional framework (Acs *et al*., 2008; Ahlstrom and Bruton, 2010). The role of entrepreneurship and SMEs in economic development is now widely recognised (World Bank, 2015; GEM, 2012; Stein et al., 2010). Chironga *et al.* (2012) for example, analysed nine emerging markets and found that approximately 65 per cent of employment and 40 per cent of GDP derived from micro small and medium enterprises. The importance of access to finance has been emphasised in this development (Khanna et al., 2017; Saridakis *et al*., 2013, 2014; Popov and Udell, 2012;Smallbone *et al*., 2012; Ivashina and Scharfstein, 2010; Beck and Demirguc-Kunt, 2006). Further evidence from post-planned, transition economies has also found that additional challenges for start-up enterprises include deficiencies in the formal institutional framework conducive to enabling the development of a market economy (e.g. Smallbone and Welter, 2001; Smallbone *et al*., 2014). Hence, as well as investigating access to finance for entrepreneurs in post socialist countries, this paper examines the effectiveness of the judicial system which, it is suggested, can influence the development of entrepreneurship.

Institutional theory provides the theoretical foundation for this research. This suggests that external and environmental forces, coupled with the forces within the firm, encourage convergent business practices and norms (Zsidisin *et al*., 2005). Therefore, institutional theory provides an avenue to explore formal and informal analyses of institutional influences including cultural norms, values and beliefs (Aidis *et al*., 2007; Ahlstrom and Bruton, 2010; Peng, 2003). Institutional theory can be applied to a wide range of organisational and research subject contexts. These include analyses of supply chains (Davis-Sramek *et al*., 2016; Glover *et al*., 2014), entrepreneurship (Ahlstrom and Bruton, 2010; Hughes and Mustafa, 2016), learning and innovation (Cai *et al*., 2016; Fuentelsaz *et al*., 2018), health (Sherer *et al*., 2016), politics (March and Olsen, 1984), sociology (Meyer and Rowan, 1977), migration (Williams, 2020), corporate social responsibility (Othman *et al*., 2011), business continuity planning (Zsidisin *et al*., 2005) and marketing (Yang and Su, 2014). Thus, the concept of institutions is present in many spheres of human endeavours. Early studies by DiMaggio and Powell (1983), introduce an aspect of institutional theory known as coercive isomorphism, which explains that some business practices can be a result of pressure exerted on the firm by another firm or individual, on which they may be dependent, formally or informally. This theoretical framework provides a foundation to help explain the role of law or gender in entrepreneurship and particularly in accessing finance, which appear to be shaped by external forces such as societal beliefs and cultural norms.

 The collapse of the Soviet Union in 1991 marked a fundamental change in the socio-economic and political landscape of Europe (Kõlves *et al*., 2013). Among the 15 countries of the former Soviet Union, the Baltic States (Estonia, Latvia and Lithuania) and South Caucasus (Armenia, Azerbaijan and Georgia) were chosen for attention in this paper. The main rationales for this choice were the contrasting developmental paths of the countries involved (Sauka and Chepurenko, 2017) as well as the challenges to the development of a new entrepreneurial class in the region (Rupeika-Apoga, 2014). The rationale for choosing these two regions is based on their geographical locations in relation to the EU member states and non-members of the EU that were part of the old Soviet Union. All six countries were part of the Soviet Union. While the Baltic States are now in the EU, South Caucasus region is not. The two post-Soviet Union regions also allow for a comparison between those in the EU and the non-EU members.

In the Baltic States, the process of preparing for EU membership was a major driver of institutional change. One aspect of this is the operation of the courts in dealing with regulation of business. There are also differences related to their respective geographical locations. Thus, whilst the Baltic States have a geographical border with other EU countries to the West, the South Caucasus countries have a border with south Asia. The differences in the pace of institutional change may lead us to expect some differences in access to finance because of the effects of a fair and stable court system for businesses on the willingness of lenders to advance funds. Although the newer EU member states, including those in the Baltic region, are known to be developing institutional and democratic reforms, as part of their preparation for European Union membership, other post-Soviet Union countries are still proceeding with central planning (Aidis *et al*., 2007). The introduction of the European Neighbourhood Policy (ENP) in 2003 is a way the EU intends to bring institutional change, openness and development to its neighbours (Chilosi, 2007).

Research has confirmed that adverse macro-economic conditions, such as the financial crisis of 2007-2008, constrain the availability of funds for business and accentuates complexity in the process of SMEs accessing funds (Rupeika-Apoga, 2014; Saridakis *et al*., 2013; Popov and Udell, 2012;Smallbone *et al*., 2012; Ivashina and Scharfstein, 2010). For example, prior to the financial crisis of 2007-2008, Estonia experienced a boom in cash inflows through real estate and credit but the global financial crisis introduced a high intensity burst resulting in economic slowdown in the country (Brixiova *et al*., 2010). Elsewhere, the housing market in Latvia became seriously overheated as local income levels began to rise on par with other Western European countries (Klyviene and Rasmussen, 2010). While Georgia experienced the twin effects of war and financial crisis, Azerbaijan, Armenia, Lithuania and Latvia experienced their own challenges while the crisis persisted (Wrobel, 2015; Otarashvili, 2013; Phillips *et al*., 2012; Klyviene and Rasmussen, 2010; Giuli, 2009). In most countries, access to finance is amongst the most commonly reported constraints on SME development by business owners and managers (Roberts, 2015). This applies in mature market economies but most particularly in emerging market economies (OECD, 2006: Ch 1). There is also some evidence that there is a major gender difference in access to finance in developing economies (Manolova *et al*., 2006; De Vita *et al*., 2014).

This article aims to contribute to the knowledge and understanding of access to finance and the role of legal regulatory processes in the Baltic States and South Caucasus regions. The analysis is set within an institutional theory framework. Empirically, we use the cross-sectional dataset from the Business Environment and Enterprise Performance Survey (BEEPS) for 2009, to examine access to finance for SMEs together with the efficiency of the court system in the Baltic States and South Caucasus regions. The paper also examines the role of the court system in facilitating financial contracts between business borrowers and lending institutions. We make a cross-country comparison to determine how the capacity for entrepreneurship is shaped by access to finance and the legal regulatory system. This article is the first to analyse access to finance and the legal regulatory system in the Baltic States and South Caucasus regions. Apart from the BEEPS data, secondary research information from the World Bank (WBDB, 2015; World Bank, 2015), Global Entrepreneurship Monitor (GEM, 2012, 2015) and World Justice Project (WJP, 2014) provides support to enhance discussion in this research.

The main questions to be addressed in this article are: (a) To what extent is access to finance a constraint on business development? (b) Are there differences between the Baltic States and South Caucasus regions in access to finance for businesses? (c) Is there a gender dimension in access to finance in the Baltic States and South Caucasus? (d) To what extent does a ‘good’ court system facilitate improved access to finance for businesses?

This paper proceeds as follows. Section 2 presents the background of the study. Against this context, section 3 provides the literature review and hypotheses development. Section 4 describes the data and section 5 defines the empirical methodology. Section 6 presents the empirical analysis and findings. Section 7 provides a discussion of the findings. Finally, section 8 offers the conclusions and suggestions for further research.

**2. Background**

Various and specific constraints have been affecting economic development in former members of the Soviet Union since its collapse in 1991. In pursuing an economic growth agenda, the Baltic States embraced European Union membership in 2004. This had a positive effect on the development of institutions and economic growth but less so in the South Caucasus region. According to Simão (2012), the protracted conflict in the South Caucasus region has limited the development of European Union style democracy. Sammut (2013) believes that although modern buildings abound in the South Caucasus region, old style Soviet ‘practices’ persist. In the conflict between Russia and Georgia in 2008, sections of Georgian territory became isolated with recognition from Russia (Kakachia, 2011). This has caused a negative economic effect to the energy trade route with the EU, as Georgia occupies a strategic geopolitical position. However, unrest in the Georgian territory brought confusion to the South Caucasus region; hence, increasing the constraints affecting economic growth.

The South Caucasus region is seen as a crucible of various powers with influences from Russia, the USA and the European Union (Suny, 2010). While Russia seeks to secure its former Soviet authority in the South Caucasus region, the European Union and USA aim to seek economic progress for the region, as independent states with unhindered free market autonomy. Senior financial executives in the business community aspire to see the Eastern Europe region as part of the European Union because investors are more inclined towards free market with EU membership to promote fairness, rights and justice (Welch and Ciner, 2004). Indeed, the European Union membership provides better investor protection than the relics of the former Soviet Union.

During the financial crisis of 2007-2008, levels of financial constraint was higher for smaller firms, suggesting that larger and older firms were more successful in accessing finance than smaller firms (Cowling *et al*., 2012). The financial crisis showed that adverse economic conditions have detrimental effects on small businesses and limit their access to finance (Saridakis *et al.*, 2013; Smallbone *et al.*, 2012; Cornett *et al.*, 2011). An increase in foreign banks in Eastern Europe exposed these economies to a form of imported adverse economic conditions, as finance from foreign banks was tightened, with consequent adverse effects on local SMEs (Popov and Udell, 2012). Therefore, while the parent banks in the developed countries experienced recessionary pressures, their foreign counterparts that operate locally in Central and Eastern Europe had a localised version of uncertainty following reduced lending for SMEs. In crisis times, domestic banks tended to contract their credit base whilst foreign owned banks did not and relied on the health of their parent banks (de Haas and van Lelyveld, 2006). At the same time, there were differences between Central and Eastern European countries in terms of the impact of the financial crisis associated with the ownership of banks (Popov and Udell, 2012; Brixiova *et al*., 2010). In the Baltic States for example, following their bankruptcy in the early 1990s, the Estonian, Latvian and Lithuanian banks were mainly foreign owned (Aidis *et al*., 2007).

The credit and real estate markets of Estonia were affected by the global financial crisis of 2007-2008 causing slow economic growth (Brixiova *et al*., 2010). According to Pissarides (1999), the inadequate availability of credit during the crisis created limitations on the growth of SMEs in Central and Eastern Europe. Research by Stein et al. (2010) shows that within Central Asia and Eastern Europe, only 45 percent of micro, small and medium enterprises have access to finance, however, this is the second-highest percentage when compared to the other regions. Where there is inadequate credit for businesses, there is bound to be an increase in competition for the limited available business funding among SMEs. According to Bitzenis and Nito (2005), 75 percent of entrepreneurs in Albania claim that unfair competition is a major obstacle for growth of their SMEs, and 56 percent claims that a lack of financing is another major obstacle. Although Aidis *et al*. (2007), found that the availability of credit from the informal sector in Eastern Europe provided an opportunity for financing for some start-ups and small firms, the amount of money involved was typically not sufficient to support substantial SME growth. Furthermore, the majority of entrepreneurs in Albania prefer to receive financing for their SMEs through the banks over informal financial institutions (Bitzenis and Nito, 2005). However, the most devastating consequence of the financial crisis of 2007-2008 in Eastern Europe was the sharp fall in consumer demand for goods and services (Nguyen and Qian, 2014). The most financially distressed firms suffered the greatest adverse effect of the credit crunch (Mac and Bhaird, 2013). Georgia experienced twin crises during 2007-2008: the financial crisis and the South Ossetia War, causing a negative impact on confidence in the Georgian government and institutions (Otarashvili, 2013; Phillips *et al*., 2012; Giuli, 2009). The reduction in capital flows across countries during the global financial crisis depended on their financial integration, nature of the effect, macroeconomic conditions and the level of their interconnections to international trade flows (Klyviene and Rasmussen, 2010; Milesi-Ferretti and Tille, 2010).

Despite the financial crisis in the Baltic States in 2007-2008, they have progressed economically and are now following an independent path to achieving transition (Wrobel, 2015; IMF Survey, 2014; Sauka and Chepurenko, 2017). Preparations for entry and entry to the EU may be one reason for this progression. Evidence suggests that entry to the European Union has had a strong positive impact on the confidence levels of entrepreneurs in new member states between 2004-15 (Cieślik *et al*., 2018). However, the South Caucasus countries are still experiencing the effect of the financial crisis with Azerbaijan suffering high unemployment, falling oil price and national currency depreciation (IMF Survey, 2015a; IMF Survey, 2015b; Mammadov, 2015). The IMF Survey (2015b) also showed that while oil-exporting countries felt the adverse shock in lowering prices, oil-importing countries were enjoying a long period of low oil prices with positive effects on their economic outlook.

