

Partnerships as internationalization strategy: Russian entrepreneurs between local restrictions and global opportunities

Thomas W. Thurner · Mikhail Gershman · Vitaly Roud

Published online: 27 March 2015

© Springer Science+Business Media New York 2015

Summary highlights

Contributions: This paper studies the small and often overlooked group of internationally created research-driven ventures and discusses their impact on Russia's economy. Although collaboration as a strategy in innovation management is actively discussed (see for example the debate on open innovation), collaboration as an internationalization strategy has received somewhat less attention. As most contributions examine the developments of networks after internationalization has taken place, little is known about how such partnerships are built and which network strategy will succeed under different cultural and institutional circumstances.

Research Questions/Purpose: We study international collaborations as a strategy for Russian SMEs and a group of 'born-global' firms established by partners from Germany and Russia for more evidence of networks and partnerships to understand how firms benefit from these.

Results/Findings: International cooperation is seen to be a resource-intensive but rewarding strategy. Such companies invest more than 10 % of total sales into innovation. On the other side, companies that engage in international cooperation constitute the largest proportion of highly profitable enterprises. Building on previously established networks which allow new knowledge-intensive assets to be formed, these companies introduce novel products and processes to the Russian market and develop them further. Partnering with international colleagues allows these start-ups to overcome some of the difficulties entrepreneurs face in Russia.

Limitations: The paper uses a quantitative study of Russian SMEs and a qualitative study of 10 Russian-German born-globals. It would be interesting to see more intercultural comparisons with start-ups between teams from other cultural backgrounds.

Theoretical Implications and Recommendations: Previous contributions on Russia have already suggested the importance of networking for overcoming local obstacles. Firms based on both emerging markets and advanced economies get support from different types of networks for the discovery and exploitation of business opportunities. Thereby, they increase their learning opportunities beyond the rather restricting Russian environment and learn much about international entrepreneurship.

Practical Implications and Recommendations: While such ventures get access to knowledge generated outside Russia, they also benefit greatly from their partners' ecosystems which allow them to avoid the obstacles in their home markets. For policymakers, the born-global strategy should be understood as a very valuable source of knowledge transfer. These internationally active teams are creating state-of-the-art technologies which potentially have immense value for economic development.

T. W. Thurner (✉) · M. Gershman · V. Roud

International Laboratory for Economics of Innovation, Institute for Statistical Studies and Economics of Knowledge, National Research University Higher School of Economics, Myasnitskaya 9/11, 101000 Moscow, Russia
e-mail: tthurner@hse.ru

Abstract This paper studies the small and often overlooked group of internationally created research-driven ventures and discusses their impact on Russia. Building on previously established networks which allow new knowledge-intensive assets to be formed, these companies introduce novel products and processes to the Russian market and develop them further. While such ventures get access to knowledge generated outside Russia, they also benefit greatly from their partners' ecosystems which allow them to avoid the obstacles in their home markets. Thereby, they increase their learning opportunities beyond the rather restricting Russian environment and learn much about international entrepreneurship.

Abstrakt Dieser Artikel behandelt die kleine Gruppe internationaler forschungsorientierter Start-ups in Russland und diskutiert deren Bedeutung für die russische Wirtschaft. Diese Gründungen entstehen aus etablierten akademisch-geprägten Netzwerken und konzentrieren sich auf die Vermarktung eigener Forschungsergebnisse. Dabei bringen diese Start-ups nicht nur neue Technologien nach Russland, sie entwickeln diese auch weiter. Wir zeigen statistisch dass Unternehmen, die diese internationale Kooperation als Strategie verfolgen, finanziell höchst erfolgreich sind. Anhand einer Gruppe von deutsch-russischen Kooperationen zeigen wir weiters, wie wichtig die Zusammenarbeit für die russischen Partner ist um die lokalen Schwierigkeiten erfolgreich zu vermeiden und um sich das notwendige unternehmerische Know-how anzueignen.

