

# The institutional environment for international entrepreneurship in Russia: Reflections on growth decisions and performance in SMEs

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**Abstract** The paper examines the interrelationships among the domestic institutional environment for entrepreneurship, a firm's innovation capability, and an SME's decision to grow using an internationalization or innovation-based strategy. The effects of both the external institutional environment and the internal dynamic capabilities on the firm's subsequent performance are evaluated. Cross-sectional cross-industry data from 188 Russian SMEs were collected in order to address these issues. The results suggest that the initial decision of an SME to pursue an internationalization strategy is influenced by conditions in the cognitive institutional environment and the SME's internal ability to innovate. The initial decision to pursue innovation-based growth, however, is affected only by a firm's internal factors. However, the growth outcome depends on the normative institutional environment, in other words on favorable societal attitudes to the phenomenon of international entrepreneurship. The paper demonstrates the complexity of institution-based and resource-based factors that affect SME growth in emerging economies, and provides recommendations concerning strategic policy objectives.

**Keywords** Institutional environment for entrepreneurship · International entrepreneurship · Innovation capability · Emerging economy · Russia

## Introduction

Recent studies revealing the research agenda in international entrepreneurship (IE) emphasize the importance of institutional differences across emerging economies and their impact on variables such as resources, capabilities, strategies, and performance (Kiss et al. 2012). The institutional framework in emerging economies holds a number of challenges for entrepreneurs establishing a new business or engaging in international operations. The potential shortcomings are related to the influence of

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home macro-economic conditions, underdeveloped regulations, taxation policies, and, in some cases, unfavorable societal attitudes towards entrepreneurship (Smallbone and Welter 2012).

In order to sustain economic growth in emerging economies, and particularly in Russia, where the extraction of natural resources still provides the highest GDP contribution, it is important to focus attention on growth-oriented small and medium-sized enterprises (SMEs). Encouraging SMEs to grow consequently leads to growth, innovation, and employment in the economy (Wennekers and Thurik 1999). Emerging economies are known for being highly entrepreneurial, but their innovativeness and international growth aspirations are often hampered by the existing institutional constraints. The role of the government as a change agent in such an environment is to create a favorable institutional framework that will enable SMEs to overcome the existing institutional barriers and thus to support the innovation and internationalization aspirations of entrepreneurs.

The empirical focus of the study on Russia provides an important contribution to the existing literature in the IE domain, as up-to-date knowledge on the entrepreneurial internationalization of Russian SMEs remains scarce. Governmental policies in Russia have traditionally favored the participation of bigger enterprises in the international commodity trade. However, while the country's institutional framework for small business entrepreneurship transforms over time (World Bank 2013), the discussion of the policy-driven incentives for entrepreneurial internationalization of smaller firms becomes a particularly timely topic.

In compliance with this research agenda, the study aims to extend the up-to-date theoretical and empirical knowledge on the internationalization-based and innovation-based growth strategies of SMEs from emerging economies, and the effect of their domestic institutional environments on growth decisions and subsequent performance. We therefore address the following research question: *How does the institutional environment in Russia affect the entrepreneurial internationalization of local SMEs, and how is this effect reflected in the performance of Russian SMEs?* More specifically, we investigate how the institutional environment affects schemas of entrepreneurial behavior that foster the decision to grow through internationalization and innovation, and what the implications are for organizational performance. In contrast to several previous studies that apply institutional theory in the context of internationalization in Russian SMEs, we go beyond the application of a single dimension of the three-pillar institutional framework (Shirokova and Tsukanova 2012) or aggregated measure utilization (Tsukanova and Shirokova 2012). This study encompasses a more nuanced view of the relationship between the entrepreneurial activity and the country-level institutional environment, including its regulatory, normative, and cognitive dimensions (Scott 2008). Our findings suggest that the firms that have higher levels of entrepreneurial knowledge and capabilities are more likely to internationalize, though not necessarily to achieve higher international performance. In order to achieve a higher performance in terms of innovation output and success in foreign markets, the firms should overcome the existing normative constraints related to social attitudes to entrepreneurship in the home country and should consider the potential normative distance between the domestic and foreign target markets.

The study is structured as follows. First, we describe the theoretical foundations of institutional theory as applied to organizational studies, and its embeddedness in the

domains of international business and entrepreneurship. Second, we draw on the existing literature on international entrepreneurship, explaining the particular relevance of institutional theory to studies on SME growth in emerging economies. Third, we develop hypotheses that are tested on a sample of survey data collected from 188 Russian SMEs. The empirical part of the study gives insights into the effect of the institutional environment on the growth strategies and subsequent performance of SMEs in emerging economies. The results obtained are discussed, conclusions are drawn, and suggestions for further research are provided. The study concludes with some policy recommendations.

## Theoretical background

### Institutional theory and international business

In line with the basic idea of organizational legitimacy, institutional theory found its place in the theoretical discussion on multinational enterprises. Studies related to the cross-cultural aspects of multinationals' involvement in international operations, patterns of entry mode, the legitimacy of foreign subsidiaries, and other internationalization-related issues are widely represented in the literature on management, strategy, and international business.

Kostova and Dacin (2008) list several purposes of applying institutional theory in contemporary studies of multinational corporations. The institution-based view enables a country-level conceptualization of the national institutional environments (Kostova and Roth 2002). It helps to address the processes of large-scale transformations at national level, referring to the notion of institutional transformation and path dependence (Hoskisson et al. 2000; Wright et al. 2005; Peng 2002). Institutional theory also enables a comparative view of the national business systems through the prism of the institutional framework (Casper and Whitley 2004; Whitley 2000). It explains the existence of the constraints imposed on the firms' actions and structures and provides rationales for the choice of the most effective MNC strategies (Hitt et al. 2004; Yiu and Makino 2002; Davis et al. 2000). Research on institutions helps to address the constraints related to the institutionalization of organizational practices across the MNC's units (Kostova and Roth 2002) and to explain the phenomena of liability of foreignness and a firm's legitimacy in a host country (Kostova and Zaheer 1999; Zaheer and Mosakowski 1997).

However, the application of institutional theory to the analysis of internationalization strategies of multinational enterprises does not incorporate a comprehensive theoretical perspective. A multi-faceted theoretical view of strategy development and of performance achieved should also account for industry-based competition, organizational resources and capabilities, and challenges related to the institutional structure. These three perspectives constitute what Peng et al. (2008) call a "strategy tripod."

Peng et al. (2008) position the institution-based view on the internationalization of a firm as the "third leg" of the strategy tripod, complementing the resource- and industry-based views. According to the resource-based view (Barney 1991), firm-specific resources and capabilities determine the firm's strategic behavior and

consequently its performance. The industry-based view (Porter 1980), on the other hand, emphasizes the influence of industry conditions on the firm's strategic decisions and activity outcomes. Finally, the institution-based view focuses on the importance, particularly in the context of emerging economies, of the formal and informal institutional influences on business strategy and firm performance (Hoskisson et al. 2000; Wright et al. 2005).

### Institutional theory and entrepreneurship

Studies on the strategic choices and organizational performance of smaller enterprises constitute a core of literature on entrepreneurship, relating to institutional influence on entrepreneurial success (Eunni and Manolova 2012; Gupta et al. 2012a, b; Smallbone and Welter 2012; Bruton et al. 2010; Aidis et al. 2008; Peng 2006). Although the resource-based view of a firm (Barney 1991) has traditionally been dominant in the entrepreneurship domain, institutional theory has increased in influence during the last decade or so (Bhide 2000; Hoskisson et al. 2000). Scholars admit that, given the crucial importance of organizational resources and capabilities, the external impact of culture, legislation, traditions, and behavioral schemas in society have a major influence on entrepreneurial activities (Baumol et al. 2009). In addition, whereas a bigger enterprise can decide whether to adapt its international strategy to existing institutional constraints or to change the institutions, a small enterprise is likely to follow the established rules of the game due to its lack of resources and market power.