**3. Literature review and hypotheses development**

**3.1 Access to finance by SMEs, legal regulatory environment and business development**

Beck *et al*. (2006) suggest that institutional development is a key factor in understanding cross-country comparisons of SME financing. Further research suggests that a weak financial system is inextricably linked to a weak legal system (Beck *et al*., 2008). This suggests that SMEs in operation in contexts with weak financial systems are more likely to be financially constrained and exhibit the characteristics of stunted growth and premature closure. The role of the institutional framework, particularly the legal system, is also not to be underestimated. The efficiency of the judiciary supports business access to credit as the costs of financial intermediation are reduced (Laeven and Majnoni, 2005). Therefore, it is fair to argue that an increase in judicial efficiency lowers the cost of credit for SMEs. According to Maiti (2018), banks are more likely to finance SMEs when operating in a solid and developed legal environment. In the coercive institutional isomorphism, formal and informal pressures are exerted by external organisations such as the government, legal regulatory authorities, banks and other lending institutions (Dimaggio and Powell, 1983; Sherer *et al*., 2016; March and Olsen, 1984; Meyer and Rowan, 1977).

The Global Entrepreneurship Monitor (GEM, 2012) suggests that entrepreneurial activity and a well-supported business environment are prerequisites for substantial economic development. Thus, a government that rewards creativity and innovation encourages entrepreneurial ventures and new business creation. Wang *et al*. (2015), found that innovative firms are more likely to frequently seek external financing and in higher quantities than non-innovative firms. Furthermore, despite the higher risk of default by innovative firms, empirical evidence shows that innovative firms receive greater amounts of external funding for their projects than non-innovative firms (Wang *et al*., 2015). Economic stability and market economies have improved in Eastern Europe for more than a decade (Welch and Ciner, 2004). Beck and Demirguc-Kunt (2006) found that good financial and institutional development supports SMEs by reducing the limitations to their growth. Aggarwal and Goodell (2014) also reiterate the usefulness of an efficient financial sector in improving access to finance for SMEs. Therefore, if governments are seeking to promote entrepreneurship in the form of new-firm formation and development, it is imperative that they create a framework for the conditions aimed at productive small business development.

Aggarwal and Goodell (2014) suggest that better access to finance is associated with higher levels of national wealth and adequate legal protection for investors. In transitional economies, however, the legal system is not adequately developed to protect market investors and investees (Pistor *et al*., 2000). An effective legal regulatory environment is determined by the effectiveness of the applicable laws rather than a mere existence of the legal system (Yao and Yueh, 2009). The efficiency of the legal and regulatory systems depends, in part, on the quality of the national court system in mediating contractual disputes (Laeven and Majnoni, 2005; La Porta *et al*., 1998). According to La Porta *et al*. (1998), an effective legal regulatory system can support financial contracts. If the judiciary is efficient with judicial enforcement of financial contracts, there will be a lower cost attached to the access to finance by SMEs (Laeven and Majnoni, 2005). To this end, an effective legal regulatory system can act as a symbol of an efficient financial sector and institutional development because it provides protection for the financial market participants.

Indeed, access to finance providers is supportive of an effective legal framework to protect them in contractual engagements with SMEs. Higher levels of protection of property rights lead to better outcomes for investors and businesses (Hur *et al.*, 2006). Firm performance and property rights protection are positively linked (Yasar *et al.*, 2011). It follows that the protection of property rights requires an efficient legal framework and leads to improved access to finance and better firm performance. Amongst other criteria, the European Union expects all potential member states to comply with and apply the rule of law to promote stability, rights and improved market economies (EC, 2014a, 2014b; Copenhagen Criteria, 1993). The rule of law means that governments, agents, individuals and private entities are accountable under the law (WJP, 2014).

As a result of the membership of the European Union, financial investors in the USA are more inclined to invest in Eastern European countries, leading to an enhanced financial market environment (Welch and Ciner, 2004). However, the rule of law is multidimensional and has an impact on the business environment and national economy, particularly given the major ‘law and order’ challenges in transition countries (Haggard and Tiede, 2011). They argue that if the court system fails to resolve disputes and apply the principle of fairness and equality between parties, it may become irrelevant and cease to be trusted. Therefore, weak legal regulatory systems, weak institutional development, inadequate protection for investors and adverse economic environment, combine to reduce the ease of access to finance for SMEs. We therefore propose the following hypotheses:

***H1:*** *Fairness in the court system reduces the obstacles to SMEs accessing finance.*

***H2:*** *Decision enforcement in the court system reduces the obstacles to SMEs accessing finance.*

**3.2 Access to finance by SMEs, entrepreneurship and gender**

Bank managers are supposed to be gender ‘blind’ when making decisions regarding loan approvals, although studies are not consistent with this notion since bank managers are typically gender biased in favour of males (Sandhu *et al*., 2012). Female entrepreneurs face tighter credit availability in their search for business loans, but the conditions are relaxed with established banking relationships signifying that gender is relevant in access to bank finance (Bellucci *et al.*, 2010). It is suggested that female entrepreneurship in transitional economies, like the Ukraine and Lithuania, does not follow conventional practice as in the developed world (Aidis *et al*., 2007). According to Aidis *et al*. (2007), female entrepreneurship is the key to societal development but there are informal institutional influences affecting them. This echoes the coercive, normative and mimetic institutional isomorphism as described by Dimaggio and Powell (1983). According to Wijewardena *et al.* (2008), the mentality of the business owner can have an impact on the financial performance of the organisation. Therefore, the mentality of females can reduce self-confidence, as well as negatively impact their business operations and performance. Factors such as age, urbanisation and education have no significant influence on the likelihood of an individual to engage in entrepreneurship (Batsakis, 2014). However, empirical studies on transition economies show that males have a higher probability of engaging in entrepreneurial activities compared with females (Estrin and Mickiewicz, 2011; Krasniqi, 2009).

In aggregate, female entrepreneurs in each of the Eastern European economies constitute less than 30% of the population of entrepreneurs (GEM, 2012). Aggarwal and Goodell (2014) reiterate the cultural dimension of access to finance and the importance of national culture on access to finance for businesses. They assert that national culture determines a dimension of cultural norms associated with different types of people and nationalities. Gupta *et al*. (2009, p. 398) argue that the socially formed, societal norm and knowledge about gender and entrepreneurship put constraint on the ability of females ‘to accrue social, cultural, human, and financial capital’. The socially formed norms and practices put limits on the ability of females in their entrepreneurial ventures as they are unable to provide credit history to compensate for inadequate or lack of collateral (Gupta *et al*., 2009).

According to GEM (2012), the culture of an entrepreneur has an effect on their entrepreneurial venture and participation. This may also have a gender dimension. Gupta *et al*. (2009) state that there is a gender stereotype against female owner-managers. Moreover, socially formed, societal norms and knowledge about gender characteristics and entrepreneurship differ from one country to another and this has existed over many centuries (Gupta *et al*., 2009). Although Gupta *et al*. (2009) conclude that their research may only be relevant to the countries selected for the investigation (USA, Turkey and India) their results are significant for setting the context for this paper. Aidis *et al*. (2007), for example, identify the influence of cultural norms and values in creating an informal institutional frame constraining female entrepreneurship. Therefore, this paper provides an opportunity to contribute to the literature and explore the gender and cultural dimension for access to finance in this research context. We therefore, propose the following hypotheses:

***H3****: Businesses with at least one female owner reduces the obstacle to SMEs accessing finance.*

***H4:*** *Businesses with a female top manager in charge are more likely to experience obstacles to accessing finance.*

**4. Data**

We draw upon a sample of 11998 SMEs for our analysis originating from the Business Environment and Enterprise Performance Survey (BEEPS) for 2009. The survey captured the self-reported information of business owners. It was administered jointly by the World Bank and the European Bank for Reconstruction and Development (EBRD, 2018). The response rate for the survey was generally low for both Baltic States and South Caucasus region. Non-response was a result of the following issues: distrust in the purpose of the survey, length of questionnaire, respondents were suspicious of the enumerators and the negative effect of the economic crisis (EBRD-BEEPS, 2010a, 2010b). The number of contacted establishments per realised interviews was between 1.8 and 6.5 for the two regions selected. The 2009 survey was conducted among 30 countries in Central and Eastern Europe, including: Albania, Armenia, Azerbaijan, Belarus, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, FYR Macedonia, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Montenegro, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Tajikistan, Turkey, Ukraine and Uzbekistan. Although there were 30 countries in the survey, this paper focuses on six former Soviet Union countries in the Baltic (Estonia, Latvia and Lithuania) and South Caucasus (Armenia, Azerbaijan and Georgia) regions. While the Baltic States are now within the EU, South Caucasus countries are outside of it with the opportunity to benefit from ENP (EC, 2014a, 2014b; Chilosi, 2007; Copenhagen Criteria, 1993).

 The BEEPS 2009 survey is the fourth in its history and the latest single year comprehensive survey for the region (Eastern Europe and Central Asia) including the Baltic States and South Caucasus. This survey is the closest for making analysis of the financial crisis of 2007-2008. Other BEEPS surveys were performed in 1999 (1st), 2002 (2nd), 2005 (3rd), 2012-16 (5th). However, the 2009 survey is the closest data representation for making analysis of the financial crisis of 2007-2008.  Hence, this research looks at the BEEPS 2009 survey. A number of researchers have used the BEEPS 2009 data to achieve their various goals (Alili, 2015; Anderson, 2018; Chakravarty and Xiang, 2013; Gama *et al*., 2017; Abdixhiku *et al*., 2017; Sidorkin and Vorobyev, 2018; Bernini and Montagnoli, 2017).

 For the purpose of assessing access to finance and the efficiency of the court system from one country to another, we focused on information about access to finance and the court system in each of the Baltic States and South Caucasus countries. We also explored the gender of top managers and business owners as a way to determine their gender characteristics. Furthermore, we explored other relevant information including quality certification, competition from informal sector, management experience, government subsidies, possession of overdraft facility, possession of credit/loan facility, whether applied for new credit/loan and the total sales. A Likert scale was used to analyse the responses to the questions on the survey.

The responses were used to measure the level of effectiveness of the court system in supporting access to finance contracts in the Baltic States and South Caucasus countries. Although the Baltic States and South Caucasus countries in the survey are comparable on the basis of the responses received, it will be difficult to relate the responses to other countries that were not surveyed. The ‘don’t know’ or ‘does not apply’ responses were excluded from our sample to improve validity and robustness.

 Figure 1 presents a conceptual framework of access to finance using institutional theory. Institutional theory suggests that firms operate in an environment comprising rules, regulations, competitors and consumers (Dimaggio and Powell, 1983; Sherer *et al*., 2016; March and Olsen, 1984; Meyer and Rowan, 1977). In access to finance by SMEs, the three categories of institutional theory (coercive, normative and mimetic) play a vital role in the success or failure in accessing finance. Figure 1 identifies the organisational change dynamics as they relate to the effect of attaining the access to finance goal. The institutional environments have the greatest effects on organisational behaviour, structure, strategy, governance and process (Yang and Su, 2014). Figure 1 also presents coercive, normative and mimetic isomorphism. Coercive isomorphism has a dependence effect in reaching access to finance goal. Normative isomorphism has a demand effect in reaching access to finance goal. Mimetic isomorphism has an uncertain effect in reaching access to finance goal. Hence, in coercive institutional isomorphism, formal and informal pressures are exerted by external organisations such as the government, legal regulatory authorities, banks and other lending institutions. These formal and informal pressures are imposed to ensure compliance as a dependency for successful access to finance. In normative institutional isomorphism, there is a demand effect where professionalism and customer demand influence compliance towards the access to finance goal. In mimetic institutional isomorphism, there is an uncertainty effect where competitor forces and uncertain circumstances could determine access to finance goal. Hence, in mimetic institutional isomorphism, the effect of the financial crisis of 2007-2008 caused demand to collapse and reduced finance for SMEs (Rupeika-Apoga, 2014; Nguyen and Qian, 2014; Saridakis *et al*., 2013; Popov and Udell, 2012;Smallbone *et al*., 2012; Ivashina and Scharfstein, 2010). This can be classified as generating uncertainty in SMEs access to finance goal.

