



Performance of Russian SMEs: exploration, exploitation and strategic entrepreneurship

Performance of
Russian SMEs

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Abstract

Purpose – The purpose of this paper is to examine the ability of Russian firms to develop strategic entrepreneurship (SE) as a source of sustainable competitive advantage in a turbulent and hostile business environment. It aims to suggest a model of SE that includes two components – exploration and exploitation – and to test this model on 500 Russian small to medium-sized enterprises (SMEs) which show the influence of these components on firm performance. It also aims to address one of the most fundamental questions confronting the international business (IB) field: “What determines the success and failure of firms around the world?”.

Design/methodology/approach – The paper presents empirical research with a regression analysis of 500 Russian SMEs operating in Moscow and St Petersburg in three major industries: information technologies and communications (ICT), hotels, restaurants, and cafes (HoReCa) and wholesale/retail.

Findings – The Russian firms show a positive influence of exploration and exploitation on firm performance. Moreover, the influence of specific elements of exploration and exploitation was analyzed and entrepreneurial values, investments in internal resources, knowledge management and developmental changes were determined to be significant factors constituting SE and having a positive relationship with firm performance.

Research limitations/implications – The research is limited by its sample, which includes only three industries and the number of dependent variables tested. Further research can focus on other performance indicators, industries and different settings.

Originality/value – The paper contributes to the existing literature on entrepreneurship and IB in two ways. The theoretical contribution in entrepreneurship literature is linked to development and testing of the SE model. It also contributes to IB literature by proposing that SE is one of the possible sources for creating a successful firm in an emerging economy context such as in Russia.

Keywords Strategic entrepreneurship, Exploration, Exploitation, Small to medium-sized enterprises, Emerging markets, Russia, Entrepreneurship

Paper type Research paper



Introduction

The concept of strategic entrepreneurship (SE) is relatively new in entrepreneurship and management studies, having been introduced in 2001 in the special edition of the *Strategic Management Journal* dedicated to SE (Hitt *et al.*, 2001; Foss and Lyngsø, 2011). Questions and debate followed on the validity of the combination of strategic

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management and entrepreneurship, and how to differentiate SE from other entrepreneurship-related concepts such as corporate entrepreneurship, entrepreneurial orientation, and entrepreneurial strategy. It remains unclear if SE is a framework, model, theory, paradigm, concept, or a simple point of interface (Schindehutte and Morris, 2009). SE is formally defined as “the integration of entrepreneurial (i.e. opportunity-seeking behavior) and strategic (advantage-seeking behavior) perspectives in developing and taking actions designed to create wealth” (Hitt *et al.*, 2001, p. 481).

Empirical research on the concept of SE is limited due in part to the difficulties inherent in operationalizing the concept and in part to its theoretical ambiguity. For example, it is unclear which organizational routines constitute SE and how these elements can be measured. In addition, the existing research in SE is aimed mainly at large companies, leaving small and medium enterprises without attention. Moreover, existing empirical research examines firms in developed countries. That research assumes that the firms operate in an established market-based economy, that employees are motivated to act efficiently, and that they are doing business in relatively stable institutional environments.

Although theories of firm behavior have been constructed to explain the motivations and strategies of firms in developed countries, there have been several attempts to test the applicability of these theories to explain the behavior of emerging markets and BRIC companies (Filippov, 2010). However, recent studies in the field of entrepreneurship and strategic management express doubts about generalizing the findings of this research and its application to emerging economies. In countries with emerging economies, institutional constraints or undeveloped institutions limit the number of strategic business alternatives (Hoskisson *et al.*, 2000; Peng *et al.*, 2008; Puffer *et al.*, 2010). The international business (IB) literature informs us that, contrary to companies from developed economies, firms in emerging economies do not possess the competitive advantages an established home base or well-recognized brands, and they lack international market experience (Zhang and Van den Bulcke, 1996). Competition has also intensified as multinational companies have introduced new management practices and operations that challenge conventional norms and routines (Zhou *et al.*, 2006). To cope with these changes, firms in emerging economies should seek new ways to improve their managerial efficiency in order to compete in the new global environment.

Russian SMEs emerged recently on the global economy and are becoming increasingly important in the global marketplace. Although Russian SMEs are often compared to their counterparts from other emerging economies, they differ in many respects, reflecting the specific path of their formation in post-soviet Russia. For example, in Russia, the growth rate of SMEs is much lower than in other emerging economies (Kihlgren, 2003). Until recently, SMEs did not play a leading role in the economic development of Russia compared to developed countries. For instance, during the 1990s, SMEs in Russia accounted for just 12.8 percent of total employment and its share of GDP was around 10-12 percent (Kihlgren, 2003) compared to the 50 percent of GDP that SMEs accounted for in developed countries. However, the situation started to change in the 2000s. Russian SMEs contributed 20-25 percent of GDP in 2011 and it is expected that by 2020 this number will reach 30 percent (OPORA Russia, 2011). This tendency shows an increasing role of SMEs and the importance of their development for economic growth and enhancement of country competitiveness on the global market. In the same time frame of the early 2000s, the nature of entrepreneurial

activity changed as well (Chepurenko, 2011). More and more enterprises in Russia are becoming opportunity-driven rather than necessity-driven (GEM, 2011). The crisis in 1998 opened new opportunities for the development of “free entrepreneurship,” meaning entrepreneurship based on recognition and implementation of opportunities rather than on ways to pay the rent.

It is most important for managers to be aware of concrete measures they can implement and specific factors on which they have to focus their attention to increase their company’s performance. This is especially important for Russian SMEs as they have a short history in a market economy and lack experience in entrepreneurship and modern management practices. Most of the SMEs have limited resources to implement their strategies and are unable to engage in many different activities without being certain there will be positive results. Success in the Russian market is often dependent on access to unique resources through which they can grow successfully. Russian firms gain access to these resources through administrative resources or personal connections. Most Russian SMEs do not have such resources, forcing them to seek out other ways of achieving competitiveness and growth. The current stage of SME development in Russia calls for the development of new approaches to business management, creation of new management tools, and application of the most modern business management practices.

It is also important for Russian SMEs to develop a focus on internationalization. We consider internationalization a growth strategy that increases the level of competitiveness of SMEs from emerging economies. In comparison with the average level of export activities of SMEs from developed economies – 15-20 percent – Russian SMEs export only 5 percent of their products and services (Ermoshin, 2007). The main reason for that is the low level of competitiveness of Russian goods and services. We believe that SE, which includes opportunity-seeking and advantage-seeking behavior, is one of the possible ways to improve the competitiveness of Russian SMEs.

This research aimed at studying the ability of Russian firms to develop strategic entrepreneurship as a source of sustainable competitive advantage in the turbulent and hostile business environment. We contribute to the existing literature on entrepreneurship and international business (IB) in two ways. First, we develop the model of SE based on two main components – exploration and exploitation – and we test this model on 500 Russian SMEs that show the influence of these components on firm performance. Second, we address one of the most fundamental questions confronting the international business (IB) field: What determines the success and failure of firms around the world? (Peng, 2004). We propose that SE is one of the possible sources for creating successful firms in emerging economic contexts such as the Russian context. The paper consists of six parts. The first part presents the description of the Russian SME development context and specific characteristics of the Russian management and leadership styles. The second part includes the model and research hypotheses. In the third section we introduce the method of research; in the fourth – the results of the statistical analysis appear. The fifth part contains the discussion and in the sixth we present our conclusions.

Why is this research important?