There are three streams based on institutional theory in contemporary entrepreneurship research (Bruton et al. 2010). The first of these concerns the institutional setting, meaning that firms are either constrained or empowered by the institutions in their operational environment (e.g., Valdez and Richardson 2013; Stenholm et al. 2013; Gohmann 2012; Gupta et al. 2012a, b; Gomez-Haro et al. 2011; Bruton and Ahlstrom 2003; Scott 2008). The institutional environment in this context includes direct actions in maintaining an environmental framework that is conducive to entrepreneurship, establishing social norms and ideas about entrepreneurship as a phenomenon and providing access to the knowledge sources required for starting a new business. The second stream focuses on companies' legitimacy, which is defined as the right to exist and perform in a certain way (e.g., Ivy 2013; Suchman 1995). The emphasis in the third stream is on institutional entrepreneurship or the development of the institutional framework by entrepreneurs in order to better structure their business collaboration (e.g., Kalantaridis and Fletcher 2012; Smallbone and Welter 2012; Wiklund et al. 2011). This study contributes to the first of these streams. It identifies how the institutional environment for entrepreneurship in Russia influences the growth opportunities for local SMEs and their subsequent performance.

### Institutional theory as one of the theoretical lenses in international entrepreneurship

Institutional theory has been widely used in research on entrepreneurship (Bruton et al. 2010) but has not yet established a strong niche in international entrepreneurship studies. Given that IE as a field incorporates knowledge from the domains of international business, entrepreneurship, and strategic management, it is not

surprising that the key theoretical foundations of the field lie in the resource-based, knowledge-based, dynamic capabilities, and industry-based views of the internationalization process (Zucchella and Scabini 2007). According to Keupp and Gassmann's (2009) recent review of contemporary publications in IE, neo-institutional theory is almost totally neglected (it is applied in one study out of the 179 reviewed). One explanation for this lack of theoretical perspective could be the heavy focus in IE on theories of international business rather than on the "classical" entrepreneurship perspective (Keupp and Gassmann 2009).

However, the discussion on the application of neo-institutional theory in IE is gaining momentum (Kiss et al. 2012). This is related to the increased interest in the internationalization strategies of SMEs from emerging economies. There is scant information about the phenomenon in the existing literature. Research inclined towards entrepreneurship has produced studies related to the imperfect regulatory system, "mental models," and attitudes towards entrepreneurship in the former centrally planned economies (Manev and Manolova 2010); political instability and weak policy formulation (Bostyn 2003); governmental support of entrepreneurship (Demirbas 2009); and institutional transformation. On the other hand, research within the domain of international business keeps the focus on multinational enterprises entering emerging markets, or "emerging heroes" venturing into developed economies. Given this research gap, scholars call for more research on institutional differences across emerging markets and their impact on SME resources, capabilities, strategies, and performance (Kiss et al. 2012).

### Institutional theory and entrepreneurial internationalization in Russia

The majority of IE research in emerging markets (60 %) focuses on comparing the antecedents, characteristics, and outcomes of domestic entrepreneurship and international activities of firms across borders (CE branch<sup>1</sup>) (Kiss et al. 2012). The remaining 40 % of the studies provide insights into the patterns of international actors' behavior, meaning the internationalization-based growth of firms in emerging economies (IA branch<sup>2</sup>). IE studies in the Russian context do not seem to follow this pattern. Most of the published articles either provide a domestic perspective on entrepreneurship development (type A, Entrepreneurship, Jones et al. 2011) or compare the characteristics of domestic entrepreneurship across several countries (type B, Jones et al. 2011). There are no comparative entrepreneurial internationalization studies in the Russian context (type C, Jones et al. 2011).

Existing studies report explicit investigations into the development of entrepreneurship in Russia during the 20 years of transition (e.g., Manev and Manolova 2010; Aidis et al. 2008; Djankov et al. 2005), the personal characteristics of Russian entrepreneurs (Seawright et al. 2008; Stewart et al. 2003; Ardichvili 2001; Kuznetsov and McDonald 2000), networking, social contracting and trust among Russian entrepreneurs (McCarthy and Puffer 2008; Batjargal 2007; Jansson and

<sup>1</sup> CE—comparative entrepreneurship branch (Kiss et al. 2012), corresponds to type B and C studies in the review by Jones et al. (2011)

<sup>2</sup> IA—international actors branch (Kiss et al. 2012), corresponds to type A studies in the review by Jones et al. (2011)

Sandberg 2008; Hutchings and Michailova 2006; Welter et al. 2004), and the effect on entrepreneurship of shortcomings in the institutional environment (Ahlstrom and Bruton 2010; Puffer et al. 2010; Tonoyan et al. 2010; Puffer and McCarthy 2001). However, only a few recent publications deal with the phenomenon of entrepreneurial internationalization (type A, Internationalization, Jones et al. 2011) (see, e.g., Shirokova and Tsukanova 2012 (in Russian); Tsukanova and Shirokova 2012; Zashev and Dezhina 2010; Tovstiga et al. 2004).

Shirokova and Tsukanova (2012) found that a negative perception of the corporate tax rate, difficulties in getting permits, and corruption hamper internationalization, while an overall negative perception of the tax legislation, political instability, and a negative perception of the judicial system in the home country push a firm to venture abroad. Tsukanova and Shirokova (2012) identified a negative effect of institutional hostility caused by the behavior of government, social organizations, and unions on the internationalization propensity of Russian firms. Zashev and Dezhina (2010) report a general absence of international opportunity recognition and exploitation among Russian entrepreneurs, as well as a lack of emphasis on international commercialization of innovations on the part of the Russian government.

In order to further develop understanding of the entrepreneurial internationalization of SMEs from emerging economies, previous IE field reviews have made a number of suggestions. Firstly, multi-faceted analysis, applying theories from international business, entrepreneurship, and other related fields, would ensure the external legitimacy and cross-fertilization of the research (Keupp and Gassmann 2009; Coviello and Jones 2004). Secondly, there is a call for more studies focusing on the effects of unique institutional environments on entrepreneurs' propensity to internationalize, and on the outcomes of the internationalization process in emerging economies (Kiss et al. 2012). Thirdly, more field researches using primary data are recommended (Kiss et al. 2012).

## Hypothesis development

International and innovation-based growth among SMEs from emerging economies

Recent studies in the fields of management (Nadkarni and Barr 2008), international business (Nadkarni and Perez 2007), and entrepreneurship (Mitchell et al. 2000; Seawright et al. 2008) emphasize the linkage between the institutional environment, entrepreneurial schemas, and firm-level action related, for example, to internationalization and innovation-based growth. According to Kiss et al. (2012), the propensity to internationalize is affected by the institutional environment and varies across geographical regions in emerging markets. Both internationalization and innovation-based growth are susceptible to institutional influence. These strategies are related to a significant resource commitment under conditions of uncertainty. They require legitimacy and are guided by entrepreneurial cognition.

Institutions play an important role in market economies, supporting the functioning of market mechanisms. They facilitate the effective functioning of market transactions without incurring excessive costs and risks (North 1990). There is a notable absence of strong market-supporting institutions in emerging economies (Meyer et al.