**Figure 1:** Conceptual framework of access to finance for SMEs

*GOAL*

*EFFECT*

*INSTITUTIONAL ISOMORPHISM*

COERCIVE

*Law / Regulation / Larger Organisations / Lender*

Dependence

NORMATIVE

*Professional demand / Customer demand / Licence / Accreditation*

Demand

Access to finance

MIMETIC

*Competitor forces / Uncertainty*

Uncertain

Adapted from Dimaggio and Powell (1983).

**4.1 Sample analysis**

Table 1 provides the summary statistics containing the dependent and independent variables for this investigation. Access to finance obstacle is a dependent variable and interprets the level of access to finance obstacle to business operations where 0 is no obstacle and 4 is a very severe obstacle. Fairness is defined as the component of the court system made up of the feature of fair, impartial and uncorrupted. Quick justice defines a court system featuring a quick or speedy court process. Decision enforcement describes a court system that is able to enforce its decisions. Female owner defines a business with at least one female owner. Top manager female describes a business with the gender of the top manager as female. The sample of 757 was extracted from the total population of 11998 by filtering and adding the survey results of the Baltic States and South Caucasus region only. The excluded outliers include responses such as “don’t know” and “does not apply”. See Table 1 Notes for further information. Table A3 in the Appendix contains Correlation Matrix to help the reader understand the variables and data.

**Table 1:** Summary statistics for the Baltic States and South Caucasus Region

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Variables | Type | N | Mean | Std. dev. | Min | Max |
| Access to finance obstacle1 | Dependent | 757 | 1.5218 | 1.3613 | 0 | 4 |
| Fairness | Control | 757 | 0.4320 |  | 0 | 1 |
| Quick justice | Control | 757 | 0.2748 |  | 0 | 1 |
| Decision enforcement | Control | 757 | 0.6460 |  | 0 | 1 |
| Female owner (≥1) | Control | 757 | 0.3844 |  | 0 | 1 |
| Top manager female | Control | 757 | 0.1770 |  | 0 | 1 |
| Public limited company | Independent | 757 | 0.1308 |  | 0 | 1 |
| Private limited company | Independent | 757 | 0.7398 |  | 0 | 1 |
| Sole proprietor | Independent | 757 | 0.1030 |  | 0 | 1 |
| Partnership | Independent | 757 | 0.0172 |  | 0 | 1 |
| Other types of firms | Independent | 757 | 0.0092 |  | 0 | 1 |
| Formally registered | Independent | 757 | 0.9590 |  | 0 | 1 |
| Management experience2 | Independent | 757 | 3.5852 | 0.6604 | 1 | 4 |
| ---0 to 1 year mgt. experience | Independent | 757 | 0.0119 |  | 0 | 1 |
| ---2 to 4 years mgt. experience | Independent | 757 | 0.0608 |  | 0 | 1 |
| ---5 to 10 years mgt. experience | Independent | 757 | 0.2576 |  | 0 | 1 |
| ---11+ years mgt. experience | Independent | 757 | 0.6697 |  | 0 | 1 |
| Quality certification | Independent | 757 | 0.2417 |  | 0 | 1 |
| Competition-unregistered/informal | Independent | 757 | 0.4161 |  | 0 | 1 |
| Government subsidies | Independent | 757 | 0.1070 |  | 0 | 1 |
| Possess overdraft facility | Independent | 757 | 0.3527 |  | 0 | 1 |
| Possess line of credit or loan | Independent | 757 | 0.5297 |  | 0 | 1 |
| Applied for new loans/lines of credit | Independent | 757 | 0.4346 |  | 0 | 1 |
| Total sales 0 to 100,000 | Independent | 757 | 0.1546 |  | 0 | 1 |
| Total sales 100,001 to 500,000 | Independent | 757 | 0.1810 |  | 0 | 1 |
| Total sales 500,001 to 1,000,000 | Independent | 757 | 0.0938 |  | 0 | 1 |
| Total sales 1,000,001+ | Independent | 757 | 0.5707 |  | 0 | 1 |
| Main market – Local | Independent | 222 | 0.2523 |  | 0 | 1 |
| Main market – National | Independent | 222 | 0.4730 |  | 0 | 1 |
| Main market – International | Independent | 222 | 0.2748 |  | 0 | 1 |

*Notes:*

 *1Access to finance obstacle is categorised from 0 to 4 where 0 is No obstacle, 1 is a Minor obstacle, 2 is a Moderate obstacle, 3 is a Major obstacle, and 4 is a Very severe obstacle.*

 *2Management experience is combined and also categorised from 1 to 4 where 1 is 0 to 1 year, 2 is 2 to 4 years, 3 is 5 to 10 years and 4 is 11+ years. Dummy variables are created for each category.* *All other variables were generated as binary outcomes where 0 is No and 1 is Yes. This is a combined summary statistic for Baltic States and South Caucasus regions.*

It can be deduced from the analysis in Table 2a that access to finance is an important factor for business operation in the surveyed countries. Although the analysis is based on self-reported data, it shows that the significance of access to finance in comparison with other reported barriers (e.g. electricity, political instability, tax rates, corruption, etc.) to business operations vary from one country to another. Table 2a provides support to the research by Pissarides (1999) that access to finance alone is not the cause of low business growth in Central and Eastern Europe. The BEEPS survey shows that access to finance is not the biggest obstacle to business operations in all of the countries surveyed. Access to finance is the biggest obstacle to business operations in Azerbaijan, third biggest obstacle in Lithuania, and Georgia, fourth in Armenia, and fifth in Estonia and Latvia.

The analysis shows that ease of access to finance for SMEs is different in each of the Baltic States and South Caucasus countries, indicating a varying level of obstacles to business operations. Other reported major barriers to business operations include an inadequately educated workforce (Estonia); practices of competitors in the informal sector (Armenia); and tax rates (Latvia and Lithuania). Table 2b provides a summary of the responses to the series of questions described earlier by country. The highest percentage of respondents tending to agree or agree strongly that the court system is fair (Fairness) is recorded for Estonia followed by Azerbaijan and Georgia, then Latvia, Lithuania and Armenia. The highest percentage to agree or strongly agree that there is quick justice is recorded for Armenia followed by Azerbaijan then Georgia, Estonia, Latvia and Lithuania. The highest agreeing or strongly agreeing that the court system is able to enforce its decisions is found in Armenia followed by Estonia then Lithuania, Azerbaijan, Georgia and Latvia.

As shown in Table 2b, the proportion of firms recording at least one female owner is highest in Latvia followed by Estonia then Georgia, Lithuania, Armenia and Azerbaijan. Latvia also has the highest proportion of firms with female top managers followed by Estonia then Georgia, Lithuania, Armenia and Azerbaijan.

Competition from firms in the informal sector is reported highest in Georgia followed by Azerbaijan then Lithuania, Armenia, Latvia and Estonia. The competition from the informal sector is higher in the South Caucasus region than the Baltic region. This confirms, Aidis *et al.* (2007) that the activities of firms in the informal sector could not be ignored. Government subsidies are higher among firms in the three Baltic States than those among the South Caucasus by large proportions. Our analysis shows that Armenia did not provide government subsidies for businesses in 2009. All the firms in the Baltic States and South Caucasus regions possess both overdraft facility and credit/loan facility. They also applied for new lines of credit/loan. Lithuania has the highest proportion of firms which applied for new lines of credit/loan followed by Georgia then Estonia, Armenia, Latvia and Azerbaijan. As there are high proportions of firms making credit/loan applications, there is need for protection for lenders and borrowers alike to create a fair and equitable business domain for all.

Table A1 in the Appendix shows the Strength of Legal Rights index (SLRi). This index was developed by the World Bank to provide comparison between countries in terms of protection for borrowers and lenders (WBDB, 2015; World Bank, 2015). Additionally, Table A1 provides a comparison between the Baltic States and South Caucasus countries in terms of law and justice indicating the level of the protection for borrowers and lenders. Apart from the Baltic States and South Caucasus countries, three countries (Germany, UK and USA) provided benchmarks to support the comparison.

**Table 2a:** Proportion of the biggest obstacles to business operations by country

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Obstacles to business operations | Armenia | Azerbaijan | Georgia | Estonia | Latvia | Lithuania |
| *Access to finance* | 14.29 | (31.67) | 14.10 | 7.59 | 11.56 | 10.45 |
| *Access to land* | 0.00 | 1.67 | 3.85 | 1.38 | 1.36 | 0.75 |
| *Business licensing and permits* | 0.75 | 4.17 | 2.56 | 1.38 | 0.68 | 4.48 |
| *Corruption* | 2.26 | 18.33 | 8.97 | 2.07 | 3.40 | 2.99 |
| *Courts* | 1.50 | 0.00 | 2.56 | 0.69 | 0.68 | 0.75 |
| *Crime, theft and disorder* | 0.00 | 0.00 | 1.28 | 3.45 | 0.68 | 5.22 |
| *Customs and trade regulations* | 6.02 | 2.50 | 3.85 | 0.69 | 0.00 | 0.00 |
| *Electricity* | 2.26 | 1.67 | 3.85 | 2.76 | 0.68 | 2.99 |
| *Inadequately educated workforce* | 0.75 | 2.50 | 2.56 | (30.34) | 13.61 | 7.46 |
| *Labor regulations* | 0.75 | 1.67 | 0.00 | 12.41 | 3.40 | 5.22 |
| *Political instability* | 15.04 | 1.67 | (20.51) | 20.69 | 14.97 | 11.94 |
| *Practices of competitors in the informal sector* | (23.31) | 7.50 | 15.38 | 8.97 | 10.88 | 9.70 |
| *Tax administration* | 9.02 | 3.33 | 6.41 | 0.69 | 14.29 | 4.48 |
| *Tax rates* | 20.30 | 23.33 | 10.26 | 5.52 | (19.05) | (33.58) |
| *Transport* | 3.76 | 0.00 | 3.85 | 1.38 | 4.76 | 0.00 |
| *%* | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| *N* | 133 | 120 | 78 | 145 | 147 | 134 |

Note: *The biggest obstacle to business operations per country is shown in parenthesis.*

**Table 2b:** Summary statistics by country

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Armenia | Azerbaijan | Georgia | Estonia | Latvia | Lithuania |
| Variables | % | % | % | % | % | % |
| *Fairness* | 26.32 | 50.00 | 50.00 | 68.97 | 36.73 | 29.10 |
| *Quick justice* | 49.62 | 47.50 | 37.18 | 15.86 | 12.93 | 10.45 |
| *Decision enforcement* | 70.68 | 65.00 | 64.10 | 69.66 | 51.02 | 67.91 |
| *Female owner (≥1)* | 37.59 | 15.83 | 41.03 | 41.38 | 51.70 | 40.30 |
| *Female top manager* | 12.03 | 3.33 | 19.23 | 23.45 | 31.97 | 13.43 |
| *Quality certification* | 27.82 | 23.33 | 16.67 | 27.59 | 27.21 | 18.66 |
| *Competition – informal* | 40.60 | 45.00 | 70.51 | 23.45 | 40.14 | 44.03 |
| *Management experience:* |  |  |  |  |  |  |
| *---0 to 1 year mgt. experience* | 1.50 | 0.00 | 0.00 | 2.07 | 1.36 | 1.49 |
| *---2 to 4 year mgt. experience* | 9.02 | 6.67 | 3.85 | 6.21 | 4.08 | 5.97 |
| *---5 to 10 year mgt. experience* | 33.83 | 28.33 | 23.08 | 22.76 | 21.77 | 24.63 |
| *---11+ year mgt. experience* | 55.64 | 65.00 | 73.08 | 68.97 | 72.79 | 67.91 |
| *Government subsidies* | 0.00 | 3.33 | 2.56 | 17.93 | 17.69 | 17.16 |
| *Possess overdraft facility* | 46.62 | 17.50 | 38.46 | 55.86 | 27.89 | 23.88 |
| *Possess credit/loan facility* | 46.62 | 20.00 | 47.44 | 62.76 | 65.31 | 67.91 |
| *Applied for new credit/loan* | 43.61 | 15.00 | 53.85 | 49.66 | 42.18 | 57.46 |
| *Total sales:* |  |  |  |  |  |  |
| *--- 0-100,000* | 0.75 | 42.50 | 37.18 | 0.00 | 17.01 | 8.21 |
| *--- 100,001-500,000* | 1.50 | 31.67 | 28.21 | 1.38 | 31.29 | 20.15 |
| *--- 500,001-1,000,000* | 2.26 | 11.67 | 14.10 | 4.14 | 15.65 | 10.45 |
| *--- 1,000,001+* | 95.49 | 14.17 | 20.51 | 94.48 | 36.05 | 61.19 |
|  |  |  |  |  |  |  |
| *Observations* | 133 | 120 | 78 | 145 | 147 | 134 |