Most research in entrepreneurship and SMES in Russia is devoted to the barriers and problems faced by the firms in the process of creation and development (e.g. Welter and Smallbone, 2003; Aidis *et al.*, 2008; Zhuplev and Shein, 2008; Ahlstrom and Bruton,

2010). Researchers typically consider several stages of SME development in Russia (Kovaleva, 2004; Chepurensko, 2011), noting in general positive changes in recent years. However, these changes are relatively slow and are reflected in the slow growth in the number of SMEs. For example, from 1996 to 2000 the number of SMEs grew from 842,000 to 879,000 (Kovaleva, 2004). In 2009-2010 the number of registered SMEs was 1,602,000 (Rosstat, 2010). Also worth noting is the high degree of uneven geographical distribution of Russian SMEs: 29.6 percent of all SMEs are located in the Central region (around two thirds in Moscow) and 16.2 percent in the North-West region (mostly in St Petersburg), with the remainder scattered across the nation.

The level of entrepreneurial activity in Russia is at a low level – 4.6 percent – only one place above Slovenia (3.7 percent) in last place (GEM, 2011). Reasons for this include the complexity and intricacies of the bureaucratic procedures for the organization of new business, as well as the complexity of interaction with partners and regulators and the overall level of uncertainty associated with poor development of the institutions that support small businesses.

Counter to global trends, change does not occur readily in Russia. Russian firms behave more conservatively and tend to maintain their original business methods. Some industries are dominated by speculative activity as manifested in rapid reorganizations in an attempt to increase profits. An autocratic management style reflective the Soviet era, when the centralized economy was seen as an extension of politics and the failure to achieve economic objectives was seen as a crime, continues to dominate the management of Russian firms. This style is characterized by centralized decision-making similar to military discipline, while within the company there is often a select circle of trusted managers who are given more freedom and rewards than others (McCarthy *et al.*, 2010).

At the same time, recent studies of leadership style in Russian companies show that in successful entrepreneurial firms in modern Russia an open or transformational leadership style inherent to American entrepreneurs has begun to influence management (McCarthy *et al.*, 2010). According to the results of this study, most entrepreneurs and managers of SMEs, are capable of opportunity recognition and creation, and they have created an environment within their companies leading to the formation, cooperation, and delegation of authority. This has enhanced creativity, creating organic organizational structures that support high levels of innovation and proactivity (McCarthy *et al.*, 2010).

The external Russian business environment is characterized by high uncertainty, dynamism and turbulence. Most entrepreneurs and top managers of SMEs are faced with situations of limited resources, lack of reputation among different groups of stakeholders, a limited customer base, and other constraints. However, a dynamic and volatile external environment is quite common for entrepreneurial business development. Some studies suggest that the turbulence of the environment is considered by entrepreneurs to be an opportunity for excellence rather than an excuse for failure (Cox and Camp, 2001). At the same time, according to the theory of entrepreneurial convergence, common entrepreneurial culture may be developing because of the increasingly similar conditions in the global business environment and the similar types of issues that entrepreneurs around the world face (Mitchell *et al.*, 2002). This theory supports the argument that despite the many difficulties faced by Russian entrepreneurs, successful entrepreneurs will reject the traditional authoritarian approach to management and will use a more open and entrepreneurial management style (McCarthy *et al.*, 2010).

We believe that all of the above allows us to justify the choice of both the subject and the object of our study. First, we examine SE in Russian firms as one of the possible ways to improve the efficiency of the firm and as a driver of growth in a global environment. Second, we focus on SMEs, most of which are managed by entrepreneur-founders, and are more likely to exhibit the modern Western approach for managing to achieve success and compete in the global marketplace, as compared with the large Russian companies that adhere to an autocratic approach to management. And, finally, for Russian SMEs growth is often the only alternative to death, and in order to survive the Russian firms need to grow (Yudanov, 2001; 2008; Kleiner, 2006). In this regard, the study of mechanisms of growth and increasing performance of Russian SMEs seems to be a timely task.

Development of the model and research hypotheses

Effective implementation of SE practices enables a firm to establish and support a balance between opportunity-seeking and advantage-seeking behaviors, which in turn has a positive influence on firm performance. Schindehutte and Morris (2009) have noticed that both entrepreneurship and strategic management deal with exploration and exploitation activities. Entrepreneurship includes both exploration of opportunities and exploitation of the revealed opportunities, while strategic management is focused on seeking advantage: exploitation of core business opportunities and exploration of new opportunities of growth (Burgelman and Grove, 2007). Clearly, SE includes both components: exploration and exploitation (Ireland and Webb, 2007).

Exploration

Exploration and exploitation represent two distinct concepts. According to March (1991) things, which are known and considered to be stable can be exploited through selection, implementation, and efficiency. Unknown elements must be discovered through exploration activities including search, experimentation, and variation. Exploration as defined by March (1991) is focused on the search for new opportunities, experimentation and variation. These processes can be achieved through an entrepreneurial orientation (EO) and an entrepreneurial culture. To engage in exploration activities the company should be innovative, proactive and risk-taking, and employees should share entrepreneurial values aimed at innovation, market leadership, personal initiatives, creativeness and readiness to take risk.

Entrepreneurial orientation. The company that has developed an internal culture favoring exploration will constantly be innovating, improving and finding new ways to increase profits and grow. This is especially relevant for SMEs, which, due to limited resources, must be constantly seeking new ideas and be innovation-oriented to survive and grow. For Russian SMEs the ability to focus on new abilities and to develop an entrepreneurial culture and entrepreneurial mindset are key factors for development and growth both in domestic and international markets.

Entrepreneurial orientation (EO) is regarded as one of the key concepts in entrepreneurship research on the firm level in modern literature on management and entrepreneurship. EO describes a situation in a firm when organizational processes, practices and procedures allow the firm to create wealth through internal entrepreneurial activity. Both direct and indirect impacts of EO on the firm's performance are discussed in studies on EO (Rauch *et al.*, 2009). On one hand, scientists find evidence that firms

with EO demonstrate a higher level of performance (Morris *et al.*, 1993; Gough, 1993; Lee *et al.*, 2001; Wiklund and Shepherd, 2003). That is how the higher profitability of companies with a strong entrepreneurial potential than conventional firms was proven (Bailey, 1992). In addition, more rapid growth as a characteristic inherent in companies with internal entrepreneurial initiatives was noted (Kramer and Venkataraman, 1993). Wiklund (1999) and Wales *et al.* (2011a) show that EO provides a positive effect on firm performance, as it aids recognition of opportunities for resource allocation and changes in customer preferences faster than the competition.

On the other hand, EO causes improvement in various organizational processes, which, in turn, affects the economic performance of firms. For example, the rate of innovation (product, process, administrative) depends on the level of EO and elements of corporate entrepreneurship (Cornwall and Hartman, 1988; Jennings and Young, 1990; Knight, 1997; Morris *et al.*, 1992). Many sources indicate that the increase in performance is achieved by developing new ideas for products and processes of the company (Pinchot, 1985; de Chambeau and Mackenzie, 1986; Ellis and Taylor, 1988). Entrepreneurial ideas are becoming the basis for the development of new activities in autonomous organizational units through updating the portfolio of products/services of firms and expansion into new markets (Zahra, 1991; Stopford and Baden-Fuller, 1994).