2009), and this constitutes a significant challenge for local firms starting international operations. Well-developed domestic regulatory policies can encourage firms to internationalize their operations (Buckley et al. 2007), while pressure from governmental agencies, underdeveloped legislation, and corruption can discourage SMEs from internationalization (Shirokova and Trukanova 2012; Tovstiga et al. 2004). A positive perception of the normative institutional environment, meaning the degree to which a country's residents admire entrepreneurial initiatives, supports internationalization by SMEs. According to earlier research findings, entrepreneurs who have experience of internationalization in their professional environment are more likely to venture abroad themselves (Chen and Yu 2008). In addition, SMEs with more knowledge about foreign markets tend to be more internationally oriented (Filatotchev et al. 2009). Some SMEs from emerging economies are not even aware of the opportunities in foreign markets and are highly suspicious of them (Zashev and Dezhina 2010). Thus, we hypothesize that:

- H1 *An SME's propensity to internationalize is positively influenced by a favorable perception of the (a) regulatory, (b) normative, and (c) cognitive components of the institutional profile for entrepreneurship in emerging economies.*

Influences on entrepreneurial decisions from the institutional environment may result in different strategic choices. Research results suggest that institutional isomorphic processes may produce diverse outcomes (Szyliowics and Galvin 2010). Entrepreneurs, especially in emerging economies, are known for being innovative. However, their propensity to innovate may vary, depending on the conditions in the external institutional environment. It is a paradox that some companies have strong R&D but a low level of innovation, and it may be that institutional theory can shed light on this and provide an explanation for the poor innovation performance (Delmas 2002). The innovation process is highly reliant upon national and sub-national institutions that provide support for innovation development (Lundvall 1998). There are several dimensions of the institutional environment that potentially influence the organizational proclivity to innovate: regulatory inflexibility, attitudes towards uncertainty and risk, and cognitive barriers related to difficulties with knowledge acquisition (Delmas 2002).

Stenholm et al. (2013) report that the domestic regulatory environment positively and significantly influences the rate of entrepreneurial activities in the country. Djankov (2002) states that entrepreneurial intention is known to be stronger in environments where regulatory burdens are not excessive. Liu et al. (2008) found that the normative dimension of the institutional environment shows a positive significant relationship with the technological performance of technology transfer. Gomez-Haro et al. (2011) provided evidence of the positive influence of normative and cognitive institutional environments on a firm's innovativeness and proactiveness, respectively. Spencer and Gomez (2004) found that the cognitive dimension of the institutional environment is positively associated with high-impact entrepreneurship. Thus, drawing on these earlier findings, we hypothesize that:

- H2 *An SME's propensity to innovate is positively influenced by a favorable perception of the (a) regulatory, (b) normative, and (c) cognitive components of the institutional profile for entrepreneurship in emerging economies.*



Strategic behavior in emerging economies could also be explained in terms of firm-specific capabilities (Peng et al. 2008). Consideration of dynamic capabilities is critical, not only because small companies may lack certain specific skills (Tovstiga et al. 2004) but also because the external environment in these rapidly growing economies is changing quickly. Dynamic capabilities cover a broad range of company competencies that could be integrated and reconfigured in order to accommodate the rapidly changing environment (Teece et al. 1997). For entrepreneurial SMEs, innovation capability is one of the critical factors affecting domestic (Fan 2006) and international (Knight and Cavusgil 2004) success. In the domestic context, it stimulates the scale and scope of innovation activities, and in an international context, it results in the “born-global” phenomenon (Gabrielsson and Kirpalani 2004). Firms with an innovation culture and the related knowledge and capabilities become early adopters of internationalization (Knight and Cavusgil 2004).

H3 *An SME's propensity to internationalize is positively influenced by its innovation capability.*

H4 *An SME's propensity to innovate is positively influenced by its innovation capability.*

The results of research on the internationalization performance of SMEs from emerging economies are so far inconclusive (Filatotchev et al. 2009). In particular, the relationship between internationalization and performance in Central and Eastern Europe has not been extensively studied (Kiss et al. 2012). Earlier results suggest that the relationship between the decision to internationalize and the actual international performance may be influenced not only by the age, size, and resources of the firms in question but also by the characteristics of individual entrepreneurs and the institutional environment (Filatotchev et al. 2012). Comparative studies between countries in earlier and later stages of transition show that the latter (e.g., Poland) have better institutional conditions for entrepreneurship than the former (e.g., Russia) (Aidis et al. 2008). Some of the factors that contribute to the lower favorability of the institutional environment are corruption (Tonoyan et al. 2010), low ethical standards (Bucar et al. 2003), and a low locus of control (Kaufmann et al. 1995). In addition, international business scholars have identified the maturity of the home country's legal system and financial institutions, and government programs and policies supporting entrepreneurship development, as factors affecting the linkage between internationalization and international performance. Factors in the institutional environment may also affect innovation performance: in environments with weak institutional structures, performance could be endangered by a violation of intellectual property rights, ineffective contract enforcement, and a lack of political and economic stability (Balsmeier and Czarnitzki 2012). However, the development of adequate innovation policies at national or regional level leads to better innovation performance (Tödttling and Trippel 2005).

H5 *An SME's international performance is positively influenced by a favorable perception of the (a) regulatory, (b) normative, and (c) cognitive components of the institutional profile for entrepreneurship in emerging economies.*

H6 *An SME's innovation performance is positively influenced by a favorable perception of the (a) regulatory, (b) normative, and (c) cognitive components of the institutional profile for entrepreneurship in emerging economies.*



Earlier research results highlight the need to cross the borders of specific disciplines and enhance knowledge about SME performance among emerging economies by bridging institutional theory and the knowledge-based view (Filatotchev et al. 2009). Some scholars argue that capabilities are a mediator linking the resources and performance of entrepreneurial firms in emerging economies (Lu et al. 2010). As in the case of making the initial decision to grow, firm-specific capabilities play a vital role in the achievement of performance goals. Firms in emerging economies may be seriously constrained by a deficiency in capability (Lee et al. 2001), which, in turn, could affect the performance indicators. For firms in emerging economies, innovativeness seems to be positively related to performance (Keskin 2006).

- H7 *An SME's international performance is positively influenced by its innovation capability.*
- H8 *An SME's innovation performance is positively influenced by its innovation capability.*

All the hypotheses described above are included in the research model below (see Fig. 1).

## Methodology

### Sample and data collection

Survey data were collected in Russia from autumn 2011 to winter 2012. A sample comprising Russian manufacturing and service companies with less than 500 employees (SBA U.S. Small Business Administration 2012), a turnover of less than 50 million euros, and located in the North West region of Russia was retrieved from the Amadeus database. The geographical scope of the study was defined by the proximity of the region to the border with the European Union and thus by an interest in uncovering obstacles to realizing the region's potential in driving international collaboration. A paper-based questionnaire was developed for the purpose of data collection. The key-informant technique was used to identify suitable respondents, who were initially approached by telephone and then met in person. These respondents held positions such as chief executive officer or business development manager. The initial sample of 912 SMEs yielded 200 responses (22 % response rate).

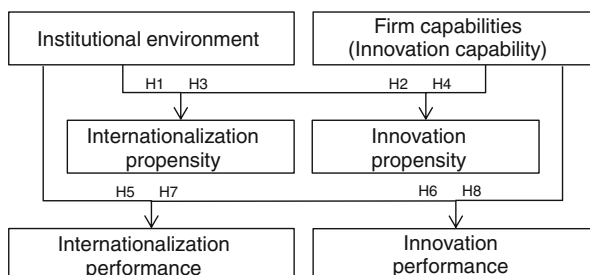


Fig. 1 Research model

Following checks on the limitations imposed on the applicable dataset, such as company size, turnover, and location, a number of observations were omitted. The final dataset included responses from 188 Russian SMEs. The questionnaire was constructed in English, but distributed to the companies in Russian. In order to ensure an accurate translation, we employed a rigorous back-translation technique, as suggested by Brislin (1980): a bilingual researcher checked the translated version for content and face validity (see Engelen et al. 2009).