**5. Empirical methodology**

In the start of section 5, we explain that we used the ordered probit estimation technique (see Wooldridge, 2002) to model access to finance and the court system in the Baltic States and South Caucasus countries. Briefly, this method is appropriate since our dependent variable involves more than two alternatives and is ordered. For example, previous studies have shown that using ordinary least squares (OLS) for ordered categorical data leads to misleading results (see, for example, Peel et al., 1998). We examined the association between access to finance (AF) obstacle and fairness (FN), speedy justice (SJ), enforcing judgment decision (JD), owner gender (OG) and the gender of top manager (GM) controlling for owner and firm characteristics (X). Respondents answered the following question: *How much**of an obstacle is access to finance [No obstacle, a Minor obstacle, a Moderate obstacle, a Major obstacle, or a Very severe obstacle]?* On the basis of the responses received, we constructed a variable that captured access to finance obstacle taking the values from 0 (no obstacle) to 4 (very severe obstacle), assigning the numeric values {0… 4}. The responses follow a logical order as found in ordered probit tradition. Therefore, the following ordered probit equation is relevant[[1]](#footnote-1):

$ AF\_{i}^{\*}=a\_{1}FN\_{i}+a\_{2}SJ\_{i}+a\_{3}JD\_{i}+a\_{4}OG\_{i}+a\_{5}GM\_{i}+β\_{1}X\_{i}+u\_{i}$ (1)

Where $ AF\_{i}^{\*}$ represent the latent variable denoting the unobserved likelihood of a firm *i* to face access to finance obstacle and *αi* (where *i*=1,…,N). Although $ AF\_{i}^{\*}$ is unobserved, we observe $AF\_{i}$ such that:

$AF\_{i}=j if γ\_{j-1}< AF\_{i}^{\*}\leq γ\_{j}$ (where *j*=0,..,4) (2)

The $γ$in (2) are threshold parameters to be estimated, while $X\_{i}$ in (1) is a row vector of owner and firm characteristics (see Table 2b).

The study also used a number of key explanatory variables to explain the dependent variable. Specifically, we used the legal or court system (fairness, quick justice, decision enforcement), financial (government subsidies, possess overdraft, possess credit/loan, applied for new credit/loan and total sales) and socio-economic (at least one female owner, female top manager, quality certification, competition with informal/unregistered firms and management experience) variables.

In the gender and other similar questions, a dichotomous variable was generated where ‘Yes’ response became 1 while ‘No’ response became 0. The ‘don’t know’ response was discarded. In the legal or court system variables, we generated dichotomous variable as we converted ‘Strongly disagree’ and ‘Tend to disagree’ into ‘disagree’ while ‘Strongly agree’ and ‘Tend to agree’ became ‘agree’. We then interpreted ‘agree’ as 1 and ‘disagree’ as 0 to produce binary outcomes. Further discussion on technical aspects of the method used in this paper can be found in Gujarati and Porter (2009), Borooah (2002) and McKelvey and Zavoina (1975).

 As a way to check ‘multicollinearity’, we employed variance inflation factor (VIF) and tolerance (1/VIF) on the model variables (Pevalin and Robson, 2012, p. 302; Gujarati and Porter, 2009, p. 340). Our multicollinearity check for the BEEPS data for all six countries selected for this research shows a Mean VIF of 1.20 and each of the VIF values are between 1.02 and 1.53. Also, the tolerance values for the BEEPS data for all six countries are between 0.9781 and 0.6545. Therefore, as the VIF < 10 and tolerance > 0.1, we suggest that multicollinearity is not a problem here.

**6. Empirical analysis and findings**

The empirical results in Table 3a and Table 3b show remarkable differences in access to finance and court systems in the Baltic States and South Caucasus countries. Although there are differences across the Baltic States and South Caucasus, there are similarities. The following empirical analysis is divided into two sub-sections made up of country and region.

**6.1 Country by country analysis**

The results are presented in Table 3a. In Estonia, the results show that businesses owned by at least one female are less likely to experience obstacles to access finance (i.e. the coefficient is found to be negative and statistically significant). Therefore, this supports hypothesis H3 (*Businesses with at least one female owner reduces the obstacle to SMEs accessing finance*). Hypotheses H1 and H2 are, however, rejected for Estonia because the coefficients are found to be statistically insignificant. Hypothesis H4 is also rejected for Estonia because the female top manager coefficient is also found to be statistically insignificant.

Although hypotheses H1, H2, H3 and H4 are rejected for Latvia, the results of this analysis provide some useful insights into access to finance obstacles faced by SMEs. Latvia is a country with a high level of competition from companies in the informal sector. This has a positive statistical relationship with ‘access to finance obstacle’. On the other hand, government subsidies reduce the obstacle to access finance with the coefficient being statistically significant. However, there is an increased obstacle in access to finance for firms which applied for new credit/loan facility with the estimated coefficient being statistically significant. Hence, the government may have engaged in subsidies to reduce the negative effect of the financial crisis on SMEs during 2007-2008. Prior research shows that the period of the financial crisis is characterised by uncertainties and reduced credit in the business environment as access to finance for SMEs is constrained (Cowling *et al*., 2012; Cornett *et al.*, 2011; Ivashina and Scharfstein, 2010; Klyviene and Rasmussen, 2010). The analysis finds that firms with high sales value have reduced access to finance obstacle, but the association is found to be weak. High sales value increases asset value and increases the chance of access to finance, including at times of economic uncertainty (Cowling *et al*., 2012).

For Lithuania we find that a female top manager increases the obstacle to access finance and the coefficient is found to be statistically significant. Therefore, this supports hypothesis H4 (*Businesses with a top female manager increases the obstacle to SMEs accessing finance*). There is also an increased obstacle in access to finance for firms that applied for a new credit/loan facility with the coefficient being statistically significant confirming the negative effect of the financial crisis on access to finance (Wrobel, 2015; Otarashvili, 2013; Phillips *et al*., 2012; Giuli, 2009). Hypotheses H1, H2 and H3 are rejected for Lithuania because they are empirically unsupported.

The result for Armenia shows that fairness reduces access to finance obstacle. Therefore, this supports hypothesis H1 (*Fairness in the court system reduces the obstacles to SMEs accessing finance*). The analysis for Armenia shows that there is a negative association between quick justice and the obstacle to finance; in other words, having quick justice reduces the probability of a finance obstacle. For Armenia therefore, hypothesis H1 is supported. This finding confirms existing research that an effective judicial system and financial sector development plays an important role in ensuring a positive access to finance for businesses and hence stronger entrepreneurship potential (Aggarwal and Goodell, 2014; Beck *et al*., 2008; Beck and Demirguc-Kunt, 2006; Laeven and Majnoni, 2005). As discussed in GEM (2015), one of the entrepreneurship framework conditions for successful business creation is a national policy on regulation and access to finance. On the basis of hypothesis H1, a reliable court system can improve national policy on regulation and access to finance. The compliance with the ENP (Chilosi, 2007) or EU membership will go a long way to support a viable national policy on regulation and better access to finance. Curiously, the analysis shows that Management experience has a positive, statistically significant relationship with access to finance obstacle. On the other hand, the larger the business in Armenia in terms of total sales, the weaker the access to finance obstacle. Therefore, firms with high sales value would increase their asset base to provide high collateral to support credit (Cowling *et al*., 2012). The strength in the legal regulatory system in Armenia, as described in hypothesis H1, points to coercive institutional isomorphism to show how external forces exert a dependence pressure towards access to finance for SMEs. In contrast, hypotheses H2, H3 and H4 are rejected for Armenia because their associated coefficients are found to be statistically insignificant.

Azerbaijan has fairness and decision enforcement in its court system but the coefficient is found to be statistically insignificant hence hypotheses H1 and H2 are rejected. Moreover, we find that Azerbaijan firms that possess a credit/loan facility increases access to finance obstacle with the estimated coefficient to be statistically significant. Finally, hypotheses H3 and H4 are rejected for Azerbaijan. Fairness and decision enforcement in the court system contribute to reduced obstacle in access to finance but with insignificant statistical association. There is increased obstacle in access to finance for female owned and female managed firms, but both coefficients are found to be statistically insignificant. Quality certification, informal sector competition and/or possessing over draft facility reduce the likelihood of obstacle in access to finance but again the coefficients are found to be statistically insignificant. However, we find that firms possessing a credit/loan facility experience increased access to finance obstacle, and the coefficient is found to be highly statistically significant.

The analysis for Georgia shows that quick justice reduces access to finance obstacle. However, the analysis also shows that competition from the informal sector increases the access to finance obstacle with statistical significance. This confirms the research of Aidis *et al.* (2007) that the activities of firms in the informal sector could not be ignored as they have a negative effect on access to finance for firms. Management experience has a positive and statistically significant relationship with increases in access to finance obstacle. This shows the constraining effect of the financial crisis as reported in previous research (Saridakis *et al.*, 2013; Smallbone *et al.*, 2012; Cornett *et al.*, 2011; Ivashina and Scharfstein, 2010). Similarly, we find that firms possessing a credit/loan facility experience are more likely to experience finance obstacle. In contrast, possessing overdraft facility is found to reduce the likelihood of reporting financial obstacle. Finally, high sales also increase access to finance obstacle with the coefficient being statistically significant. In sum, the analysis for Georgia shows that informal sector competition, management experience, possession of credit loan facility and high sales value did not yield positive result in access to finance. This can be attributed to the twin crises of 2007-2008 as there was war (Otarashvili, 2013; Phillips *et al.*, 2012; Giuli, 2009) and financial crisis (Mac an Bhaird, 2013; Milesi-Ferretti and Tille, 2010). Following the above together with the analysis, hypotheses H1, H2, H3 and H4 are rejected for Georgia because they are statistically unsupported.

The effects of coercive, normative and mimetic institutional isomorphism are relevant but have less pronounced levels of analysis for all the countries. Therefore, there is a mixed institutional environment causing a higher dependence effect of coercive institutional isomorphism, a medium in demand effect of normative institutional isomorphism and a low uncertain effect of mimetic institutional isomorphism.

**6.2. Region by region analysis**

We now turn to an inter-regional comparison between the Baltic States and the South Caucasus (Table 3b). In both Baltic States and South Caucasus regions, fairness in the court systems contributes to a reduction in access to finance being reported as a barrier. Therefore, in both Baltic States and South Caucasus regions, this supports hypothesis H1 (*Fairness in the court system reduces the obstacles to SMEs accessing finance*). However, we fail to provide any support for hypothesis H2. This reflects the effect of coercive institutional isomorphism to show how external forces (i.e. fairness in the court system) exert a dependence pressure towards access to finance for SMEs.

In the Baltic region, the analysis shows that firms with at least one female owner reduce the obstacle to access finance. Therefore, hypothesis H3 (*Businesses with at least one female owner reduces the obstacle to SMEs accessing finance*) is supported. However, having a female top manager statistically increases the obstacle to access finance for SMEs. Hence we find support for hypothesis H4 (*Businesses with top manager female increases the obstacle to SMEs accessing finance*). It follows that businesses demonstrating constraints in relation to accessing finance are more likely to have a female top manager. Firms owned by at least one female are less likely to experience access to finance obstacle. Support for hypotheses H3 and H4 confirms other research in various ways. Firstly, female entrepreneurs tend to have tighter access to bank credit but this becomes more relaxed with an established banking relationship (Bellucci *et al*., 2010). Secondly, female entrepreneurs have lower levels of confidence in their financial competency compared with males (Bowen and Hisrich, 1986). Thirdly, female entrepreneurs are affected by their cultural background with knock-on effects on their entrepreneurial capability (Aggarwal and Goodell, 2014; GEM, 2012). Fourthly, the mentality of the business owner or manager can impact on the organisational performance (Wijewardena *et al*., 2008). Indeed, given the self-reported lower levels of self-confidence and entrepreneurial capability, access to finance for their firms can become constrained. Therefore, in mimetic institutional isomorphism, there is an uncertainty effect where competitor forces and uncertain circumstances (e.g. the financial crisis of 2007-2008) could determine access to finance goal (Rupeika-Apoga, 2014; Nguyen and Qian, 2014; Saridakis *et al*., 2013; Popov and Udell, 2012;Smallbone *et al*., 2012; Ivashina and Scharfstein, 2010).