Entrepreneurial culture. Entrepreneurial culture is an important factor for young growing companies that compete with large well-established companies, including multinationals, because it allows companies to achieve the necessary growth rates and the desired level of competitiveness (Antoncic and Hisrich, 2001). Large Russian companies with an autocratic management style often lose effectiveness as they attain their large size; they develop conservatism that restrains creativity and initiatives (Filimonova *et al.*, 2010). Entrepreneurial culture and corporate entrepreneurship, according to Bagiev and Asaul (2001) allows businesses to overcome problems of inertia, loss of flexibility and inefficient adaptation to changing environmental conditions. Some studies show that entrepreneurs share a common experience during the conceptualization of entrepreneurial ideas and business growth regardless of culture and geography and therefore have a similar scenario when establishing new businesses and promoting their ideas within a company and creating an entrepreneurial culture (Mitchell *et al.*, 2002).

Thus, the presence of an EO and entrepreneurial culture lead to improved company performance, usually expressed in increasing profits and company growth (Covin and Slevin, 1991; Zahra, 1991, 1993; Zahra and Covin, 1995). EO and entrepreneurial culture seem to have a larger positive effect on performance in hostile environments than in benign ones (Covin and Slevin, 1989, 1991; Zahra and Covin, 1995; Covin and Lumpkin, 2011). EO and entrepreneurial culture are the primary mechanisms that are needed in the dynamic global and domestic business environment for Russian SMEs to achieve growth and improve their performance. According to Zahra *et al.* (2000) corporate entrepreneurship is the key for firms in emerging economies to revitalize, reconfigure resources, and transform into market-oriented firms that are ready to compete in the global economy. Between 1995 and 2004 employees' entrepreneurial contribution grew in Russia (Croucher and Rizov, 2011). There are also positive tendencies in the creation of entrepreneurial mechanisms in Russian firms (Croucher and Rizov, 2011). Firm growth and performance are strongly dependent on the readiness and willingness of the top management team or business owner to delegate authority for the decision-making process. Russian SMEs must be able to recognize opportunities and

develop managerial flexibility and creativity among employees to function successfully. This approach to management becomes a competitive advantage of Russian SMEs in attracting talent and developing loyalty among staff (Shirokova *et al.*, 2008; Shirokova and Yezhova, 2012), which in turn also leads to firm growth. Based on the above we can formulate the following hypothesis:

H1. Exploration is positively related to performance of Russian SMEs.

Exploitation

While EO and entrepreneurial culture enable exploration, strategic management of resources and executed changes enable the firm to continuously exploit existing opportunities for growth and explore entrepreneurial opportunities (Ireland and Webb, 2007). We believe that exploitation should include such factors as investment in internal resources, valuing knowledge-related resources, organizational learning, and developmental and transitional organizational change.

The ability of Russian SMEs to manage exploitation, the underlying concept of dynamic competition, represents the:

- way to upgrade competitive advantage in terms of the variability and uncertainty of the Russian business environment; and
- way to use firm capabilities in conditions of limited resources.

Investment in internal resources and valuing knowledge-related resources. The resource-based view of the firm suggests that competitive advantages are a function of the resources the firm develops to implement its product market strategy (Wernerfelt, 1984). It explains differences in the performance of firms by their ability to find and exploit unique resources which are difficult to imitate and can thus provide a firm with sustainable competitive advantage. Ireland *et al.* (2003) suggest strategic management of resources is an important part of SE. To exploit opportunities, a firm needs to manage its resources according to strategic goals.

Knowledge-related resources such as know-how, technologies, patents and licenses, qualified personnel and professional managers represent the assets of the company which can combine with new resources and create unique capabilities and sustainable competitive advantage because they are valuable, rare, imperfectly imitable and non-substitutable in their combinations. The evaluation by top managers and owners of the importance of specific resources is closely related to their ideas about the strategic development of the company. A high evaluation of knowledge-related resources implies long-term oriented development of the company.

In the Russian context, investments in internal resources of the firm represent the attempt to create a long-term competitive advantage and an orientation on further growth and development of SMEs. Of particular importance are investments in human resource management in terms of training and development. Investments in research and development (R&D) and creation of new knowledge become key factors in the effectiveness of Russian SMEs. Unlike large businesses and state-owned companies where investments originating from the state for R&D are seen as an opportunity to earn extra money, the top management of Russian SMEs is interested in improving the efficiency of investment in resources.

Success on the Russian market is often dependent on the possession of unique resources, access to which makes it possible to grow successfully and improve firm performance. Russian firms gain access to these resources via administrative resources or connections. Russian SMEs generally do not have such connections, creating the need for more effective use of their limited resources. Consequently, SMEs can be considered as a possible source of innovative activities in Russia. As noted in Kovaleva (2004), the main factors that contribute to the development of innovations in Russian SMEs include: skilled staff, a strong motivation among personnel to be involved in innovative activities, a good understanding of market conditions, and the capacity for organizational change. At the same time, poor management, tax burden, and lack of efficient business services for SMEs hamper innovative activity. In addition, the institutional environment constrains innovative activity. Its low level of development is common to all spheres of economic activity – manufacturing and service industries – as well as for all types of innovations – technological, organizational, marketing (Gokhberg and Kuznetsova, 2001). Innovation activities of Russian SMEs are primarily self-funded (Filimonova *et al.*, 2010).

Organizational learning. The ability of an organization to learn helps it to develop constantly. If the company is accumulating all of its knowledge and experience and is ready to use external knowledge coming from different industries and businesses, it becomes better at analyzing opportunities and apply sufficient resources to exploit it. Kyrgidou and Hughes (2010) have also stressed learning as one of the important factors, which should be included in the model of SE. Organizational learning will enhance exploitation activities of the company. Learning is vital for creating new capabilities. The organizational ability to collect, build, and reconfigure a knowledge base constitutes a source of competitive advantage (Eisenhardt and Martin, 2000; Wolff and Pett, 2007). Exploiting existing knowledge allows the firm to build capacity for growth (Cohen and Levinthal, 1990).

Studies show that most large Russian companies have a problem implementing organizational learning and knowledge management (Andreeva and Ihilchik, 2009). For example, Michailova and Husted (2003) and Michailova and Hutchings (2006) have shown that employees of Russian companies are not ready to share their knowledge willingly. Moreover, Michailova and Husted (2003) note that most Russian organizations are hostile to knowledge sharing. One of the main reasons is the widespread belief that knowledge is the source of an individual's (personal) power and authority, and so it should not be transferred without a strong need and appropriate remuneration. However, for Russian SMEs organizational learning is now becoming a key factor of competitiveness, and sometimes even a necessary condition for survival in the turbulent environment of Russian business (Kulikov and Shirokova, 2010; Shirokova and Yezhova, 2012).

Developmental and transitional organizational change. Change is another important factor influencing exploitation by a company. The firm has to be able not only to define the opportunities but also to bring them to reality through change. Ackerman (1997) distinguished three types of change:

- (1) developmental;
- (2) transitional; and
- (3) transformational.

Developmental change is incremental change that improves some aspect of the organization. Transitional change is aimed at achieving a specific desired state

different from the current one. Transformational change is radical and requires a shift in organizational paradigm. It represents significant change in structure, processes, culture and strategy of the organization. Change can have short-term or long-term effects on firm performance. While the effect of improvements in products or services and in the everyday work of the company can be noticed quickly, the success of more significant changes can often be evaluated only over time.

The ability of Russian companies to implement organizational change is becoming one of the key factors of survival and success in a dynamic and unpredictable business environment (Judge *et al.*, 2009; Andreeva, 2008; Shirokova *et al.*, 2012). At the same time, the study of organizational change in emerging economies and transition countries demonstrates that different types of organizational change will have different impacts on the operations of SMEs (Zhou *et al.*, 2006; Shirokova *et al.*, 2010). For Russian firms the relationship between organizational capacity for change and firm performance is stronger when there are relatively high levels of uncertainty with the task environment (Judge *et al.*, 2009).