### Measurement of the key construct

In order to measure the effect of the *institutional environment*, we applied the “country institutional profile for entrepreneurship (CIPE)” scale developed by Busenitz et al. (2000). The CIPE construct reflects regulatory (*REG*), normative (*NORM*), and cognitive (*COGN*) facets of the institutional environment for entrepreneurship and has been tested on samples of business students from developed and emerging economies (Gray and Cuevas 2005; Manolova et al. 2008; Eunni and Manolova 2012; Gupta et al. 2012a). The construct consists of 13 items measured on a seven-point Likert scale. In order to check the reliability and validity of the CIPE construct in the Russian context, we examined the latent variable, conducting a confirmatory factor analysis (CFA) using LISREL 8.80 software. Assessment of the original measurement construct showed that the item REG2 had very low squared multiple correlations (0.249), which explained the very low proportion of the underlying latent variable. The item was consequently dropped. The rest of the  $R^2$  indicators exceeded 0.581. After the model had been re-run, two pairs of items—NORM1 and NORM 2, and COGN1 and REG3—showed the largest positive standardized residual values (3.217 and 3.475, respectively). Thus, the items NORM1 and COGN1 were excluded. After that, all the loadings of the indicators on their respective factors were significant at the  $p < 0.10$  level (Appendix 1, Table 8). Table 1 below shows the fit indices of the final model.

Table 2 compares our results with the model fit statistics of previous studies applying the CIPE construct in the context of emerging (or transitional) economies and includes the original scale assessment. All the studies extracted three factors based on the results of a confirmatory factor analysis. Manolova et al. (2008) found that the original construct of 13 items was reliable and valid for emerging economies. By way of comparison, Gupta et al. (2012a) tested the CIPE invariance in their study, based on Cronbach’s alpha estimation, and only reported the overall reliability for each country. The construct was found to be structurally invariant and partially measurement invariant. The significant Chi-square test results suggested that items NORM3 and NORM4 were non-invariant. According to the authors, cultural

**Table 1** Latent variable CFA information

Variable	Items	$\chi^2$ ( <i>df</i> )	CFI	NFI	GFI	IFI	RMSEA
CIPE	10	45.683* (32)	0.990	0.968	0.954	0.991	0.0474

\* $p < 0.05$

Table 2 Comparison of the model statistics

Indicator	Busenitz et al. (2000) original scale	Manolova et al. (2008)	Gupta et al. (2012a)	Gupta et al. (2012b)	Our study
Sample	GER, ITA, NOR, ESP, SWE, USA	LAT, BUL, HUN	BRA, IND, CHN, KOR	KOR, UAE	RUS
Scale reliability					
$\alpha$ REG	0.76	0.75		0.83	
$\alpha$ NORM	0.81	0.80		0.77	
$\alpha$ COGN	0.68	0.81		0.75	
$\alpha$ Overall	0.78	0.79	BRA, 0.78 CHN, 0.78 IND, 0.64 KOR, 0.78	0.83	
REG CR/AVE	Not reported				0.89/0.67
NORM CR/AVE					0.88/0.71
COGN CR/AVE					0.82/0.61
Overall CR/AVE					0.98/0.66
Goodness-of-fit					
$\chi^2$ (df)	206.59** (62)	144.58** (62)	389.22 (244)	136.06** (62)	45.683* (32)
$\chi^2/df$	3.33	2.33	1.59 <sup>a</sup>	2.20	1.43
CFI	0.94	0.92	0.93	0.97	0.99
NFI	0.91	0.87	Not reported	0.95	0.97
GFI	0.95	Not reported	0.93	0.94	0.95
IFI	0.94	0.92	Not reported	0.97	0.99
RMSEA	0.06	0.07	0.03	0.06	0.05

BRA Brazil, BUL Bulgaria, CHN China, ESP Spain, GER Germany, HUN Hungary, ITA Italy, IND India, KOR South Korea, LAT Latvia, NOR Norway, RUS Russia, SWE Sweden, UAE United Arab Emirates, USA United States of America;  $\alpha$  Cronbach's alpha, CR composite reliability, AVE average variance extracted,  $\chi^2$  Chi-square, df degrees of freedom, CFI comparative fit index, NFI normed fit index, GFI Goodness-of-fit index, IFI incremental fit index, RMSEA root mean square error of approximation

\* $p < 0.05$ , \*\* $p < 0.01$

<sup>a</sup> Own calculation

differences in attitudes to entrepreneurship in the countries concerned may have caused the identified lack of invariance. In their later study, Gupta et al. (2012b) successfully tested the reliability and convergent and discriminant validity of the CIPE construct. All loadings of the indicators on their respective factors were significant at the  $p < 0.01$  level. The model fit indices were acceptable for both samples individually (South Korea and United Arab Emirates), although the multi-group analysis did not support the measure invariance.

In our study, the construct reliability on all dimensions exceeded the recommended level of 0.60, and therefore, the model provides a reliable measurement. Measures of extracted variance on all dimensions also exceeded the suggested cutoff of 0.50. In summary, the assessment of the model provided good evidence of construct reliability. However, all the correlations between the three extracted factors were non-significant, which means that the convergent validity of the CIPE construct is not accepted in the Russian context. This absence of convergent validity indicates that these three dimensions of the institutional environment in Russia are unlikely to constitute the aggregated institutional profile for entrepreneurship. In other words, the dimensions developed in the literature do not adequately capture the institutional environment in the country. Gupta et al. (2012b) addressed this issue in their earlier study on South Korea and the United Arab Emirates. Nevertheless, the CIPE construct remains the most highly developed and commonly applied measurement instrument, capturing the institutional effect on business activities in the field of organizational research. In order to counteract the potential consequences of the lack of convergent validity in our research, we treat the CIPE dimensions as separate constructs (variables) and do not summate them into an aggregated scale. We give more explicit suggestions for overcoming the scale shortcomings in “Limitations and suggestions for future research.”

Our study also includes a measure of *institutional distance* (*REGDIST*, *NORMDIST*, *COGNDIST*), which is calculated based on the difference between the institutional-environment scores in the home country and the host country for first market entry. First, we calculated the distances as continuous variables: a negative distance referred to less favorable conditions for entrepreneurship in Russia than in the host country and a positive distance referred to more favorable conditions in Russia. Second, we manually re-coded the distances as binary variables, giving a value of 1 if negative and a value of 0 if there was no distance or it was positive.

We measured *innovation capability* (*INNCAPAB*) on a summated seven-point Likert scale consisting of 14 items reflecting the novelty of the firm’s products, services, and technology in comparison with its major competitors. The scale is based on criteria that were conceptualized and applied in earlier studies conducted by Miller and Friesen (1982), Deshpande et al. (1993), and others: the number of innovations, the speed of innovation, the level of innovativeness, and the leading position in the market. Prajogo et al. (2007) used the scale earlier, but we adapted and enhanced it, adding the novelty of services dimension. Cronbach’s alpha for the scale was 0.92.

*International and innovation propensity* (the initial decision on whether to internationalize and innovate or not) was measured as two dummy variables referring to the existence of any type of international operations in a firm and turnover coming from innovation activities, respectively. *International performance* (*INTPERF*) was

measured on a summated scale capturing the entrepreneur's evaluation of the success of the firm's international operations in terms of scale, scope, and general satisfaction. The seven-item Likert scale was developed by Sullivan (1994) and is widely applied in international business studies as a subjective measure of a firm's performance. Cronbach's alpha was 0.89. *Innovation performance (INNPERF)* was measured on a multi-item seven-point Likert scale that includes seven items reflecting an increase in the ratio of a company's new products, services, and production techniques, as well as its innovation superiority among its competitors during the previous seven years (Tamayo-Torres et al. 2010). Cronbach's alpha for the scale was 0.88. See Appendix 1 for the wording of all the measures.