The results also show that there is a positive and statistically significant relationship between levels of informal sector competition and the access to finance obstacle in the Baltic Region. This confirms previous research. Distinguin *et al.* (2016) report that informal firms can represent a danger to registered firms in access to credit. Firms that possess an overdraft facility are significantly less likely to report access to finance as a barrier. In contrast, firms that possess a credit/loan facility have increased access to finance obstacle with statistical significance. In the context of the analysis presented, this may be attributed to the tight liquidity risk management of the banking institutions during the financial crisis (Cornett *et al.*, 2011). Firms that applied for new credit/loans experience an increased obstacle to access finance with the coefficient being statistically significant. The period of the financial crisis was characterised by credit constraints among both old and new firms. However, this constraint was greater for new firms (Cowling *et al.*, 2012). Firms that with lower total sales values increases the obstacle to access finance with statistical significance.

Higher levels of management experience in the South Caucasus region appear to increase the access to finance obstacle. In other words, the strong management experience of firms in this region does not provide the lead to improved access to finance. This contrasts with firms in the Baltic region. This may be a regional specific effect of the financial crisis (Mac an Bhaird, 2013; Milesi-Ferretti and Tille, 2010) and war (Otarashvili, 2013; Phillips *et al.*, 2012; Giuli, 2009). On the other hand, firms that possess an overdraft facility in this region are statistically less likely to report an access finance obstacle. This supports the liquidity risk management research by Cornett *et al.* (2011). In sum, for the South Caucasus regions, apart from the support for hypothesis H1, hypotheses H2, H3 and H4 are empirically unsupported.

Finally, when the model is estimated for all countries, we find strong support for hypothesis H1 and hypothesis H3. However, country and regional level studies provide more informative analysis especially from a policy perspective. There is a strong effect of coercive institutional isomorphism to show how external forces (e.g. the legal regulatory system) exert a dependence pressure towards access to finance for SMEs. However, the normative (e.g. professionalism and customer demands) and mimetic aspects (e.g. uncertainties) are relevant in the regions but in a lesser form than coercive institutional isomorphism.

**7. Discussion**

It is clear in the analysis that the financing experiences of SMEs in the Baltic States and South Caucasus countries are country-specific. Yet there are also some similarities. The crisis recorded in 2007-2008 contributed to the challenges that SMEs face in accessing finance across the Baltic States and South Caucasus countries. This effect appears to be contingent on the level of macro-economic development and financial integration with other countries (Milesi-Ferretti and Tille, 2010). Entrepreneurial ventures were also particularly affected (Popov and Udell, 2012). There also appears to be some regional specific factors. The Georgian war of 2008 contributed to its economic woes and access to finance challenges, with a negative impact on the South Caucasus region (Simão, 2012; Kakachia, 2011). Following the effect of the financial crisis in 2007-2008, local financial institutions experienced reduced credit but foreign-owned financial institutions based in CEE countries relied on their parent institutions based abroad to boost their credit availability (Popov and Udell, 2012; Brixiova *et al*., 2010). There is also a gender dimension to this analysis. Aidis *et al*. (2007) found that female entrepreneurs in Eastern Europe reported higher levels of financial constraints from formal sources than males. They also confirmed that formal sources of finance were not well developed; hence there was a higher level of reliance on informal sources. Dietz *et al*. (2012) also revealed the liquidity constraints during the financial crisis and the opportunity for improvement going forward. There is an increasing number of foreign bank ownership in Eastern European countries (Popov and Udell, 2012). Although the domestic banks suffered reduced credit availability in crisis times, the parent companies of foreign banks provided liquidity to the regions (de Haas and van Lelyveld, 2006).

There is a need to look at the informal institutional environment identified in Aidis *et al.* (2007). This has brought the informal institutions in transitional economies to the notice of the research community. The analysis in this paper finds that competition from the informal sector increases the likelihood of access to finance obstacle in all the Baltic States and South Caucasus regions (except Azerbaijan). Although informal sector competition exists in all the Baltic States and South Caucasus countries, it is highest in Georgia and lowest in Estonia. Distinguin *et al.* (2016) confirm that firms in the informal sector can adversely affect registered firms in access to finance and the effect is higher for countries with weak rules of law. The weakness in the rule of law points to coercive institutional isomorphism to show how external forces exert a dependence pressure towards access to finance for SMEs.

Although the analysis finds adverse effects on female entrepreneurs, the cultural disparity across the Baltic States and South Caucasus regions shows that gender characterisation in the regions is varied and complex. Gender entrepreneurship in the regions may not be explained by access to finance alone. The Baltic region shows that businesses demonstrating constraints in accessing finance are more likely to have a female top manager but firms owned by at least one female are less likely to encounter access to finance obstacles. These will hold true in a formal business environment characterised by healthy and unhindered competition synonymous with a fully free market economy. However, as our analysis in Table 2b shows that under a high level of informal sector competition and activities, it becomes very difficult to determine gender characterisation in entrepreneurship in the Baltic States and South Caucasus regions. Hence, in mimetic institutional isomorphism, there is an uncertainty effect where competitor forces and uncertain circumstances (e.g. the adverse effect on female entrepreneurs) could determine access to finance goal. On the other hand, in normative institutional isomorphism, there is a demand effect where professionalism and customer demand influence compliance towards access to finance goal. That is, if a business can maintain a high level of professionalism and satisfy customer demands, it could gain access to finance through greater competitive advantage.

The analysis also shows that fairness holds in the court system in both the Baltic States and South Caucasus regions. This suggests that strong entrepreneurship is encouraged in the regions. At country level, Armenia has a strong effect of fairness in the court system and hence, possesses the potential for better access to finance and entrepreneurship than the other countries in the regions. Therefore, the relevance of the institutional isomorphism framework is very pronounced in this research and while higher in coercive, it is less so in the normative and mimetic aspects.

**Table 3a:** Ordered Probit estimations of businesses with access to finance obstacle (country by country)

|  |  |  |
| --- | --- | --- |
|  | Baltic States | South Caucasus Countries |
| Independent variables | Estonia | Latvia | Lithuania | Armenia | Azerbaijan | Georgia |
| *Fairness (base category: No)* |  |  |  |  |  |  |
| ---Fairness (Control) | -0.2906(0.2357) | -0.2223(0.2070) | -0.0381(0.2220) | -0.6801(0.2510)\* \*\* | -0.3051(0.3710) | 0.0689(0.3056) |
| *Quick justice (base category: No)* |  |  |  |  |  |  |
| ---Quick justice [Control] | -0.5397(0.3418) | 0.3594(0.2849) | 0.0640(0.3218) | -0.5656(0.2362)\* \*\* | 0.1620(0.3578) | -0.8191(0.3362)\*\* |
| *Decision enforcement (base category: No)* |  |  |  |  |  |  |
| ---Decision enforcement [Control] | -0.0689(0.2367) | -0.0789(0.1989) | -0.1804(0.2068) | 0.0958(0.2431) | -0.0474(0.2666) | -0.0118(0.2826) |
| *Female owner (base category: No)* |  |  |  |  |  |  |
| ---Female owner (≥1) [Control] | -0.3986(0.2361)\* | -0.3292(0.2095) | -0.1896(0.2037) | -0.2121(0.2288) | 0.3372(0.2893) | 0.0672(0.3150) |
| *Female top manager (base category: No)* |  |  |  |  |  |  |
| ---Female top manager [Control] | 0.3984(0.2811) | 0.2503(0.2243) | 0.5673(0.3141)\*\*\* | -0.3363(0.3726) | 0.8636(0.5917) | -0.0640(0.4067) |
| *Quality certification (base category: No)* |  |  |  |  |  |  |
| ---Quality certification | -0.2385(0.2695) | 0.2461(0.2205) | 0.2319(0.2803) | -0.1186(0.2253) | -0.2506(0.2853) | 0.2419(0.3838) |
| *Competition – informal (base category: No)* |  |  |  |  |  |  |
| ---Competition - informal | 0.3758(0.2397) | 0.3237(0.1995)\* | 0.2228(0.1940) | 0.1325(0.1952) | -0.0804(0.2141) | 0.6033(0.3001)\*\* |
| *Management experience (base category: 1)* |  |  |  |  |  |  |
| ---Management experience | -0.0521(0.1548) | 0.0199(0.1499) | -0.1410(0.1482) | 0.3219(0.1452)\*\* | 0.0743(0.1693) | 0.6059(0.2781)\*\* |
| *Government subsidies (base category: No)* |  |  |  |  |  |  |
| ---Government subsidies | 0.2988(0.2981) | -0.5474(0.2799)\*\* | -0.1152(0.2644) | --- | 0.3804(0.5779) | 0.5195(0.8336) |
| *Possess overdraft facility (base category: No)* |  |  |  |  |  |  |
| ---Possess overdraft facility | -0.2931(0.2403) | 0.3221(0.2128) | -0.1014(0.2352) | 0.1090(0.2122) | -0.3504(0.3010) | -0.7880(0.3616)\*\* |
| *Possess credit/loan facility (base category: No)* |  |  |  |  |  |  |
| ---Possess credit/loan facility | -0.0845(0.2722) | 0.2743(0.2215) | 0.1526(0.2602) | 0.3896(0.2449) | 0.7455(0.2886)\* \*\* | 0.9311(0.4490)\*\* |
| *Applied for new credit/loan (base category: No)* |  |  |  |  |  |  |
| ---Applied for new credit/loan | 0.6181(0.2544)\*\* | 0.3865(0.2093)\* | 0.3839(0.2298)\*\*\* | 0.0703(0.2284) | 0.0738(0.3184) | -0.4963(0.4509) |
| *Total sales (base category: 0-100,000)* |  |  |  |  |  |  |
| ---0-100,000 | --- | 0.0011(0.2847) | 0.1371(0.3741) | 1.0658(1.1281) | 0.2746(0.3755) | 0.1711(0.4464) |
| ---100,001-500,000 | 0.4485(0.8340) | 0.0684(0.2565) | -0.2879(0.2851) | 1.1616(0.8188) | -0.0941(0.3628) | 0.6727(0.4447) |
| ---500,001-1,000,000 | 0.0401(0.5221) | -0.1845(0.2956) | -0.3421(0.3289) | -1.3457(0.7393)\* | -0.6131(0.4293) | 1.0114(0.4832)\*\* |
|  |  |  |  |  |  |  |
| Log likelihood | -144.2746 | -209.3208 | -198.1118 | -184.1660 | -171.5530 | -104.1229 |
| LR Chi2(15) | 22.64 | 26.99 | 16.58 | 40.89 | 23.31 | 27.10 |
| Prob>Chi2 | 0.0663 | 0.0288 | 0.3443 | 0.0002 | 0.0778 | 0.0279 |
| Pseudo R2 | 0.0728 | 0.0606 | 0.0402 | 0.0999 | 0.0636 | 0.1152 |
| Observation | 145 | 147 | 134 | 133 | 120 | 78 |

*Note:* *\*\*\*Statistically significant at the 1% level. \*\*Statistically significant at the 5% level. \*Statistically significant at the 10% level.*

*Standard errors are shown in parenthesis.* --- signifies No data. [Control] indicates control variables.