Thereby, we conclude that all elements of exploitation are aimed at improving company performance through innovation, changes and the efficient management of resources. This ability is important for any company in any context, however, for SMEs, especially in emerging economies like Russia, this ability is crucial for development and growth:

H2. Exploitation is positively related to the performance of Russian SMEs.

Strategic entrepreneurship

While concentration on exploration can lead to many undeveloped ideas and undeveloped competence, focus on exploitation can create a “competency trap” and prohibit the organization from making the necessary changes and innovations (March, 1991). The balance of both enhances performance by making an organization innovative, flexible, and effective without losing the benefits of stability, established routines, and efficiency (Simsek, 2009).

Ambidextrous organizations (organizations that can manage trade-offs between conflicting demands by putting in place “dual structures”) (Duncan, 1976) are able to support a high level of both styles of learning, balancing between exploration and exploitation.

The model of SE incorporates both exploration and exploitation which leads to increased firm performance (Tushman and O’Reilly, 1996; Bierly and Daly, 2007). If an organization is able to balance and simultaneously develop both exploration and exploitation practices, i.e. to be ambidextrous, it will have better performance success (Knott, 2002; Helfat and Raubitschek, 2000; Bierly and Daly, 2007). We believe that the old approaches to doing business are becoming less acceptable in the volatile and turbulent Russian business environment. The distinctive feature of entrepreneurial firms is their ability to recognize new opportunities and pursue these opportunities faster than their competitors and do it despite limited resources (Shane and Venkataraman, 2000; Zahra and Dess, 2001). At the same time, the ability to use these opportunities to achieve sustainable competitive advantage in an environment with weak institutional support should be developed. Thus, we assume that SE in Russian SMEs will have a positive influence on firm performance:

H3. Strategic entrepreneurship has a positive influence on the performance of Russian SMEs.

Figure 1 presents the research model and hypotheses.

Method

Data and sample

The data were collected in 2007-2008 on 500 firms from Moscow and St Petersburg employing from three to 500 people. In accordance with the traditional classification[1], SMEs include companies with up to 250 employees. Nevertheless, we have decided to increase the upper limit, since the main purpose of data collection was a study of growth factors of Russian small and medium businesses. In addition, if we consider only the number of employees, many Russian SMEs do not reach the sales volume used to determine medium-sized business. The advantages of this approach are similar to those used by Delmar *et al.* (2003). As the debate in the Chamber of Commerce of the Russian Federation shows, within the framework of the Russian sample of SMEs it can be advisable to define an SME as a firm with fewer than 500 employees (Chamber of Commerce and Industry of the Russian Federation, n.d.). The size of the sample was chosen by the research team to provide considerable reliability for quantitative research while not consuming too much time and resources in terms of data collection.

In order to ensure the external validity of the study, the method of selection proportional to the sample was used. The SPARK-Interfax database, which includes information on more than 5,000,000 companies registered in the territory of Russia was used as the general population of the study. The use of the target sample characteristics allowed us to distinguish two subgroups of the population of Russian entrepreneurial firms: all private companies registered in Moscow or St Petersburg with up to 500 employees in three fast-growing industries. Then, from the general population companies were randomly selected in proportion to the region, industry and company size. The companies selected represented the three most rapidly developing industries in Russia:

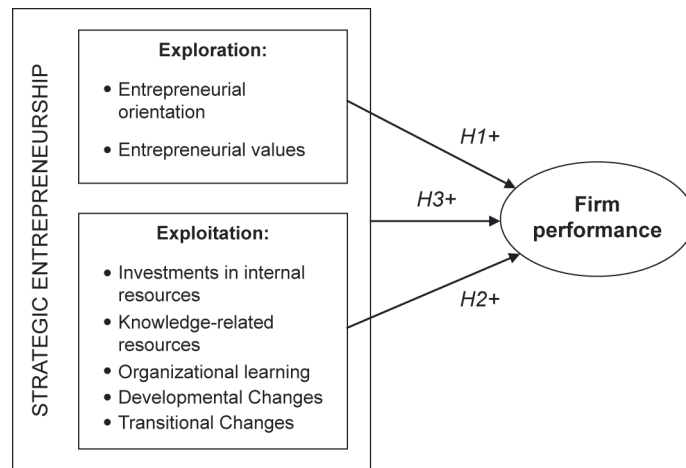


Figure 1.
Research model

- (1) wholesale and retail sales;
- (2) hotels, restaurants and cafes (HoReCa);
- (3) ICT-industry (information technologies and telecommunication, digital television, software, etc).

The two cities of the Russian Federation with the highest entrepreneurial activity – Moscow and St Petersburg – were selected for the survey. The decision to limit the sample companies to Moscow and St Petersburg was due to the fact that in Russia, SMEs are distributed very unevenly. Historically, most of Russian SMEs were located in the two largest Russian cities, Moscow and St Petersburg, (Saydullaev and Shestoperov, 2009). According to the report of the National Institute of Systematic Studies of Entrepreneurship Problems in February 2009, as of October 1, 2008 Moscow and St Petersburg had one of the highest numbers of SMEs per 100,000 inhabitants: 275.1 companies for Moscow and 337.1 companies for St Petersburg (Saydullaev and Shestoperov, 2009). The report also shows that the highest level of turnover of small firms in the country in January-September 2008 rubles was in these cities. In Moscow, 752,905.9 million rubles (\$25,096.85 mln) and in St Petersburg, 745,455.9 million rubles (\$24,848.53 mln) (National Institute for System Studies of Entrepreneurship, n.d.).

The sample was limited to companies with solely Russian ownership because part of the research was devoted to the issue of transition to professional management in Russian firms and the behavior of the company owner who was making decisions about dividing ownership and management control.

The data were collected through face to face interviews with top managers by a research company: Russian Public Opinion Research Center (VCIOM[2]). This company was contracted to collect data by the Center of entrepreneurship of St Petersburg University, Graduate School of Management. The decision to bring in an outside organization to collect data was made for several reasons. First, we acknowledged the difficulties in conducting such research of SMEs, not only in Russia but in other countries as well, as SMEs are “notorious for their inability and unwillingness to provide desired information” (Fiorito and LaForge, 1986, p. 11). Second, the research team already had experience working with VCIOM and could rely on the quality the data obtained. VCIOM has the necessary resources and a good reputation in Russia[3]. And, finally, the research team could check the quality of data as it selected the companies for the sample based on the general population. We had all contact details of each firm.

Representatives of VCIOM conducted structured interviews with the heads of firms (general directors, owners or top management members) from November 2007 to August 2008 face to face. These interviews were based on a survey questionnaire developed by the research team. This questionnaire focused on various aspects of company management with questions related to firm activities in 2007. Interviews were done in the Russian language and lasted from 60 to 90 minutes. In the survey, a guarantee of anonymity for the companies was provided, and the respondents were assured that only summarized test results would be released. Furthermore, we controlled for indifference in answering questions by purposefully posing two essentially identical questions in different places and in different formats to see if the respondents’ answers were consistent, rejecting those whose answers were not.

In the sample, the proportion of firms with fewer than 50 employees was 27.8 percent of the companies, 31.2 percent of the companies had 50 to 100 employees, 24.2

percent firms had 100-200 employees, and 16.6 percent had 200-500 employees. As for the distribution of the sample between the legal forms: 79.4 percent were limited liability companies, 17.4 percent were companies in the form of closed joint-stock, and 3.2 percent were open joint-stock companies. Distribution of companies by industry in the sample is as follows: Wholesale and retail trade – 71.8 percent, HoReCa (hotels, restaurants and cafes) – 15 percent, ICT – 13.2 percent. The average age of companies in the sample study is 11.3 years.