*International experience (INTEXPIR)* was measured as the number of years during which a company had been engaged in international operations since the year of its first foreign-market entry. The *age* of the firms was measured as at the time of the survey, in 2011, and their size in terms of the three dummy variables micro-(1–10 employees), small- (11–99 employees), and medium-sized (100–500 employees).

## Results

### Descriptive statistics and correlations

Table 3 presents the descriptive statistics indicating the number of observations, the minimum and maximum values of the variables, and their means and standard deviations. A number of companies included in the analysis ( $n=25$ ) represented the former governmentally owned enterprises that were privatized after 1987, when the Central Committee of the Communist Party of the Soviet Union issued a decree allowing the establishment of private enterprises. The industry composition of the sample was as follows: metal industry (17.3 %), forestry (18.3 %), construction (24.1 %), electronics (5.2 %), chemicals (8.9 %), ICT (1 %), food (3.7 %), R&D and other knowledge-intensive services (17.2 %), and miscellaneous (4.2 %). Low-technology firms (<1 % turnover spending on R&D) comprised 39.8 % of the research sample. Medium-technology (1–4 % turnover spending on R&D) and high-technology (>4 % turnover spending on R&D) comprised 12.6 and 33 %, respectively. The majority of the high-tech SMEs were located in the Saint Petersburg region (81 %), while the mid-tech and low-tech firms were distributed evenly across Saint Petersburg, Leningrad, and other regions of North West, such as Novgorod, Pskov, Republic of Karelia, and the Republic of Komi.

Of the SMEs analyzed, 46.07 % had international operations at the time of the survey and 53.93 % operated on the domestic market. The average age at internationalization was 8.5 years, and the average foreign sales reached within 3 years of internationalization were 35 %. The average age of the internationalized SMEs was 19 ( $M=19$ ). The firms had, on average, 9.5 years of international experience, meaning that they first set up their domestic operations and, after achieving a strong position in the market, they then expanded internationally. Of the internationalized SMEs, 22 % were born-global (Knight et al. 2004): there was an average 1-year gap between establishment and internationalization ( $M=1.00$ ), and on average, 3 years after internationalization, 62 % of their sales were foreign ( $M=61.58$ ). The majority

**Table 3** Descriptive statistics

	<i>N</i>	Min	Max	Mean	SD
Age	191	1.00	90.00	18.07	16.56
Size	188				
Micro	25	13.3 %			
Small	143	76.1 %			
Medium	20	10.6 %			
Turnover (€M <sup>a</sup> )	126	0.01	38.45	3.44	6.15
Foreign sales (% in total turnover)	191	0.00	100.00	14.64	26.87
Innovation-based sales (% in total turnover)	191	0.00	100.00	38.34	42.05
Radical innovations	191	0.00	100.00	12.60	26.76
Incremental innovations	191	0.00	100.00	25.66	36.57
INNCAPAB	191	0.64	6.64	3.46	1.25
INTEXPIR	191	0.00	36.00	4.40	6.52
REG	191	1.00	5.50	2.06	1.03
NORM	191	1.00	7.00	3.30	1.57
COGN	191	1.00	7.00	3.15	1.32
INNPERF	191	0.50	6.50	3.12	1.37
INTPERF	88	1.00	7.00	4.50	1.36

<sup>a</sup> The data are converted from roubles based on the exchange rate of the European Central Bank on 20 July 2012 (1€=39.0160 roubles)

of the born-global firms used non-equity-based entry modes (i.e., direct export). The turnover is given in million euros, although the variable in the original questionnaire was calculated in roubles. The missing values in the data were sufficiently few to allow their imputation in accordance with the series mean method.

Table 4 presents the correlations among the key variables included in the analysis. Interestingly, of the three dimensions of the institutional environment, the regulative correlates most highly with the other variables. There are significant positive correlations between the regulatory and normative environments and international and innovation performance, as well as innovation capability. The cognitive environment is significantly positively correlated with innovation capability and the propensity to internationalize, and both innovation capability and international experience show a positive correlation with international and innovation performance. Innovation-related capabilities have a strong relationship with innovation performance, whereas international competencies are tightly linked with the results of international operations. Both performance measures seem to be positively correlated.

#### The initial growth decision

In order to investigate the influence of the external institutional environment for entrepreneurship and internal innovation capability on the SME's strategic decision making (whether or not to internationalize and innovate), we conducted a series of

**Table 4** Correlation matrix

	1	2	3	4	5	6	7	8	9	10
1.AGE	1									
2.INNCAPAB	-0.047	1								
3.INTEXPIR	0.252***	0.234***	1							
4.INNPROCL	0.011	0.365***	0.022	1						
5.INTPROCL	0.054	0.267***	0.726***	0.098	1					
6.REG	-0.054	0.123*	0.029	0.100	-0.010	1				
7.NORM	-0.006	0.123*	-0.003	-0.027	0.024	0.369***	1			
8.COGN	0.016	0.148**	0.109	0.076	0.147**	0.218***	0.316***	1		
9.INNPERF	-0.132*	0.691***	0.153**	0.357***	0.165**	0.128*	0.162**	0.064	1	
10.INTPERF	-0.033	0.293***	0.333***	-0.006	- <sup>a</sup>	0.226**	0.369***	0.118	0.288***	1

<sup>a</sup> Cannot be computed because the INTPROCL variable in this case is constant

\* $p < 0.10$ ; \*\* $p < 0.05$ ; \*\*\* $p < 0.01$



binary logistic regressions (Table 5). Models 1–3 represent the predictive constructs for internationalization propensity. According to the Chi-square test results, model 3 was significant: the log-odds per standard deviation ratio confirmed a significant classification (log-odds/SD=2.37). Moreover, cognitive aspects of the institutional environment (i.e., knowledge and risk aversion among entrepreneurs) had an effect on internationalization propensity at the 10 % level of significance. The significance of the factor was higher in model 2 ( $p=0.04$ ), although the model itself was not significant. This means that the institutional factors were not sufficient in themselves to determine the propensity, although when estimated together with innovation capability, both factors had a significant impact on the growth strategy. Hence, the results provide partial support for hypothesis 1 (only the cognitive dimension, i.e., H1(c)). It also seems that companies with greater innovation capability are more prone to international ventures, which supports hypothesis 3. Neither the age nor the size of the firm had a statistically significant effect on the internationalization decision.

Models 4–6 represent the predictive constructs for innovation propensity. Model 6 turned out to be significant: the log-odds per standard deviation ratio confirmed a significant classification (log-odds/SD=4.12). According to the logistic regression results (model 6), micro-SMEs are particularly unlikely to show innovation-based growth. The institutional environment did not seem to have a statistically significant effect on the propensity of Russian SMEs to innovate; thus, there was no support for hypothesis 2. SMEs with greater innovation capability tended to be more prone to market expansion through innovation growth, thereby supporting hypothesis 4.

### Performance implications

In order to investigate the influence of both the external institutional environment for entrepreneurship and the internal innovation capability on the international and innovation performance of SMEs, we carried out a series of linear regression tests (Table 6). Models 1–3 represent the predictive constructs for internationalization performance. The effective sample size applied was equal to 88, as only this number of firms in the sample had international operations. According to variance inflation factors (VIF) estimation, none of the three models showed multicollinearity ( $VIF < 2.90$ ). The Durbin–Watson test of first-order autocorrelation in the residuals was also satisfactory ( $d=1.92$ ). Given the results (model 3), normative aspects (i.e., acceptance of and a positive attitude to entrepreneurship in society) had a significant effect on international performance at the 1 % level of significance. Hence, the results provided partial support for hypothesis 5 (i.e., H5(b)). International experience was also a significant predictor of international performance: the more experience a firm has of foreign operations, the better it will perform. Innovation capability had a significantly positive effect at the 5 % level, which supports hypothesis 7. Age and size did not have any significant impact on international performance.