**Table 3b:** Ordered Probit estimations of businesses with access to finance obstacle (general and regional)

|  |  |  |  |
| --- | --- | --- | --- |
| Independent variables | Baltic region | South Caucasus region | All countries (general) |
| *Fairness (base category: No)* |  |  |  |
| ---Fairness [Control] | -0.2681(0.1165)\*\* | -0.3524(0.1520)\*\* | -0.3816(0.0885)\* \*\* |
| *Quick justice (base category: No)* |  |  |  |
| ---Quick justice [Control] | 0.0248(0.1668) | -0.2389(0.1508) | 0.0501(0.0978) |
| *Decision enforcement (base category: No)* |  |  |  |
| ---Decision enforcement [Control] | -0.0737(0.1140) | -0.0056(0.1405) | -0.0630(0.0872) |
| *Female owner (base category: No)* |  |  |  |
| ---Female owner (≥1) [Control] | -0.2903(0.1196)\*\* | -0.0537(0.1470) | -0.2411(0.0911)\* \*\* |
| *Female top manager (base category: No)* |  |  |  |
| ---Female top manager [Control] | 0.2754(0.1426)\* | -0.0917(0.2229) | 0.0876(0.1169) |
| *Quality certification (base category: No)* |  |  |  |
| ---Quality certification | 0.0713(0.1348) | -0.0813(0.1478) | 0.0315(0.0981) |
| *Competition - informal (base category: No)* |  |  |  |
| ---Competition – informal | 0.3263(0.1143)\* \*\* | 0.1623(0.1215) | 0.2619(0.0819)\* \*\* |
| *Management experience (base category: 1)* |  |  |  |
| ---Management experience | -0.0317(0.0802) | 0.3043(0.0961)\* \*\* | 0.0779(0.0603) |
| *Government subsidies (base category: No)* |  |  |  |
| ---Government subsidies | -0.1050(0.1522) | 0.3753(0.4404) | -0.1859(0.1369) |
| *Possess overdraft facility (base category: No)* |  |  |  |
| ---Possess overdraft facility | -0.1964(0.1207)\* | -0.2343(0.1432)\* | -0.1436(0.0901)\* |
| *Possess credit/loan facility (base category: No)* |  |  |  |
| ---Possess credit/loan facility | 0.3184(0.1350)\*\* | 0.5320(0.1574)\* \*\* | 0.2510(0.0973)\* \*\* |
| *Applied for new credit/loan (base category: No)* |  |  |  |
| ---Applied for new credit/loan | 0.4782(0.1254)\* \*\* | -0.0005(0.1549) | 0.2993(0.0957)\* \*\* |
| *Total sales (base category: 0-100,000)* |  |  |  |
| ---0-100,000 | 0.4420(0.1983)\*\* | 0.1345(0.1695) | 0.3697(0.1219)\* \*\* |
| ---100,001-500,000 | 0.3213(0.1547)\*\* | 0.0703(0.1712) | 0.2239(0.1126)\*\* |
| ---500,001-1,000,000 | 0.0606(0.1866) | -0.1787(0.2307) | 0.0028(0.1416) |
|  |  |  |  |
| Log likelihood | -580.7697 | -484.6149 | -1088.6488 |
| LR Chi2(15) | 63.39 | 46.83 | 87.10 |
| Prob>Chi2 | 0.0000 | 0.0000 | 0.0000 |
| Pseudo R2 | 0.0517 | 0.0461 | 0.0385 |
| Observation | 426 | 331 | 757 |

*Note:* *\*\*\*Statistically significant at the 1% level. \*\*Statistically significant at the 5% level. \*Statistically significant at the 10% level Standard errors are shown in parenthesis.* [Control] indicates control variables.

**8. Conclusion**

The importance of entrepreneurship in developing economies is widely recognised as governments seek to enhance their productive base, employment and income (Acs and Audrestch, 2003). However, economic development requires an appropriate legal system to enable businesses and entrepreneurs to function. The stage of market reform has also been shown to influence the distinctiveness of entrepreneurship and SME development. This article has sought to build upon this literature through an analysis of access to finance for SMEs and the court system among Baltic States and South Caucasus countries. It has done so by addressing four hypotheses using BEEPS data, set within an institutional framework.

The paper makes an original contribution to the literature by examining the intersection of access to finance and the legal system in developing economies. Our analysis highlights the significance of having good access to finance and a fair court system in encouraging entrepreneurship. Institutional theory provides a framework for coercive, normative and mimetic institutional isomorphism in the context of access to finance for SMEs. Coercive institutional isomorphism is found to exert a dependence on access to finance for SMEs. In coercive institutional isomorphism, formal and informal pressures are exerted by external organisations such as the government, legal regulatory authorities, banks and other lending institutions. These formal and informal pressures are imposed so as to ensure compliance as a dependency for successful access to finance goal. In contrast, mimetic institutional isomorphism exerts an uncertain effect on access to finance goal.

Overall, the analysis finds that the court system is an effective legal regulatory body measured by their level of fairness, impartiality and absence of corruption. There are remarkable differences in the access to finance and court systems between these countries as well as some similarities. In the Baltic States and South Caucasus regions, firms that report fairness, impartiality and an uncorrupted court system also have a reduced likelihood of reporting obstacles to accessing finance. However, we find a statistically weak association in which the court is able to enforce its decisions and there is evidence that the court process is slow. We suggest that an efficient court system can improve access to finance for businesses if parties in dispute are treated in a fair, impartial and in an uncorrupted way.

The research also finds a series of differences in responses at the country-level and by gender. Although access to finance is identified as an obstacle to business operations in all the Baltic States and South Caucasus countries, its strength is not universal. Other significant factors in the analysis include: an inadequately educated workforce in Estonia, high tax rates in Latvia and Lithuania, the practices of competitors in the informal sector in Armenia and political instability in Georgia.

We also find variations between Baltic States and South Caucasus countries in terms of the fairness, speed of justice and decision enforcement in their court systems. Overall, the perceived fairness of the court system tends to reduce obstacles to accessing finance. Firms owned by at least one female are less likely to report constraints in terms of accessing finance whilst those with females as their top managers are more likely to report constraints in terms of accessing finance. We deduce that if access to finance is not regarded as an obstacle to business operations and the court system is perceived as fair, this can positively influence the strength in the likelihood of entrepreneurship activity, including the period of post financial crisis.

These findings have implications for policy. First, it is clear that fairness in the court system provides an institutional pillar for further institutional development, entrepreneurship and market activity by enabling capabilities through the rule of law. Fairness in the court system can also attract foreign investors to a jurisdiction and improve private sector activity. Second, governments can formulate policies to target and support disadvantaged entrepreneurs and to improve their entrepreneurial participation (see for example, OECD, 2019). Although there is no clear, universal indication about the relationship between the gender circumstances of entrepreneurs and finance, the government can investigate localised and informal issues affecting access to finance. Third, the activities of the informal sector are found to inhibit formal entrepreneurship activities. In this regard, policy can help the formal private sector to develop through removing unnecessary regulatory burdens on new and established businesses. Governments should incentivise SMEs in the informal sector to pursue formal business operations and practices subsequently increasing their contribution to economic development and business growth. Finally, the results highlight the benefits of a fair court system and rule of law for potential and existing entrepreneurs, business practitioners and society, as they are associated with reduced barriers to access finance.

There are some limitations to the analysis. The BEEPS 2009 data used represents a cross-sectional dimension for 2009. This investigation cannot replace panel and longitudinal data capabilities that are able to report over long periods of time. There is also a time limitation to our analysis. It is possible that the Baltic States and South Caucasus countries have developed since 2009, beyond the period of war and financial crisis towards a more vibrant economy. The generalisability of this research must be treated with caution as different countries have their own make-up of law and regulatory environment. Nevertheless, this paper contributes to our understanding of entrepreneurship development in transition economies.

Future research is recommended in order to compare the Baltic States and South Caucasus countries in the immediate aftermath of the financial crisis using the BEEPS survey data for 2009 and the later, post financial crisis period using the BEEPS survey data for 2012-2016. The outcome of this research will reveal the variations in the strength of entrepreneurship during the immediate and later periods of the post financial crisis. Furthermore, given the significance of the underpinning institutional context, it is imperative that the investigation is extended to explore the relationship between legal systems, access to finance and entrepreneurship in other developing economies, to enable a more generalisable theoretical proposition.

**References**

Abdixhiku, L., Krasniqi, B., Pugh, G. and Hashi, I. (2017) Firm-level determinants of tax evasion in transition economies. *Economic Systems*, 41(3), 354-366.

Acs, Z. J. and Audretsch, D. B. (2003) *Innovation and Technological Change*. In: Acs Z.J., Audretsch D.B. (eds) Handbook of Entrepreneurship Research. International Handbook Series on Entrepreneurship, Vol 1. Springer, Boston, MA, 55-79.

Acs, Z. J., Desai, S. and Hessels, J. (2008) Entrepreneurship, economic development and institutions. *Small Business Economics,* 31(2–3), 219–234.

Aggarwal, R. and Goodell, J. W. (2014) Cross-national differences in access to finance: Influence of culture and institutional environments. *Research in International Business and Finance*, 31, 193-211.

Ahlstrom, D. and Bruton, G. D. (2010) Rapid institutional shifts and the co‐evolution of entrepreneurial firms in transition economies. *Entrepreneurship Theory and Practice*, *34*(3), 531-554.

Aidis, R., Welter, F., Smallbone, D. and Isakova, N. (2007) Female entrepreneurship in transition economies: The case of Lithuania and Ukraine. *Feminist Economics*, 13(2), 157-183.

Alili, M. Z. (2015) An empirical investigation of the effects of foreign direct investment on the skill intensity of host country employment. *Procedia Economics and Finance*, 26, 623-629.

Anderson, J. E. (2018) Economic reforms and their impacts on informal payments for government services in transition countries. *International Public Management Journal*, 21(1), 163-189.

Batsakis, G. K., (2014) Impediments on the way to entrepreneurship. Some new evidence from the EU's post-socialist world. *Journal of Small Business and Enterprise Development,* 21(3), 385-402.

Beck, T. and Demirguc-Kunt, A. (2006) Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance*, 30(11), 2931–2943.

Beck, T., Demirguc-Kunt, A., Laeven, L. and Maksimovic, V. (2006) The determinants of financing obstacles. *Journal of International Money and Finance*, 25(6), 932-952.

Beck, T., Demirguc-Kunt, A. and Maksimovic, V. (2008) Financing patterns around the world: Are small firms different? *Journal of Financial Economics*, 89(3), 467-487.

Bellucci, A., Borisov, A. and Zazzaro, A. (2010) Does gender matter in a bank-firm relationships? *Journal of Banking & Finance*, 34(12), 2968-2984.

Bernini, M. and Montagnoli, A. (2017) Competition and financial constraints: A two-sided story. *Journal of International Money and Finance*, 70, 88-109.

Bitzenis, A. and Nito, E. (2005) Obstacles to entrepreneurship in a transition business environment: the case of Albania. *Journal of Small Business and Enterprise Development*, 12(4), 564-578.

Borooah, V. K. (2002) *Logit and probit: Ordered and multinomial models*. Sage university paper series on quantitative applications in the social sciences, 07-138. Sage: Thousand Oaks, California.

Bowen, D. D. and Hisrich, R. D. (1986) The female entrepreneur: A career development perspective. *Academy of Management Review*, 11(2), 393-407.

Brixiova, Z., Vartia, L. and Wörgötter, A. (2010) Capital flows and the boom-burst cycle: The case of Estonia. *Economic Systems*, 34, 55-72.

Cai, L., Guo, R., Fei, Y. and Liu, Z. (2016) Effectuation, exploratory learning and new venture performance: Evidence from China. *Journal of Small Business Management*, 55(3), 388-403.

Chakravarty, S. and Xiang, M. (2013) The international evidence on discouraged small businesses. *Journal of Empirical Finance*, 20, 63-82.

Chilosi, A. (2007) The European Union and its neighbours: “Everything but Institutions”? *The European Journal of Comparative Economics*, 4(1), 25-38.

Chironga, M., Dahl, J., Goland, T., Pinshaw, G. and Sonnekus, M. (2012) Micro-, small and medium-sized enterprises in emerging markets: how banks can grasp a $350 billion opportunity, McKinsey. Available at:

<https://www.mckinsey.com/~/media/mckinsey/industries/financial%20services/our%20insights/tapping%20the%20next%20big%20thing%20in%20emerging%20market%20banking/micro_small_and_med_sized_enterprises_in_emerging_markets_full_report.ashx>

(accessed 03/07/2020)

Cieślik, J., Kaciak, E. and van Stel, A. (2018). Country-level determinants and consequences of overconfidence in the ambitious entrepreneurship segment. *International Small Business Journal*, 36(5), 473-499.