For the purposes of the study in the sample the sales data of the surveyed companies was included. These data were taken from the official statistical information system SPARK-Interfax, the presence of the companies in which was a prerequisite for inclusion in the study.

Dependent variables

In our study we use two performance indicators: growth of sales and perceived non-financial performance.

Growth of sales. Sales growth is a recognized and frequently used performance indicator for SME research (Delmar *et al.*, 2003; Wales *et al.*, 2011b), as firms with small size and short history often work with losses rather than profit. Sales growth enables estimates of business growth when profits are not representative. In addition, the figures from official sources are more reliable. For the purpose of the study archival financial performance on sales volume of the companies over a three-year period (2005, 2006 and 2007) was taken from the SPARK-Interfax database. Growth of sales is calculated as a percentage increase in sales volume from 2006 to 2007. Sales growth is considered the main performance indicator of this study.

Perceived non-financial performance includes studies using satisfaction, goal attainment, or global success ratings as performance indicators. Covin and Slevin (1989) measured firm performance by the subjective perceptions of respondents about the importance of different performance indicators and level of satisfaction according to those indicators. The index is calculated by multiplying the level of satisfaction of top management of the firm with several main financial performance criteria by the degree of importance they assign to each of these financial criteria. The financial performance criteria of the questionnaire included: company profit, sales level, profit to sales ratio and market share. The questions used to assess the level of satisfaction, and the importance of different factors, are presented in the Appendix (Table AI).

Independent variables

Independent variables include EO based on Covin and Slevin scale (1989) and entrepreneurial values, representing the exploration component of the concept; investments in internal resources, knowledge-based resources, organizational learning, developmental and transitional changes forming the exploitation component. The variable “strategic entrepreneurship” is calculated by multiplying exploration and exploitation scales to analyze the overall impact. The questions used for different independent variables are available in the Appendix (Table AI).

Control variables

Control variables include the age of the company, its size and industry.

Results

Table I presents descriptive statistics and a correlation matrix of the variables.

Hierarchical regression was used to analyze the influence of separate factors on firm performance. Three models are developed to test three hypotheses:

- (1) a model with exploration variables;
- (2) a model with exploitation variables; and
- (3) a model with SE that includes both components.

Table II presents the results of a regression analysis of the first two models with exploration and exploitation factors on sales growth as a performance indicator.

Model 2 is significant at the level of 0.002. The *R* Square is 0.069, which means that the model explains 6.9 percent of variance in growth of sales. The *R* Square change is also significant at the 10 percent level, which means that the impact of exploration predictor variables is significant.

EO is not significant in the model, which means that its effect on firm performance cannot be determined. Entrepreneurial values have positive significant estimations of coefficients at the 10 percent level of significance. Entrepreneurial values shared in the company have a positive relation to firm performance as represented by sales growth. While one of the variables is not significant and the other has a positive relationship, we can conclude that *H1* is somewhat supported.

Model 3 testing the influence of exploitation on firm performance is significant at the level of 0.001. *R* Square is 0.112, which means that the model explains 11.2 percent of the variation in dependent variable. The *R* Square change is significant at the 5 percent level, so the exploitation predictor variables have significant impact on the model.

The variable “investments” received a positive estimation of coefficient at the 5 percent level of significance. The variable “knowledge resources” did not receive significant estimations of the coefficient, so its effect on growth of sales cannot be determined. Organizational learning received positive significant estimations of coefficients at the 10 percent level of significance. Thus, it can be concluded that the higher level of organizational learning in the company leads to higher level of sales growth.

Developmental changes have a positive coefficient at the 5 percent level of significance. This confirms the idea that companies that carry out incremental changes to improve their products or some processes tend to have higher sales growth than companies that do not carry out incremental changes. However, transitional changes have obtained negative estimations of coefficient at the 1 percent level of significance. This means that firms conducting these kinds of changes have lower sales growth.

As a result, three variables of exploitation have significant positive influence on firm performance, one variable has negative influence, and one is insignificant.

Standardized coefficients are estimated in standard deviations, which represent standard comparable measures and show the relative importance of each variable in the model (Field, 2009). As it can be noticed, in the exploitation part of the model, transitional changes have negative coefficients of -0.212 . However, developmental changes, organizational learning and investments have 0.163, 0.121 and 0.137 which shows that their combined impact in the model is higher than the negative impact of transitional changes. This implies that *H2* can be accepted.

Table III presents the results of regression analysis of the general model.

Table I.
Descriptive statistics and
correlation matrix

Variables	Mean	Std dev.	1	2	3	4	5	6	7	8	9	10	11	12
1. Growth sales percent	96.45	204.38	1											
2. Performance	17.99	26.20	0.037**	1										
3. Age	7.85	4.52	-0.212**	-0.042	1									
4. Size	3.73	1.34	-0.009	-0.056	0.051	1								
5. EO	3.31	0.91	-0.041	-0.128*	0.021	0.129*	1							
6. Values	3.53	1.03	0.123*	0.007	-0.014	0.026	0.102	1						
7. Investments	16.88	20.98	0.140**	0.114*	-0.083	0.118*	-0.004	0.228**	1					
8. Knowledge resources	19.57	4.12	0.035	0.126*	-0.012	0.120*	0.209**	0.198**	0.268**	1				
9. Organizational learning	3.36	0.91	0.092	0.080	0.049	0.126*	0.219**	0.175**	0.091	0.519**	1			
10. Developmental changes	4.06	3.05	0.064	0.006	0.077	0.097	0.073	0.109*	0.161**	0.261**	0.286**	1		
11. Transitional changes	0.56	0.79	-0.118*	-0.026	0.067	0.070	0.072	0.087	0.108*	0.131*	0.200**	0.534**	1	
12. SE	10.14	4.58	0.070	0.135*	0.003	0.199*	0.602**	0.551**	0.404**	0.559**	0.551**	0.509**	0.419**	1

Notes: *Correlation is significant at the 0.05 level (two-tailed); ** correlation is significant at the 0.01 level (two-tailed)

Variables	Model 1 Coefficients	Model 2 Coefficients	Model 3 Coefficients	Model 3 Standardized coefficients
Constant	154.042 ***	113.071 *	133.219 **	
Age	-9.057 ***	-8.750 ***	-9.004 ***	-0.198
Size	5.234	6.485	-1.586	-0.010
HoReCa	28.269	34.529	-15.167	-0.028
ICT	96.246	79.777	48.976	0.081
HoReCa *Size	-16.010	-18.366	-2.124	-0.016
ICT *Size	-25.978	-22.772	-14.266	-0.089
EO		-14.584		0.137
Values		23.413 **		-0.085
Investments			1.337 **	0.121
Knowledge resources			-4.242	0.163
Organizational learning			27.262 *	-0.212
Developmental changes			10.943 **	-0.198
Transitional changes			-54.709 ***	-0.010
R square	0.053	0.071	0.112	
Adjusted R ²	0.036	0.049	0.082	
F	3.143 ***	3.171 ***	3.772 ***	
R ² change		0.018 *	0.059 **	
F change		3.134 *	4.339	
Total number of observations			341	

Notes: Dependent variable: growth of sales; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table II.
Results of regression
analysis: exploration and
exploitation