Models 4–6 represent the predictive constructs for innovation performance. No multicollinearity problems were identified ( $VIF < 1.88$ ), and no autocorrelation was found, based on the Durbin–Watson test results ( $d=2.01$ ). According to the linear regression results, the normative dimension of the institutional environment seems to affect innovation performance. Although the relationship was significant only at the

**Table 5** Binary logistic regression results, internationalization, and innovation-based growth, H1–H4

Variables	Internationalization proclivity			Innovation proclivity		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Constant)	-0.25 (0.44)	-0.55 (0.64)	-1.71 (0.76)	0.14 (0.44)	-0.16 (0.64)	-2.04 (0.81)*
AGE	0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.00 (0.01)
SMALL	0.03 (0.44)	-0.11 (0.45)	-0.42 (0.47)	0.45 (0.44)	0.42 (0.45)	0.02 (0.48)
MED	0.85 (0.64)	0.74 (0.67)	0.30 (0.71)	1.57 (.72)**	1.43 (.74)*	0.98 (0.81)
REG		-0.11 (0.17)	-0.17 (0.17)		0.16 (0.17)	0.09 (0.19)
NORM		-0.03 (0.11)	-0.05 (0.11)		-0.12 (0.11)	-0.17 (0.12)
COGN		0.25 (.12)**	0.24 (0.13)*		0.09 (0.12)	0.05 (0.14)
INNCAPAB			0.46 (0.14)***			0.79 (0.16)***
INTEXPIR	-	-	-			-0.04 (.03)
Chi-square	3.000	7.510	19.204***	5.411	7.417	36.186***
Nagelkerke $R^2$	0.021	0.052	0.130	0.038	0.052	0.237
Cox and Snell $R^2$	0.016	0.039	0.097	0.028	0.039	0.175
Hosmer–Lemeshow	8.353	3.070	10.704	9.778	3.771	5.770
% correct	56.4	61.2	59.0	61.7	62.2	68.1

Note: Standard errors are in parentheses; tests are two-tailed

$N=188$  for models 1–6

\* $p<0.10$ ; \*\* $p<0.05$ ; \*\*\* $p<0.01$

**Table 6** Linear regressions results, internationalization, and innovation performance, H5–H8

Variables	International performance			Innovation performance		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Constant)	4.86 (0.43)*** (0.44)	3.35 (0.66)***	2.30 (0.65)***	2.92 (0.29)***	2.38 (0.42)***	0.61 (0.35)*
AGE	-0.01 (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.02 (0.01)***	-0.01 (0.01)**	-0.01 (0.00)**
SMALL	-0.34 (0.45)	-0.28 (0.43)	-0.54 (0.40)	0.51 (0.29)*	0.55 (0.29)*	0.09 (0.22)
MED	0.19 (0.65)	-0.36 (0.66)	-0.41 (0.59)	1.28 (0.42)***	1.12 (0.43)**	0.32 (0.33)
REG		0.13 (0.18)	0.03 (0.16)		0.09 (0.11)	0.01 (0.08)
NORM		0.29 (0.10)***	0.27 (0.09)***		0.12 (0.07)*	0.08 (0.05)
COGN		0.05 (0.12)	0.07 (0.11)		-0.03 (0.08)	-0.08 (0.06)
INNCAPAB			0.25 (0.11)**			0.73 (0.06)***
INTEXPIR			0.08 (0.02)***			0.01 (0.01)
F	0.555	2.385**	5.142***	4.262***	2.974***	22.090***
F change		4.153***	11.547***		1.642	72.398***
R <sup>2</sup>	0.019	0.150	0.342	0.065	0.090	0.497
Adj. R <sup>2</sup>	-0.016	0.087	0.276	0.050	0.060	0.474

N=88 for models 1–3, N=188 for models 4–6

\*p<0.10, \*\*p<0.05, \*\*\*p<0.01

10 % level in model 5, it provides partial support for hypothesis 6 (i.e., H6(b)). In model 6, the effect of the normative environment was slightly below the 10 % significance level ( $p=0.106$ ). Innovation capability had a strong and significant effect on innovation performance, thereby supporting hypothesis 8. International experience did not have a significant effect on SME innovativeness, however. The younger SMEs seemed to perform better, although the magnitude of the impact was very small. The size of the SME played a significant role in its achieved innovation performance: the bigger the firm, the more successful it was (model 5).

In order to provide a more detailed explanation of the influence of the institutional environment on SME performance, we conducted additional series of linear regression tests. We included three new variables to capture the effect of the institutional distance between the home and host countries' institutional environments (REGDIST, NORMDIST, COGNDIST) (Table 7). We then carried out the analyses separately, due to the constraints on sample size related to the international performance measure. In this extended analysis, the regulatory (REG) and cognitive (COGN) environment variables were omitted, due to their insignificant influence in the previous set of regression tests (Table 6). The effective sample size was equal to 65 observations. Models 1–3 represent the predictive constructs for international performance. According to the linear regression results, the normative dimension of the institutional environment remains significant, and in addition, a normative-distance variable also has a significant impact on international performance. Given that the NORMDIST variable was coded as a dummy, it should be interpreted as follows. If the institutional distance between Russia and the host country is negative (coded as 1; Russian institutional conditions are less favorable for entrepreneurship), the international performance of Russian SMEs operating abroad will be better. However, if it is positive (coded as 0; the Russian institutional environment is more favorable for entrepreneurship), the international performance will be worse. It is worth noting that the innovation-capability variable in model 3 became insignificant, meaning that when the institutional distance between the domestic and foreign markets is taken into account, the importance of internal innovation capability diminishes.

Models 4–6 represent the predictive constructs for innovation performance. According to the linear regression results, neither a normative institutional environment nor a normative institutional distance had a significant impact on innovation performance. These results are in line with the previous series of regression analyses (Table 6). The explanatory power of all six models slightly decreased in comparison with the previous set of regressions (Table 6). The decrease in  $R^2$  was expected because several explanatory variables were omitted. However, an increase in  $R^2$  is visible in model 3 when the institutional-distance variables are added.

## Discussion

### Growth decisions and performance implications

Despite the increasing importance of emerging markets in the world economy, and the major role that entrepreneurship plays in the development of these countries, little is known about international entrepreneurship initiatives in this context (Kiss et al. 2012).