Copenhagen Criteria (1993) Press Release of European Council in Copenhagen. Available at: <http://europa.eu/rapid/press-release_DOC-93-3_en.htm> (accessed 20/01/2015).

Cornett, M. M., McNutt, J. J., Strahan, P. E. and Tehranian, H. (2011) Liquidity risk management and credit supply in the financial crisis. *Journal of Financial Economics*, 101(2), 297–312.

Cowling, M., Liu, W. and Ledger, A. (2012) Small business financing in the UK before and during the current financial crisis. *International Small Business Journal*, 30(7), 778–800.

Davis‐Sramek, B., Fugate, B. S., Miller, J., Germain, R., Izyumov, A. and Krotov, K. (2016) Understanding the present by examining the past: Imprinting effects on supply chain outsourcing in a transition economy. *Journal of Supply Chain Management*, 53(1), 65-86.

de Haas, R. and van Lelyveld, I. (2006) Foreign banks and credit stability in Central and Eastern Europe. A panel data analysis. *Journal of Banking & Finance*, 30(7), 1927-1952.

De Vita, L., Mari, M., and Poggesi, S. (2014) Women entrepreneurs in and from developing countries: Evidences from the literature. *European Management Journal*, *32*(3), 451-460.

Dietz, M., Homonnay, A. and Shvakman, I. (2012) What’s ahead for banking in Eastern Europe. Available at: http://www.mckinsey.com/industries/financial-services/our-insights/whats-ahead-for-banking-in-eastern-europe (accessed 24/12/2015).

Dimaggio, P. J. and Powell, W. W. (1983) The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *Am. Socio. Rev.*, 48(2), 147-160.

Distinguin, I., Rugemintwari, C. and Tacneng, R. (2016) Can informal firms hurt registered SMEs’ access to credit? *World Development*, 84, 18-40.

EBRD (2018) History of the EBRD. Available at: https://www.ebrd.com/who-we-are/history-of-the-ebrd.html (Accessed 08/12/2018).

EBRD-BEEPS (2010a) BEEPS data and documentation for 2009. Available at: <https://ebrd-beeps.com/data/2009/> (Accessed 08/12/2018).

EBRD-BEEPS (2010b) BEEPS 2008-2009: A report on methodology and observations. Available at: <https://www.ebrd.com/downloads/research/economics/beeps_report_ebrd_april10.pdf> (Accessed 08/12/2018).

EC (2014a) European neighbourhood policy and enlargement negotiations – Conditions for membership. Available at: <http://ec.europa.eu/enlargement/policy/conditions-membership/index_en.htm> (accessed 20/01/2015).

EC (2014b) Enlargement strategy and main challenges 2014-15. Available at:

<http://ec.europa.eu/enlargement/pdf/key_documents/2014/20141008-strategy-paper_en.pdf> (accessed 20/01/2015).

Estrin, S. and Mickiewicz, T. (2011) Entrepreneurship in transition economies: The role of institutions and generational change. In M. Minniti (Ed.), *The Dynamics of Entrepreneurial Activity*, Oxford University Press, Oxford, 293-338.

Ferrando, A. and Ruggieri, A. (2018) Financial Constraints and Productivity: Evidence from Euro Area Companies. *International Journal of Finance & Economics*, 23(3), 257-82.

Fuentelsaz, L., Maicas, J. P. and Montero, J. (2018). Entrepreneurs and innovation: The contingent role of institutional factors. *International Small Business Journal*, 36(6), 686-711.

Gama, A. P. M., Duarte, F. D. and Esperanca, J. P. (2017) Why discouraged borrowers exist? An empirical (re)examination from less developed countries. *Emerging Markets Review*, 33, 19-41.

GEM (2012) *Global entrepreneurship monitor report 2011*. Available at: <http://www.gemconsortium.org/report> (Accessed 22/04/2014).

GEM (2015) *Global entrepreneurship monitor report 2014*. Available at: <http://www.gemconsortium.org/report> (accessed 30/07/2015).

Giuli, M. (2009) Georgia and the systemic impact of the financial crisis. *Caucasian Review of International Affairs*, 3(3), 261-277.

Glover, J. L., Champion, D., Daniels, K. J. and Dainty, A. J. D. (2014) An institutional theory perspective on sustainable practices across the dairy supply chain. *International Journal of Production Economics*, 152, 102-111.

Gujarati, D. N. and Porter, D. C. (2009) *Basic econometrics*. McGraw-Hill International Edition: New York.

Gupta, V. K., Turban, D. B., Wasti, S. A. and Sikdar, A. (2009) The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. *Entrepreneurship Theory and Practice*, 33(2), 397–417.

Haggard, S. and Tiede, L. (2011) The rule of law and economic growth: Where are we? *World Development*, 39(5), 673-685.

Hughes, M. and Mustafa, M. (2016) Antecedents of corporate entrepreneurship in SMEs: Evidence from an emerging economy. *Journal of Small Business Management*, 55(S1), 115-140.

Hur, J., Raj, M. and Riyanto, Y. E. (2006) Finance and trade: A cross-country empirical analysis on the impact of financial development and asset tangibility on international trade. *World Development*, 34(10), 1728-1741.

IMF Survey (2014) Baltic countries see strong growth, but pitfalls remain. Available at: <https://www.imf.org/external/pubs/ft/survey/so/2014/car050714b.htm> (accessed 24/12/2015).

IMF Survey (2015a) Caucasus, Central Asia feel impact of adverse shocks. Available at: <http://www.imf.org/external/pubs/ft/survey/so/2015/car051915a.htm> (accessed 24/12/2015).

IMF Survey (2015b) Global implications of lower oil prices. Available at: <http://www.imf.org/external/pubs/ft/survey/so/2015/int071415a.htm> (accessed 24/12/2015).

Ivashina, V. and Scharfstein, D. (2010) Bank lending during the financial crisis of 2008. *Journal of Financial Economics*, 97(3), 319-338.

Kakachia, K. K. (2011) Challenges to the South Caucasus regional security aftermath of Russian-Georgian conflict: Hegemonic stability or new partnership? *Journal of Eurasian Studies*, 2(1), 15-20.

Khanna, M., Wimpey, J. S., Bruhn, M., Singh, S., Hommes, M. and Sorokina, A. (2017) MSME Finance GAP: Assessment of the Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets, Washington, D.C.: World Bank Group. Available at:

<https://www.ifc.org/wps/wcm/connect/03522e90-a13d-4a02-87cd-9ee9a297b311/121264-WP-PUBLIC-MSMEReportFINAL.pdf?MOD=AJPERES&CVID=m5SwAQA>
(accessed 03/07/2020).

Klyviene, V. and Rasmussen, L. T. (2010) Causes of financial crisis: The case of Latvia. *EKONOMIKA*, 89(2), 7-27.

Kõlves, K., Milner, A. and Värnik, P. (2013) Suicide Rates and Socioeconomic Factors in Eastern European Countries after the Collapse of the Soviet Union: Trends between 1990 and 2008. *Sociology of Health & Illness*, 35(6), 956-970.

Krasniqi, B. A. (2009) Personal, household and business environmental determinants of Entrepreneurship. *Journal of Small Business and Enterprise Development*, 16(1), 146-166.

Laeven, L. and Majnoni, G. (2005) Does judicial efficiency lower the cost of credit? *Journal of Banking & Finance*, 29(7), 1791-1812.

La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (1998) Law and finance. *Journal of Political Economy*, 106(6), 1113–1155.

Mac an Bhaird, C. (2013) Demand for debt and equity before and after the financial crisis. *Research in International Business and Finance*, 28, 105-117.

Maiti, M. (2018) Scope for alternative avenues to promote financial access to MSMEs in developing nation evidence from India. *International Journal of Law and Management*, 60(5), 1210-1222.

Mammadov, A. (2015) Azerbaijani workers reel from financial crisis. Available at: <http://www.silkroadreporters.com/2015/10/14/azerbaijani-workers-reel-from-financial-crisis/> (accessed 24/12/2015).

Manolova, T. S., Carter, N. M. and Gyoshev, B. S. (2006) Breaking the family and friends’ circle: predictors of external financing usage among men and women entrepreneurs in a transitional economy. *Venture Capital*, 8, 109-132.

March, J. G. and Olsen, J. P. (1984) The new institutionalism: Organizational factors in political life. *The American Political Science Review*, 78(3), 734-749.

McKelvey, R. and Zavoina, W. (1975) A statistical model for the analysis of ordinal level variables. *Journal of Mathematical Sociology*, 4(1), 103-120.

Meyer, J. W. and Rowan, B. (1977) Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.

Milesi-Ferretti, G. and Tille, C. (2010) The great retrenchment: International capital flows during the global financial crisis. *Graduate Institute of International and Development Studies Working Paper No. 18/2010.*

Nguyen, H. and Qian, R. (2014) Demand collapse or credit crunch for firms? Evidence from the World Bank’s financial crisis survey in Eastern Europe. *Journal of International Money and Finance*, 47, 125-144.

OECD (2006) *The SME Financing Gap; Volume 1, Theory and Evidence*. OECD, Paris.

OECD (2019) *The Better Entrepreneurship Policy Tool.* OECD, Paris. Available at: <https://betterentrepreneurship.eu/>

Otarashvili, M. (2013) Georgia and the global economic crisis. *Foreign Policy Research Institute*, Philadelphia, USA. Available at:

<http://www.fpri.org/research/transitions/recent-findings/georgia-global-econ-crisis> (accessed 24/12/2015).

Othman, S., Darus, F. and Arshad, R. (2011) The influence of coercive isomorphism on corporate social responsibility reporting and reputation. Social Responsibility Journal, 7(1), 119-135.

Peel, M.J., Goode, M.M.H. and Moutinho, L.A. (1998) Estimating Consumer Satisfaction: OLS versus Ordered Probability Models. *International Journal of Commerce and Management*, 8(2), 75-93.

Peng, M. W. (2003) Institutional transitions and strategic choices. *Academy of Management Review*, 28(2), 275-296.

Pevalin, D. and Robson, K. (2012) *The stata survival manual*. Open University Press: Maidenhead, UK.

Phillips, A. L., Tsabutashvili, D. and McCutcheon, A. L. (2012) Georgia on their minds: The impact of war and financial crisis on Georgian confidence in social and governmental institutions. *American Association for Public Opinion Research Annual Conference*, 5287-5301. Available at:

<https://www.amstat.org/sections/srms/proceedings/y2012/files/400208_500590.pdf> (accessed 24/12/2015).

Pissarides, F. (1999) Is lack of funds the main obstacle to growth? EBRD’s experience with small and medium sized business in Central and Eastern Europe. *Journal of Business Venturing*, 14(5-6), 519-539.

Pistor, K., Raiser, M. and Gelfer, S. (2000) Law and finance in transition economies. *Economics of Transition,* 8(2), 325–368.

Popov, A. and Udell, G. F. (2012) Cross-border banking, credit access, and the financial crisis. *Journal of International Economics*, 87(1), 147–151.

Roberts, R. (2015) *Finance for small and entrepreneurial business.* Routledge-ISBE Masters in Entrepreneurship, Abingdon: Routledge.

Rupeika-Apoga, R. (2014). Financing in SMEs: case of the Baltic States. *Procedia-Social and Behavioral Sciences*, *150*, 116-125.

Sandhu, N., Hussain, J. and Matlay, H. (2012) Barriers to finance experienced by female owner/managers of marginal farms in India. *Journal of Small Business and Enterprise Development*, 19(4), 640-655.

Sammut, D. (2013) Democratisation, modernisation and globalisation. The EU and the hard tasks facing the three South Caucasus nations. *Policy Brief,* European Policy Centre, Brussels, Belgium. Available at:

<http://www.epc.eu/documents/uploads/pub_3330_three_south_caucasus_nations.pdf> (accessed 12/12/2015).