Variables	Model 1 Coef.	Model 2 Coef.	Model 3 Coef.	Model 3 Standardized coefficients
Constant	154.042 ***	114.753	90.119	
Age	-9.057 ***	-8.962 ***	-8.990 ***	-0.198
Size	5.234	-0.550	-0.342	-0.002
HoReCa	28.269	-9.284	-8.898	-0.017
IT	96.246	32.462	31.515	0.052
HoReCa *Size	-16.010	-4.549	-4.604	-0.035
IT *Size	-25.978	-10.094	-9.500	-0.060
EO		-14.006	-9.455	-0.042
Values		19.157 *	22.196	0.112
Investments		1.112 **	1.196 *	0.122
Knowledge resources		-4.239	-3.900	-0.078
Organizational learning		26.689 *	28.596 *	0.127
Developmental changes		10.855 **	11.502 **	0.171
Transitional changes		-54.75 ***	-53.186 ***	-0.206
SE			-1.963	-0.044
R square	0.053	0.123	0.123	
Adjusted R ²	0.036	0.088	0.086	
F	3.143 ***	3.533 ***	3.274 ***	
R ² change		0.070 ***	0.000	
F change		3.713	0.047	
Total number of observations			341	

Notes: Dependent variable: growth of sales; * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table III.
Results of regression
analysis: strategic
entrepreneurship

The quality of the models is high as the model is statistically significant at 0.001 level. The R Square is 0.123, which means that the predictor variables explain 12.3 percent of variance of sales growth. In Model 2, the adjusted R Square is 0.088 and the change in R Square caused by the addition of control variables to the main predictor variables of the model is statistically significant at 0.01 level. It is 0.07, which means that the unique contribution of the main predictor variables is 7 percent. The addition of the SE variable did not increase the explanatory power of the model. There is zero R Square change and the variable SE does not have a significant influence on sales growth.

In Model 2 testing the relationship between SE factors and growth of sales, four out of seven variables have significant positive relationships, two of the variables did not receive significant estimates and only one variable has a negative effect on sales growth. Model 3, however, showed that the combined effect of exploration and exploitation factors does not have a significant impact on sales growth.

As the result, $H3$ should be declined.

In order to test the hypotheses on perceived performance indicators, the weighted performance index was taken as an additional dependent variable. The results of the regression analysis are shown in Table IV.

Two models are significant on the level $p < 0.1$. Model 2 explains 6.2 percent of all variation of the dependent variable (R square = 0.062). Model 3 explains 6.8 percent of the variation (R square = 0.068). In Model 2 including all variables of exploration and exploitation, two variables have received significant estimation: EO and Investments. Both variables have a positive relationship to firm performance.

Variables	Model 1 Coef.	Model 2 Coef.	Coef.	Model 3 Standardized coefficients
Constant	21.887 ***	3.006	24.424	
Age	-0.160	-0.130	-0.112	-0.019
Size	-0.811	-1.674	-1.854	-0.094
HoReCa	-5.668	-8.777	-8.956	-0.130
IT	15.767	17.800	18.603	0.240
HoReCa *Size	0.765	2.429	2.443	0.145
IT *Size	-2.479	-2.787	-3.293	-0.161
EO		4.104 **	0.483	0.017
Values		-1.170	-3.529	-0.138
Investments		0.134 *	0.063	0.050
Knowledge resources		0.478	0.206	0.032
Organizational learning		0.0752	-1.287	-0.045
Developmental changes		-0.268	-0.763	-0.088
Transitional changes		-2.421	-3.739	-0.113
SE			1.584	0.284
R square	0.018	0.062	0.068	
Adjusted R^2	0.000	0.025	0.028	
F	1.009	1.658 *	1.691 *	
R^2 change		0.044 **	0.006	
F change		2.193	2.046	
Total number of observations			341	

Notes: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; dependent variable: perceived performance

Table IV.
Results of regression
analysis: dependent
variable performance

In the Model 3, which includes the combined effect of exploration and exploitation factors on firm performance, the variable SE did not obtain significant estimations although the explanatory power of the model has increased 0.2 percent.

Discussion

The goal of this study was to assess the influence of strategic entrepreneurship on the performance of Russian SMEs. To achieve this goal the authors took as the basis the model of SE proposed by Ireland and Webb (2007), which includes two components: exploration (opportunity-seeking behavior) and exploitation (advantage-seeking behavior). Based on this approach, we developed a model of SE, which includes several elements of each of the concepts. Exploration includes the firm's ability to develop an EO and entrepreneurial culture. Exploitation consists of organizational capabilities associated with investments in resources, organizational change and organizational learning. Taking into account the context of the development of Russian SMEs, hypotheses were developed about the positive impact of these abilities on firm performance. Testing of the formulated hypotheses was carried out on a sample of 500 SMEs from the three most rapidly growing industries in Russia – ICT, Trade and HoReCa. The results of the empirical analysis lead to the following conclusions.

First, it can be stated that exploration in general has a positive influence on performance in Russian SMEs. However, from the two components of exploration, we found only evidence of positive impact on the results of entrepreneurial culture. While we could not test the influence of EO because the variable did not receive significant estimations, EO can have an indirect influence on firm performance through innovations and changes conducted in a company. At the same time, the statement of Russian company top managers or owners that innovative, proactive and risk-taking behavior is supported in the company may not always result in actual innovation and proactive behavior. Though an orientation on exploration is important, it cannot bring actual results without the exploitation of those opportunities. In Russia, the entrepreneurial method of doing business has higher levels of risk for the company than in the West, and, obviously, from time to time reduces the sales volumes of companies, thereby slowing the rate of sales growth (Kulikov and Shirokova, 2010).

The influence of EO on firm performance in Western companies has been studied widely, and the results varied from high positive relationship of EO to firm performance to a lower relationship and even no significant relationship between them (Rauch *et al.*, 2009). Covin *et al.* (1994) have found the relationship of EO to firm performance insignificant and suggested that only a good match of EO with strategic mission and organizational structure would have an effect. Some empirical studies showed that the relationship of EO and firm performance differs depending on the type of industry and characteristics of the environment. Rauch *et al.* (2009) found that EO has a higher significant relationship to performance in high-tech than in traditional industries. As the biggest response group of the sample refers to the trade industry, which is a traditional industry, the low significance of EO in the model is natural. Besides, we believe that EO may have an influence on firm performance in a long-term perspective while we have been studying short-term effects.

At the same time the results of our analysis showed that entrepreneurial values have a positive influence on firm performance. Entrepreneurial values shared by the employees of the company represent an entrepreneurial culture, which supports exploration activities in the company. Innovation, personal proactiveness, creativity

and freedom, readiness to take risks and determination to have leadership on the market have a positive influence on firm performance as the employees of the company are devoted to entrepreneurial behavior in the everyday work of the company and are constantly alert to internal and external opportunities.

Entrepreneurial culture has been regarded as an important factor influencing firm performance not only in theoretical studies, but also in some empirical research. For example, Kyriakopoulos *et al.* (2004) found that entrepreneurial culture, including values mentioned above, had a greater significant relationship to firm performance than did specific structure.

Thus, in general, we believe that exploration or opportunity-seeking behavior has a positive impact on the performance of Russian SMEs, which confirms the need to develop an entrepreneurial culture and values among the employees of these firms. It also means that among the main factors of competitiveness of Russian SMEs in today's turbulent business environment are the ability to implement entrepreneurial behavior and corporate entrepreneurship. This result is consistent with the findings of Zahra *et al.* (2000), that corporate entrepreneurship is the key for emerging economy firm. This contradicts the idea that success of Russian SMEs depends on the availability of administrative resources and connections in government offices. We have provided evidence that the success of Russian SMEs depends on the ability to develop entrepreneurial skills among the employees of their companies.