**Table 7** Linear regressions results, internationalization, and innovation performance (institutional distance)

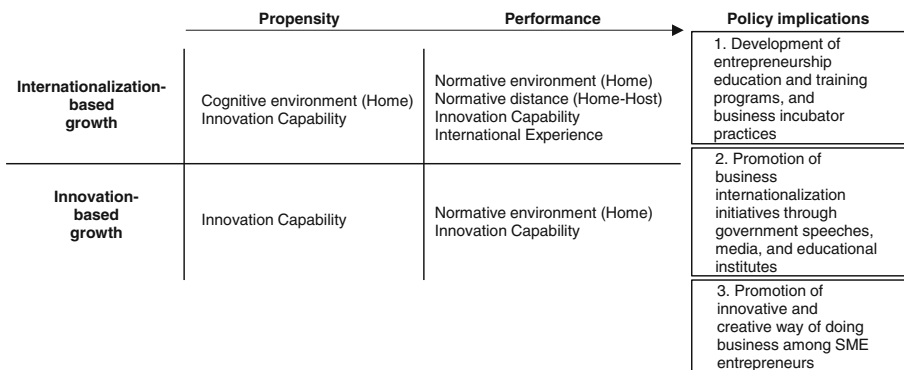
Variables	International performance (65 obs)			Innovation performance (65 obs)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Constant)	4.45 (0.24)***	2.56 (0.66)***	1.99 (0.72)***	3.70 (0.24)***	0.94 (0.55)*	1.05 (0.61)*
AGE	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.02 (0.01)*	-0.01 (0.01)	-0.01 (0.01)
NORM		0.29 (0.10)***	0.36 (0.11)***		-0.05 (0.08)	-0.05 (0.09)
INNCAPAB		0.09 (0.13)	0.02 (0.13)		0.76 (0.11)***	0.78 (0.11)***
INTEXPIR		0.08 (0.03)***	0.07 (0.03)**		0.00 (0.02)	-0.01 (0.02)
REGDIST			-0.23 (0.41)			-0.49 (0.35)
NORMDIST			0.89 (0.42)**			0.37 (0.36)
COGNDIST			0.24 (0.33)			-0.13 (0.29)
<i>F</i>	1.308	4.649***	3.778***	3.806*	13.928***	8.222***
<i>F</i> change		5.666***	2.235*		16.373***	0.800
<i>R</i> <sup>2</sup>	0.020	0.237	0.317	0.057	0.481	0.502
Adj. <i>R</i> <sup>2</sup>	0.005	0.186	0.233	0.042	0.447	0.441

\**p*<0.10, \*\**p*<0.05, \*\*\**p*<0.01

Entrepreneurs and their decisions are influenced by the availability of firm-specific competencies and capabilities, as well as by the information received from the external environment. Both factors shape the entrepreneurial schemas that lead to the strategic decision to pursue a certain firm-level action (Peng et al. 2008). We therefore formulated our research question, *concerning how the institutional environment affects the initial decision of an entrepreneur to go international, and the implications for SME performance*, and conducted this study in order to address it. Our results are summarized in Fig. 2.

Russian SMEs making the initial decision to internationalize have to overcome the cognitive barriers preventing them from venturing abroad. These barriers include a lack of information about potential risks, foreign-market specifics, and the capabilities required for a successful international launch. Firms that have higher levels of entrepreneurial knowledge and capabilities are more likely to internationalize, but not necessarily to achieve better international performance. *There should therefore be extensive governmental and university educational programs, training, and workshops for entrepreneurs, in order to stimulate an international propensity among SMEs* (Gupta et al. 2012a). However, there seems to be very low demand and a lack of understanding of the importance of entrepreneurship education among Russian enterprises (Entrepreneurship environment in Russia: OPORA Index 2010–2011). In addition, *the development of business incubator practices could provide a conducive cognitive environment for business development*. Currently, very few Russian SMEs are aware of or operate within business incubators (Entrepreneurship environment in Russia: OPORA Index 2010–2011). Similar shortcomings in the development of a cognitive environment for entrepreneurship have been reported in studies on other rapidly growing emerging economies, such as Brazil (Gupta et al. 2012a) and South Korea (Gupta et al. 2012b). Problems related to the *availability of the necessary knowledge and skills* for engaging in entrepreneurship are reflected in the GEM index of perceived capabilities among non-entrepreneurs: only 33.2 % of potential Russian entrepreneurs evaluated their capabilities as sufficient in 2010 (Kelley et al. 2012).

In order to improve their performance, Russian SMEs need to overcome certain normative barriers to entrepreneurship related to societal attitudes, a lack of admiration of creative and innovative ways of doing business, and negative perceptions of



**Fig. 2** Institutional and firm-specific factors influencing growth decisions and the performance of Russian SMEs

entrepreneurship as a career path. A positive social attitude to entrepreneurship is a critical prerequisite for good international and innovation performance, and several indicators in Russia suggest the need to improve the normative environment. According to the GEM survey of 2011 (Kelley et al. 2012), 55.3 % of the Russian respondents felt that the local media paid sufficient attention to entrepreneurship (in comparison with 75.9 % in China and 82 % in Brazil), 65.3 % confirmed the high status of entrepreneurship (in comparison with 73.4 % in China and 86.3 % in Brazil), and 64.5 % perceived entrepreneurship as a favorable career path (in comparison with 73.1 % in China and 86.3 % in Brazil). However, we should emphasize that, given the heterogeneity of institutional environments across emerging economies (Hoskisson et al. 2000), it may be unwise to draw generalizable theoretical conclusions based on context-specific findings. *One way of increasing the social acceptability of entrepreneurship in Russia would be to introduce various awards (e.g., “Entrepreneur of the year”, “Entrepreneur of the region,” “International Entrepreneur”). In addition, small and new ventures should be mentioned more frequently in government speeches and media sources (Spencer and Gomez 2004), and schools and universities should emphasize the advantages of an entrepreneurial career.*

It is not only the normative home country environment but also the normative distances between the home and host markets that concern SMEs pursuing an international growth strategy. If the normative institutional distance is negative (i.e., if the institutional conditions in Russia are less favorable than in the host country), the international performance of Russian SMEs abroad will be better. However, if it is positive (i.e., if the institutional conditions are more favorable than in the host country), the performance will be worse. According to our findings, Russian companies starting their international operations in the Commonwealth of Independent States, that is, the former Soviet Republics, are faced with the latter situation. In our opinion, their poorer international performance in these countries could be related to the lack of trust in entrepreneurs running small businesses. Previous research emphasizes the importance of trust for SMEs establishing and sustaining international operations (Zain and Ng 2006). The majority of Russian SMEs operate in the customer segment, and it is important for them to earn the trust not only of their value-chain partners but also of individual consumers. Earlier research findings have shown that, in the case of SMEs from emerging markets, individual and organizational consumption is affected by a lack of trust, the country-of-origin effect, and the existence of community support (Sethna 2006).

It is notable that, according to the results of our study, a regulatory institutional environment was identified neither as a significant predictor of a growth decision nor as a driver of favorable performance rates. It has been reported in previous studies that regulatory barriers play a particularly large role in the lack of international proclivity of Russian firms (Tsukanova and Shirokova 2012; Shirokova and Tsukanova 2012). Export and import regulations in Russia are expected to have a negative impact on the decisions of SMEs to internationalize and consequently on the performance of international operations (Lamprecht 2011). According to the World Bank Doing Business Ranking, the amount of documentation, time, and expense involved in cross-border operations is excessively high in Russia (World Bank 2012a): the country was ranked 160 out of 183 countries in the category “Trading



Across Borders” in 2012. OPORA-Russia, in turn, reported that in 2011, 24 % of SMEs in Saint Petersburg and 17 % in the Leningrad region resolved custom-regulation challenges by means of bribery (Entrepreneurship environment in Russia: OPORA Index 2010–2011). However, in 2012, the Ministry of Economic Development of the Russian Federation introduced a number of reforms aiming to reduce the number of documents required for each import and export operation and to lower the associated costs (World Bank 2012b). This, in addition to the recent WTO accession, is expected to create significant incentives for the development of international entrepreneurship, improve the investment climate, and increase the foreign-investment inflow in the country. It is worth emphasizing that the items included in the measurement scale for the regulatory environment refer to new entrepreneurial businesses, so the variables could have proved more effective if the analysis had been based only on a sample of new international ventures.