Saridakis, G., Marlow, S. and Storey, D. J. (2014) Do different factors explain male and female self-employment rates? *Journal of Business Venturing*, 29(3), 345-362.

Saridakis, G., Mole, K. and Hay, G. (2013) Liquidity constraints in the first year of trading and firm performance. *International Small Business Journal*, 31(5), 520-535.

Sauka, A., and Chepurenko, A. (Eds.). (2017). *Entrepreneurship in Transition Economies: Diversity, Trends, and Perspectives*. Springer.

Sherer, S. A., Meyerhoefer, C. D. and Peng, L. (2016) Applying institutional theory to the adoption of electronic health records in the U.S. *Information & Management*, 53(5), 570-580.

Sidorkin, O. and Vorobyev, D. (2018) Political cycles and corruption in Russian regions. *European Journal of Political Economy*, 52, 55-74.

Simão, L. (2012) The problematic role of EU democracy promotion in Armenia, Azerbaijan and Nagorno-Karabakh. *Communist and Post-Communist Studies*, 45(1-2), 193-200.

Smallbone, D. and Welter, F. (2001) The distinctiveness of entrepreneurship in transition economies. *Small Business Economics*, *16*(4), 249-262.

Smallbone, D., Deakins, D., Battisti, M. and Kitching, J. (2012) Small business responses to a major economic downturn: Empirical perspectives from New Zealand and the United Kingdom. *International Small Business Journal*, 30(7), 754–777.

Smallbone, D., Welter, F., and Ateljevic, J. (2014) Entrepreneurship in emerging market economies: Contemporary issues and perspectives. *International Small Business Journal*, *32*(2), 113-116.

Stein, P., Goland, T. and Schiff, R. (2010) Two Trillion and Counting: Assessing the Credit Gap for Micro, Small, and Medium-size Enterprises in the Developing World, McKinsey & Company, IFC, World Bank Group. Available at:

<http://documents1.worldbank.org/curated/en/386141468331458415/pdf/713150WP0Box370rillion0and0counting.pdf> (accessed 03/07/2020).

Suny, R. G. (2010) The pawn of great powers: The East-West competition for Caucasia. *Journal of Eurasian Studies*, 1(1), 10-25.

Wang, J., Robson, P. and Freel, M. (2015) The financing of small firms in Beijing, China: exploring the extent of credit constraints. *Journal of Small Business and Enterprise Development*, 22(3), 397-416.

WBDB (2015) World Bank Doing Business database. Available at: <http://www.doingbusiness.org/> (accessed 30/07/2015).

Welch, J. and Ciner, C. (2004) Conducting business in Eastern Europe: Risk-Return perspectives of senior financial executives. *European Management Journal*, 22(2), 224-230.

Wijewardena, H., Nanayakkara, G. and De Zoysa, A. (2008) The owner/manager's mentality and the financial performance of SMEs. *Journal of Small Business and Enterprise Development*, 15(1), 150-161.

Williams, N. (2020). Moving beyond financial remittances: The evolution of diaspora policy in post-conflict economies. *International Small Business Journal*, 38(1), 41-62.

WJP (2014) Rule of Law Index 2014. World Justice Project, Washington DC. Available at: <http://worldjusticeproject.org/sites/default/files/files/wjp_rule_of_law_index_2014_report.pdf> (accessed 30/07/2015).

Wooldridge, J. M. (2002) *Econometric Analysis of Cross Section and Panel Data*. MIT Press: Massachusetts.

World Bank (2015) Doing business report 2015 – Going beyond efficiency. New York: World Bank.

Wrobel, R. (2015) From independence to the Euro introduction: Varieties of capitalism in the Baltic States. *Central and Eastern European Journal of Management and Economics*, 3(1), 9-38.

Yang, Z. and Su, C. (2014) Institutional theory in business marketing: A conceptual framework and future directions. *Industrial Marketing Management*, 43(5), 721-725.

Yao, Y. and Yueh, L. (2009) Law, finance, and economic growth in China: An introduction. *World Development,* 37(4), 753–762.

Yasar, M., Paul, C. J. M. and Ward, M. R. (2011) Property rights institutions and firm performance: A cross-country analysis. *World Development*, 39(4), 648-661.

Zsidisin, G. A., Melnyk, S. A. and Ragatz, G. L. (2005) An institutional theory perspective of business continuity planning for purchasing and supply management. *International Journal of Production Research*, 43(16), 3401-3420.

**Appendix**

**Table A1:** Strength of Legal Rights index (SLRi)

|  |  |  |
| --- | --- | --- |
| Regions | Countries | SLRi |
| Baltic | Estonia | 7 |
|  | Latvia | 9 |
|  | Lithuania | 6 |
| South Caucasus | Armenia | 5 |
|  | Azerbaijan | 2 |
|  | Georgia | 9 |
| Benchmark | Germany | 6 |
|  | UK | 7 |
|  | USA | 11 |

*Note: Germany, UK and USA are used for benchmarking purpose.*

*SLRi stand for ‘strength of legal rights index’ recorded from 0 (lowest) through 12 (highest). The World Bank introduced the strength of legal rights index to measure the degree to which collateral and bankruptcy laws can facilitate lending. The index provides a way to protect the rights of borrowers and lenders in financial contracts.*

Source: WBDB (2015), World Bank (2015)

**Table A2:** Variables, questions, survey response and use

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **Questions** | **Survey response** | **Use** |
| Access to finance obstacle*[D]* | How much of an obstacle is access to finance? | [No obstacle, a Minor obstacle, a Moderate obstacle, a Major obstacle, or a Very severe obstacle] | 0 – No obstacle1 – Minor obstacle2 – Moderate obstacle3 – Major obstacle4 – Very severe obstacle |
| Fairness *[C]* | The court system is fair, impartial and uncorrupted? | [Strongly disagree] [Tend to disagree][Tend to agree][Strongly agree] | 0 – [Strongly disagree or Tend to disagree]1 – [Strongly agree or Tend to agree] |
| Quick justice *[C]* | The court system is quick? | [Strongly disagree] [Tend to disagree][Tend to agree][Strongly agree] | 0 – [Strongly disagree or Tend to disagree]1 – [Strongly agree or Tend to agree] |
| Decision enforcement *[C]* | The court system is able to enforce its decisions? | [Strongly disagree] [Tend to disagree][Tend to agree][Strongly agree] | 0 – [Strongly disagree or Tend to disagree]1 – [Strongly agree or Tend to agree] |
| Female owner (≥1) *[C]* | Are any of the owners female? | [Yes/No] | 0 – No1 – Yes |
| Top manager female *[C]* | Is the top manager female? | [Yes/No] | 0 – No1 – Yes |
| Management experience *[I]* | How many years of experience working in this sector does the top manager have? | Number | 1 - 0 to 1year2 – 2 to 4 years3 – 5 to 10 years4 – 11+ years |
| Quality certification *[I]* | Does this establishment have an internationally-recognized quality certification? | [Yes/No] | 0 – No1 – Yes |
| Competition-unregistered/informal *[I]* | Does this establishment compete against unregistered or informal firms? | [Yes/No] | 0 – No1 – Yes |
| Government subsidies *[I]* | Over the last 3 years, has this establishment received any government subsidies | [Yes/No] | 0 – No1 – Yes |
| Possess overdraft facility *[I]* | At this time, does this establishment have an overdraft facility | [Yes/No] | 0 – No1 – Yes |
| Possess line of credit or loan *[I]* | Does this establishment have a line of credit or loan from a financial institution? | [Yes/No] | 0 – No1 – Yes |
| Applied for new loans/lines of credit *[I]* | In last fiscal year, did establishment apply for new loans/lines of credit? | [Yes/No] | 0 – No1 – Yes |

Notes: *[I] Independent variable; [C] Control variable; [D] Dependent variable*

**Table A3:** Correlation Matrix for both Baltic States and South Caucasus Regions

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 1 | 1.0000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | -0.1816 | 1.0000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | -0.0425 | 0.3354 | 1.0000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | -0.0734 | 0.2608 | 0.2700 | 1.0000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | -0.0815 | -0.1025 | -0.0971 | -0.0737 | 1.0000 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | -0.0227 | -0.0900 | -0.0839 | -0.0620 | 0.4090 | 1.0000 |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 | -0.0530 | -0.0351 | -0.0520 | 0.0561 | 0.0537 | 0.0609 | 1.0000 |  |  |  |  |  |  |  |  |  |  |  |
| 8 | -0.0261 | 0.0557 | -0.0089 | 0.0309 | 0.0422 | -0.0840 | 0.0700 | 1.0000 |  |  |  |  |  |  |  |  |  |  |
| 9 | 0.1648 | -0.0653 | 0.0207 | -0.0475 | -0.0611 | -0.0826 | -0.0284 | -0.0322 | 1.0000 |  |  |  |  |  |  |  |  |  |
| 10 | 0.0483 | -0.0095 | -0.0436 | -0.0216 | 0.0029 | -0.0651 | -0.0592 | -0.0565 | 0.0189 | 1.0000 |  |  |  |  |  |  |  |  |
| 11 | -0.0637 | 0.1122 | -0.0982 | -0.0208 | 0.0427 | -0.0262 | 0.0500 | 0.2338 | 0.0026 | -0.0156 | 1.0000 |  |  |  |  |  |  |  |
| 12 | -0.0433 | 0.0874 | 0.0039 | 0.0030 | 0.0248 | -0.0164 | 0.0967 | 0.1385 | 0.0050 | -0.0513 | 0.0933 | 1.0000 |  |  |  |  |  |  |
| 13 | 0.1104 | 0.0202 | -0.0841 | -0.0168 | -0.0063 | -0.0554 | 0.0590 | 0.1426 | 0.0330 | -0.0508 | 0.1892 | 0.2912 | 1.0000 |  |  |  |  |  |
| 14 | 0.1339 | -0.0275 | -0.0919 | 0.0082 | 0.0412 | -0.0854 | 0.0333 | 0.1149 | 0.0276 | -0.0223 | 0.0758 | 0.2396 | 0.5271 | 1.0000 |  |  |  |  |
| 15 | 0.0885 | 0.0108 | 0.0643 | -0.0656 | -0.0073 | 0.0315 | -0.1329 | -0.0963 | 0.1358 | 0.0196 | -0.0771 | -0.2085 | -0.2048 | -0.1906 | 1.0000 |  |  |  |
| 16 | 0.0669 | -0.0913 | -0.0126 | -0.0179 | -0.0470 | 0.0247 | 0.0106 | -0.1693 | 0.0765 | 0.0459 | -0.1183 | -0.1244 | -0.1277 | -0.1076 | -0.1512 | 1.0000 |  |  |
| 17 | -0.0201 | -0.0153 | -0.0458 | 0.0013 | -0.0214 | 0.0289 | -0.0021 | -0.0441 | 0.0042 | 0.0168 | 0.0206 | -0.0478 | -0.0055 | -0.0170 | -0.1376 | -0.1512 | 1.0000 |  |
| 18 | -0.1048 | 0.0721 | -0.0102 | 0.0611 | 0.0545 | -0.0592 | 0.0901 | 0.2279 | -0.1611 | -0.0599 | 0.1362 | 0.2772 | 0.2522 | 0.2328 | -0.4930 | -0.5420 | -0.3709 | 1.0000 |
| Observations: 757 |

*Notes: 1 Access to finance obstacle[D]; 2 Fairness[C]; 3 Quick justice[C]; 4 Judgment enforcement[C]; 5 Any owners female[C]; 6 Top manager female[C]; 7 Formally registered[I]; 8 Management experience[I]; 9 Quality certification[I]; 10 Compete with unregistered or informal firms[I]; 11 Government subsidies[I]; 12 Overdraft facility[I]; 13 Credit or loan from a financial institution[I]; 14 Applied for new loans/lines of credit[I]; 15 Sales 0 - $10000[I]; 16 Sales 100001 – $500000[I]; 17 Sales 500001 - $1000000[I]; 18 Sales $1000001+[I].*

*[I] Independent variable*; *[C] Control variable; [D] Dependent variable*

1. We use probit estimation technique for robustness check. In this regard, we construct a variable capturing access to finance obstacle that takes the value of 1 for no obstacle and 0 otherwise. We find that the results are similar to those reported from the ordered probit regression. [↑](#footnote-ref-1)