Second, we found that exploitation or advantage-seeking behavior also has a positive influence on SMEs performance. Exploitation as represented by investments in internal resources, importance assigned to knowledge-related resources, organizational learning, developmental and transitional changes has a positive relationship to firm performance.

Investments in internal resources have a positive influence on firm performance. Investments in brand development, equipment, personnel training, management of intangible assets and R&D imply continuous development of the company and increase in its exploitation abilities. Development of company resources through acquisition and accumulation enables it to create value and increases its chances to achieve sustainable competitive advantage.

Russian SMEs perform relatively well in terms of return on invested capital; during the last five years, small enterprises were, as a rule, more effective than large and medium enterprises, in terms of the return on equity (Russian SMEs, 2002).

The importance assigned to knowledge-related resources of the company did not receive significant estimates. The influence of this factor cannot be determined. This can happen due to several reasons. The evaluation by firm managers of the significance of specific resources does not necessarily imply that they are developing these resources or that they have a significant amount of them in their company, but rather, it could also indicate that respondents felt they were "in need of" them. The impact of this factor is tightly connected with the consistency of managerial decisions in the company, meaning that giving importance to a resource will lead to its development in the company. According to Zhuplev and Shtykhno (2009), difficulties in acquiring business knowledge and skills gained a much higher priority in the ranking (rank 6) in 2008 compared to 1994 (rank 16) among Russian SMEs. It is an unexpected result showing that managers began to see their needs in knowledge-related resources but found it difficult to acquire these resources.

The level of organizational learning in the company has a significant positive relationship with sales growth. The companies that analyzed the results and experiences they had at the end of each project, put their experience and knowledge into documents, used the experience of successful companies from the same and other industries and conducted changes suggested by partners are able to learn faster, accumulate their knowledge and have lower risks of losing this knowledge. Organizational learning is one of the instruments used to retain knowledge accumulated in the company even after employees leave it. Organizational learning adds to the ability of the company to manage resources strategically as well as to exploit opportunities and conduct changes. The fact that it has a significant positive relationship with firm performance is supported by several empirical studies (e.g. Tanriverdi, 2005; Daud and Yusoff, 2010).

The analysis of the influence of change on firm performance returned controversial results. Developmental changes have a positive impact on firm performance. This means that companies conducting small improvements are likely to increase their performance. However, transitional changes received a negative influence on the firm performance. This result can be explained by the fact that different types of changes differ in their effect on the organization. While developmental changes improve the internal processes of the organization, they can be reflected in sales growth in a short time period. Transitional changes, on the other hand, require a long time for their full implementation and for positive results to arise. Significant changes in an organization such as changes of structure, culture or strategy need time and careful planning to be carried out. They may come as a shock to employees and managers of the company and require time for adoption. Transitional changes imply the elimination of some contact with the external environment and the development of new ones. These have an effect over the long-term period in emerging market SMEs (Shirokova *et al.*, 2010). Wheatley and Kellner-Rogers (1998) mention that CEOs report up to 75 percent of their organizational change efforts having no expected positive results. Instead, only the negative effect of change arises. This can happen due to poor support of managers during the transfer and inability of employees to change. Until the organization fully adapts to the change its performance decreases. Only after a longer period of time will the transitional or transformational change have a positive influence on firm performance.

Third, we could not detect a relationship between SE in general and the performance of Russian SMEs. The combined effect of exploration and exploitation was found to be insignificant, which means that SE in general does not have a significant influence on firm performance. The fact that the combined effect of SE was insignificant in the model can be explained by the multidimensional nature of exploration and exploitation in the company in the short-term period. Transitional changes have a negative impact on performance, although in the long-term they can provide a company with faster development and competitive advantage. This counteracts the positive influence of developmental changes in the short-term period. EO and the significance assigned to knowledge-related resources also have an impact on the company over the long-term. While some of the companies might have implemented these practices a long time ago and achieved positive results, others might have just adopted them and as significant, transitional type changes they had little positive or even negative effect on their sales growth. This dispersion leads to a lower correlation between combined exploration and exploitation variables and dependent variables and the insignificance of the SE variable.

In addition, it is possible that attempts to combine opportunity-seeking and advantage-seeking behavior in Russian SMEs, which leads to the necessity of balancing their actions between exploration and exploitation, are not very successful yet. Also the result can be explained by the fact that we studied the influence of SE on firm performance in the short-term perspective, nonetheless, we believe that the combination of opportunity-seeking and advantage-seeking behavior has a significant effect especially in the long-term. This will not always be reflected in the short-term indicators of firm performance.

Moreover, we have to take into account the specifics of the studied firms included in the research sample in terms of their heterogeneity. For example, research that studied the same industries (Kulikov and Shirokova, 2010) showed that in different industries different intrafirm orientations prevail. This influences firm results differently. For example, wholesale and retail trade in Russia is an industry with high competition where it is impossible to conduct business without offering something new (products, services) or without entering new segments relying on risk. The rules of the game in this industry are mostly defined by the ability to take risk, react quickly to market changes, foresee industry changes in customers' tastes and tendencies in changes of customer service, changes in the trade format (appearance of internet-shops and electronic commercial devices), and the sale of product innovations (Wiklund, 1999). In HoReCa, despite worldwide tendencies to gather in networks and changes in strategy and business processes in the world restaurant and hotel business, in Russian conditions firms in this industry behave more conservatively, not changing chosen ways of business conduct. A possible reason for this is the fact that the market is low-saturated and has a low level of competition. Success is often dependent on ownership of territory (unique resources), the availability of which allows the company to grow successfully and increase growth rates. Besides, firms of this industry are affected to higher extent than firms of other industries by government authorities. So the growth of the firm can depend on external factors more than, for example, in the ICT industry where the main resources are intellectual property and intellectual capital, implicit and intangible assets. In the ICT industry there is no major difference in firm development compared to similar firms in Western environments, as this industry is the most knowledge-intensive. Firm performance in this industry will depend, first of all, on the availability of knowledge resources and investment in these resources. Thus, considering that in different industries the decisive influence on firm performance has different factors, we could not get a significant result of the combination of these factors on firm performance in all three industries. Further research of SE influence on firm performance in each industry is needed.

Fourth, testing the model on a perceived performance index showed that two factors have significant positive relationship to perceived firm performance: EO and investments in internal resources. The subjective nature of the dependent variable can relate to these results as the company managers implementing an EO in the company are more likely to be satisfied with the performance. Even if some of their current indicators such as sales growth or profit are not very high, being entrepreneurially oriented they are ready to take risks and implement innovations. This result is supported Covin and Slevin (1989) mentioned above. As they were investigating the influence of EO on firm performance, they were using the same scale for EO and the same measure of firm performance in their study. As the result, EO was positively related to firm performance in a hostile environment.

The perceived index of firm performance is also closely related to investments in the company. It can both refer to actual improved company performance due to investments in internal resources; however, it can also refer to the fact that managers satisfied with their firm performance are more likely to make investments.

Conclusion

The emerging economies have become important partners in the production and delivery of manufactured goods and a wide range of services (Rajshekhar *et al.*, 2011). Today's global business environment is dynamic and constantly evolving. Hence, knowing how to adapt and to address a changing environment successfully have become critical challenges for any firm. This challenge is even more crucial for SMEs in emerging economies where economic institutions raise serious adaptation problems for firms (Zhou *et al.*, 2006).

SMEs play an important and strategic role in the economic development of a country. Russia represents a unique context for studying the behavior of SMEs as they operate in a more hostile, turbulent and unpredictable environments than in developed countries. Due to the fact that SMEs in Russia often do not have enough resources, limiting their opportunities for growth, they must find new ways of doing business in order to be successful and compete in both domestic and global business environments.