Innovation capability turned out to have a significant impact on both the growth decision and the performance of Russian SMEs. This result reflects the theoretical concept of a “strategy tripod,” meaning that institutions, firm-specific resources and capabilities, and industry-based competition affect firms’ strategic choices and consequently their performance in emerging markets (Peng et al. 2008). The development of innovation capability should become a major priority for Russian entrepreneurs if they are to stay competitive and create a demand for their products in both domestic and foreign markets. According to the GEM 2011 survey (Verkhovskaia and Dorokhina 2011), current assessments of innovativeness among Russian entrepreneurs are disappointing: 70 % of early-stage and 80 % of established entrepreneurs admit that their products and services are not new on the market; and 85 and 92 %, respectively, confirm that they do not use any new technology in their business activities. However, according to a measure of national innovation potential applied in GEM surveys, there are better opportunities for innovation in Russia than, for example, in China and Brazil (Verkhovskaia and Dorokhina 2011). This favorable assessment could be related to the underdeveloped domestic market in the country. In order to stimulate innovation growth among Russian SMEs, therefore, government, industry, and academia should *substantially improve the interaction between the various stakeholders in the Triple-Helix model*. In addition, the promotion of innovative and creative ways of doing business among Russian SME entrepreneurs would make the institutional environment substantially more conducive to innovation-based growth.

#### Limitations and suggestions for future research

Notwithstanding our interesting results, we acknowledge certain limitations in our research. First, the measure of the institutional environment for entrepreneurship that we used did not exhibit convergent validity. This means that the three dimensions of the institutional environment in Russia do not constitute an aggregated measure of the institutional profile. We treated all three dimensions as separate constructs in our study, even though the adaptation of the CIPE construct to research on emerging economies is suggested. As noted, Gupta et al. (2012b) suggest construct variance.

We would encourage researchers both to extend the existing CIPE measure and to adjust it to fit the context of emerging economies, as well as to develop a completely new measure for use in context-specific studies of the institutional environment. It would be worth using the findings of the latest research related to the development of the CIPE construct (Stenholm et al. 2013).

Second, our study focused only on the two milestones of entrepreneurial activities of Russian SMEs: the decision to grow and the subsequent performance. We believe that future research should extend knowledge about the process of internationalization in terms of the stages of SME internationalization, the choices of entry mode, the control of foreign operations, and the timing.

Third, our data come from one region of Russia (the North West) and may not be representative of the entire country. Nation-state interpretations are particularly common in cross-country studies (Hofstede 2002). However, we would encourage future researchers to expand the regional diversity of their samples when carrying out analyses in rapidly emerging economies spanning particularly large geographical areas. We would also support the collection of research data from a variety of industries, thereby providing enough observations for industry-level analysis.

Fourth, in line with the findings of previous methodological studies (Coviello and Jones 2004), we would recommend taking a qualitative approach in conducting international entrepreneurship studies in emerging economies (see, for example, Shirokova and McDougall-Covin 2012). Personal interviews with the entrepreneurs would enable them to give comprehensive explanations of their decisions and the outcomes achieved. Indeed, the quantitative approach is currently dominant in the IE field, as well as in the literature related to internationalization (Coviello and McAuley 1999).

## Conclusions

Our study helps to shed light on the shortcomings in the institutional environment for international entrepreneurship in Russia. The analysis we conducted has implications for the research community, practitioners, and public policymakers. Given the need to better understand the institutional structures in emerging economies, our study enhances knowledge about the influence of specific institutional dimensions on the particular phases of SME internationalization. Surprisingly, our results indicate that it is not the regulatory institutions that have a significant effect on internationalization or innovation-based growth. We found that an unfavorable cognitive institutional environment, referring to the absence of relevant and sufficient knowledge for starting international business operations, constrained the majority of firms in terms of going international. However, once the growth decision has been made, a negative normative institutional environment in society affects performance outcomes.

Policymakers should carefully evaluate the shortcomings of the institutional environment in Russia in order to provide the relevant incentives and create an environment that is conducive to developing entrepreneurship. The Russian government still

fails to realize that entrepreneurship has an important role in times of market transition (Smallbone and Welter 2012). This discontinuance causes a serious gap between the policy processes, their implementation, and support for entrepreneurship activities in the country. However, it is interaction between institutions and organizations that facilitates the institutional evolution of an economy (North 1990). Therefore, it is not enough to provide favorable entrepreneurship policies. Involvement and co-operative actions among governmental authorities and businesses are required in order to foster institutional change and economic development in Russia.

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## Appendix

**Table 8** Measurement items in the home-country country institutional profile for entrepreneurship

Dimension	Item	Item wording	Factor loading
Regulatory dimension	REG1	Government organizations in this country assist individuals with starting their own business	0.823
	REG2	The government sets aside government contracts for new and small businesses	Item dropped
	REG3	Local and national governments have special support available for individuals who want to start a new business	0.864
	REG4	The government sponsors organizations that help new business development	0.778
	REG5	Even after failing in an earlier business, the government assists entrepreneurs in starting again	0.811
Normative dimension	NORM1	Turning new ideas into business is an admired career path in this country	Item dropped
	NORM2	In this country, innovative and creative thinking is viewed as the route to success	0.764
	NORM3	Entrepreneurs are admired in this country	0.900
	NORM4	People in this country tend to greatly admire those who start their own business	0.852
Cognitive dimension	COGN1	Individuals know how to legally protect a new business	Item dropped
	COGN2	Those who start a new business know how to deal with risk	0.786
	COGN3	Those who start a new business know how to manage risk	0.760
	COGN4	Most people know where to find information about markets for their products	0.796

**Table 9** Innovation capability, item wording

Innovation capability ( $\alpha=0.923$ )	Item-total correlation	Alpha if item deleted
The level of newness (novelty) of our firm's new products	0.602	0.919
The use of the latest technological innovations in our new products	0.677	0.916
The speed of our new product development	0.661	0.917
The number of new products our firm has introduced to the market	0.654	0.917
The number of our new products that are first-to-market (early market entrants)	0.658	0.917
The level of newness (novelty) of our firm's new services	0.671	0.917
The use of the latest methods in our new services	0.707	0.915
The speed of our new service development	0.663	0.917
The number of new services our firm has introduced to the market	0.661	0.917
The number of new services that are first-to-market (early market entrants)	0.659	0.917
The technological competitiveness of our company	0.589	0.919
The speed with which we adopt the latest technological innovations in our processes	0.602	0.919
The up-to-datedness or novelty of the technology used in our processes	0.658	0.917
The rate of change in our processes, techniques, and technology	0.639	0.918

**Table 10** Subjective international performance, item wording

Subjective international performance ( $\alpha=0.890$ )	Item-total correlation	Alpha if item deleted
Generally speaking, we are satisfied with our success in international markets	0.388	0.902
We have achieved the turnover objectives we set for internationalization	0.598	0.885
We have achieved the market-share objectives we set for internationalization	0.729	0.868
Internationalization has had a positive effect on our company's profitability	0.691	0.873
Internationalization has had a positive effect on our company's image	0.869	0.850
Internationalization has had a positive effect on the development of our company's expertise	0.757	0.865
The investments we have made in internationalization have paid off	0.763	0.864

**Table 11** Innovation performance, item wording

Innovation performance ( $\alpha=0.876$ )	Item-Total Correlation	Alpha if item deleted
The ratio of new products has increased rapidly	0.703	0.851
The ratio of new services has increased rapidly	0.708	0.851
The ratio of improved new products has increased rapidly	0.645	0.859
The ratio of improved services has increased rapidly	0.723	0.849
The ratio of changes in the firm regarding production techniques has increased rapidly	0.576	0.868
The ratio of changes in the firm regarding the provision of services has increased rapidly	0.612	0.863
The firm has become much more innovative with regard to its competitors	0.624	0.862

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