Our findings show that in emerging markets like Russia the SMEs' success is dependent on the ability to develop strategic entrepreneurship consisting of exploration and exploitation activities. With the increased level of involvement of Russian firms in international business and competition in the global marketplace, SE represents both a motive and a tool for internationalization that could help create a competitive advantage in the global business environment.

Implications

The results of this study can be helpful for researchers of entrepreneurship and international business (IB) in emerging economies, particularly in Russia. We have proposed an original model of SE, which includes several key elements associated with the opportunity-seeking (exploration) and advantage-seeking (exploitation) behaviors. This model can be supplemented by other elements and tested on the example of other firms from different countries.

A major practical implication of the study is the identification of some factors increasing SME performance. Russian managers and entrepreneurs who are wishing to outperform their competitors either in domestic or international markets can focus their attention on the development of entrepreneurial culture, development of innovative and a creative atmosphere within the company which stimulates readiness to risk and tolerance to mistakes. It is also important for managers of Russian SMEs to understand that not all changes can have immediate positive results on firm performance. The lack of immediate results can discourage managers looking for fast growth, but significant changes require time and the companies actively innovating are more likely to develop competitive advantage and sustain it in the long-term perspective.

Also the results of our research show that the success of Russian SMEs depends on not only possession of personal connections with the "right people" in the government but also on the development of the firm's capabilities focused on exploration and exploitation. This result shows that Russian SMEs have to pay more attention to

creation of organizational processes aimed at sustaining and development of exploration and exploitation. Exploration's success depends on the firm's ability to create an entrepreneurial culture and climate of creativity, innovativeness, and risk-taking. To create this atmosphere it is necessary to use cultural, operational and structural mechanisms that stimulate and develop exploration. For example, it is necessary to create an organic organizational structure to develop and maintain these mechanisms (Covin and Slevin, 1988) and decentralize the decision-making process to establish a creative atmosphere that encourages innovation and proactivity among employees.

Exploitation requires other organizational processes aimed at advantage-seeking behavior. Exploitation rests on knowledge of a proven innovation (i.e. product, process, or administrative). It is characterized by structural and cultural mechanisms that allow the firm to focus on a core set of knowledge and capabilities (Ireland and Webb, 2007). To create these organizational mechanisms there is a need to invest in the knowledge resources of the firm, organizational learning and organizational change aimed at firm development.

At the same time, achieving sustainable competitive advantage of orientation based only on exploration and exploitation cannot be enough. That's why, although we could not find a significant relationship between combined exploration and exploitation with firm performance, we believe that it is necessary to seek the optimal balance between these two elements of SE.

Limitations and future research directions

Our study's findings should be considered in the context of its limitations. The first limitation is associated with the sample of the study which includes companies operating only in three industries and from two Russian cities. This does not allow us to generalize the conclusions to the general population of Russian SMEs as well as to the other emerging economy countries. Russia has its own cultural, political, and social climates, and our model may apply with variations in other settings. Future research directions include the study of the specifics of SE development in different industries, different regions of Russia and in the different emerging economies countries.

Second, because of the difficulty of collecting data on SMEs in Russia, we were only able to collect self-reported survey items from one top-management member in each firm, which has the potential to lead to common method bias (Tang and Hull, 2012; Podsakoff *et al.*, 2003). Thus, following the recommendations provided by Podsakoff *et al.* (2003), we have adopted various measures to control for the possibility of such common method bias. To increase the validity of our model, we used a second, archival data source to calculate the firm performance. Also, the respondents were assured before they participated that the survey was anonymous, and only summarized test results would be released.

Third, two indicators of firm performance are used for the analysis, one of which is a subjective measure. As an objective measure of firm performance, the sales growth rate for one year was taken which allowed us to evaluate the influence of SE only in the short-term perspective. Thus, for future research the use of other firm performance indicators should allow both a short-term and a long-term perspective.

One of the results of the study is the failure to support the hypothesis concerning SE influence on firm performance. This leads to several major directions for further research including studies of the influence of this model of SE on firm performance in

different settings. For example, our model of SE can be used in a more homogeneous sample, e.g. firms of one industry. Besides, we think that in different industries the influence of each factor included in exploration, exploitation and SE can also be different in the short- and long-term perspective. Moreover, future research can be aimed at searching for organizational mechanisms, which support the optimal balance between exploration and exploitation and allow firms to engage simultaneously in opportunity-seeking and advantage-seeking behavior.

Notes

1. According to Federal Law of 24 July 2007 N 209-FZ “On the development of small and medium enterprises in the Russian Federation”.
2. Russian Public Opinion Research Center (VCIOM) is the oldest and the leading marketing and opinion research company in the post-Soviet space. See more information about it: <http://wciom.ru/>
3. Most of the respondents agreed to participate in research when they knew it was conducted by VCIOM with St Petersburg University.

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Variable	Questions	Scale	Cronbach's alpha
Growth of sales	Percentage increase in sales volume from 2006 to 2007		–
Perceived performance	Multiplying the level of satisfaction of top management with company profit, sales level, profit to sales ratio and market share by the degree of importance they assign to each of them	5 to 125	–
Entrepreneurial orientation	In general, the top managers of my firm favor a strong emphasis on R&D, technological leadership and innovations How many new lines of products and services has your firm marked in the past five years? Changes in products or services have usually been quite dramatic? In dealing with its competitors my firm typically initiates actions which competitors then respond to Is very often the first business to introduce new product/services, administrative techniques, operating techniques, etc Typically adopts a very competitive undo clashes, the competitors' posture In general, the top managers of my firm have a strong proclivity for high-risk projects (with chance of very high return) In general, the top managers of my firm believe that owing to the nature of the environment, wide-ranging acts are necessary to achieve the firm's objectives When confronted with decision-making situations involving uncertainty, my firm typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities	1 to 7	0.799
Entrepreneurial values	Indicate on the scale whether Innovations, personal initiatives, creativity, ability to risk and orientation towards market leadership are encouraged in your company	1 to 5	–
Knowledge-related resources	Estimate the resources of your company by their importance: know-how, Technologies, Patents/licenses, qualified employees, professional managers	1 to 5	0.758
Investments	What percentage of the income your company spends for: brand development, investments in equipment, personnel learning, processes of intangible assets' management (know-how, technologies, patents, databases etc), R&D	0 to 100%	0.612 (continued)

Table AI.
Measurement scales used
in the study

Variable	Questions	Scale	Cronbach's alpha
Organizational learning	Indicate, whether the following statement is consistent with your company: In the end of any project we analyse deeply the results and exchange our experience It is common practice in our company to describe and document practical experience and knowledge We implement in our activities the experience of most successful companies in our industry and from other industries We implement the ideas, which come from our partners (clients, suppliers, subcontractors, etc)	1 to 5	0.762
Developmental changes	Indicate whether your company has undertaken any of the following initiatives over the last two years. If yes to which extent this change was significant for your company? Significantly upgraded an existing product line/service Introduction of new IT-systems	0 to 5	0.626
Transitional changes	Indicate whether your company has undertaken any of the following initiatives over the last two years. If yes to which extent this change was significant for your company? Agreed to a new joint venture with a foreign partner Changes in structure Changes in strategy Changes in the company business processes Changes in organizational culture Introduction of new reward system	0 to 5	0.95
Age	Age of the company by 2008		
Size	Logarithm of the number of employees		
Industry	Wholesale or Retail Trade; Hotels, Restaurants and Cafes (HoReCa) or Information and telecommunication (ICT) industries		

Table AI.

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