Keywords Internationalization · Partnership · Born-globals · Russia · Russian Federation · Innovation · Networks

Introduction

Entrepreneurial success is a function of timely development and deployment of assets, inter-firm relationships and human capital both at home and abroad (see, for example, Al-Aali and Teece 2014; Oviatt and McDougall 2005). Successful internationalization strategies in a globalized world have attracted special attention and the volume of literature on international entrepreneurship is growing rapidly. The slowdown of economic growth in Western economies and the rising activity of actors from the BRICS countries has shifted interest to innovation-based internationalization strategies (e.g. Hagen and Zucchella 2013) or to strategies focused on emerging markets (Bruton et al. 2008; Yamakawa et al. 2008; Zahra and George 2002; Jones et al. 2011; Leonidou and Samiee 2012). Scholars have debated whether theoretical perspectives developed in mature market contexts are equally valid in emerging economies (e.g. Bruton et al. 2008; Shenkar and Von Glinow 1994). The very specific institutional settings in emerging markets may require a very different mindset and strategy to succeed (Manev and Manolova 2010; Peng and Heath 1996).

While the literature on entrepreneurship in China or India is expanding rapidly, entrepreneurial activities in Russia still remain a mystery. Most studies on Russia study domestic entrepreneurs (Seawright et al. 2008), especially retrospectively over the 20 years following the collapse of the Soviet Union (Manev and Manolova 2010). There is a consensus on the negative effects of the institutional environment in which entrepreneurship in Russia is taking place (Puffer et al. 2010); others blame the lack of

trust and a historically grown cultural rejection of entrepreneurship (McCarthy et al. 1997; Puffer et al. 2010). Incomplete transition processes go hand in hand with a high level of corruption and dysfunctional institutional legacies which prevent, among others, successful internationalization processes (Tovstiga et al. 2005; Bucar et al. 2003; Zashev and Dezhina 2010). Most recently, Volchek et al. (2013) empirically analysed the internationalization strategies of Russian SMEs and suggested that the initial decision to internationalize depends on the firm's internal ability to innovate (which is generally low), while growth is a function of the normative institutional environment.

Indeed, internationalization as an individual decision by a single Russian SME is fairly rare. A direct internationalization approach is unlikely as access to risk capital is rather limited for Russian companies. Moreover, as a result of the cut in private and public spending on research and development (R&D), most Russian companies have lost their innovation edge and lag behind their western counterparts in terms of technology. From a Russian perspective, these findings are of little surprise. However, collaboration with international partners is a much more common phenomenon and has indeed produced promising results. While studies exist on the large-scale collaborations between actors in the extractive industries—such as between ExxonMobil and Rosneft or between Gazprom and Petronas or E.ON (e.g. Thurner and Gershman 2014; Thurner and Proskuryakova 2014), the internationalization strategies of Russian SMEs with western counterparts have not received any attention. We therefore want to close this gap in the literature by providing an empirical analysis of the extent and consequences of international collaboration of Russian firms with their partner organization.

Previous contributions on Russia have suggested the importance of networking for overcoming local obstacles (e.g. Volchek et al. 2013). This is in line with the international entrepreneurship literature, which has highlighted early ventures' integration into networks as a distinguishing feature (Oviatt and McDougall 1994). Firms based in both emerging markets and advanced economies get support from different types of networks for the discovery and exploitation of business opportunities (Kontinen and Ojala 2011). New ventures are strongly influenced by ties and knowledge already developed before they are created, which allows them to internationalize almost immediately (Shane 2000). As most contributions examine the developments of networks after internationalization has taken place, little is known about how such partnerships are built and which network strategy will succeed under different cultural and institutional circumstances (e.g. Hitt et al. 2000). In particular, insights into collaborations between partners from advanced economies and emerging markets are largely absent (e.g. Kiss et al. 2012). Network scholars suggest studying the conduct and performance of firms in light of the network of relationships from which they emerge (Gulati et al. 2000).

This paper answers calls for studies that focus on networks and how they influence the development of early ventures. We therefore answer the call for more evidence of networks and partnerships to study how firms benefit from these. We study 'born-global' firms established by partners from Germany and Russia to develop and commercialize technology. Born-globals distinguish themselves from other early internationalization strategies as they do not gradually accumulate capabilities and resources (Knight and Cavusgil 2004) but instead pursue business opportunities on international markets right from the start. The born-globals we study act in a world where know-how is no longer held by

individuals or found in one place but is geographically dispersed (Pisano et al. 1988). When cooperating with international partners, commonly developed assets might prove commercially valuable. Here, networking is no longer needed for efficiency but is essential for the company's very existence. Consequently, we study ten early-stage ventures that were founded by teams of scientists from both Germany and Russia. Studying born-globals holds great potential for further insights into international entrepreneurship. Nevertheless, knowledge about born-globals is limited and many scholars call for a deeper understanding of early and sustainable internationalization processes through born-globals (e.g. Prange and Verdier 2011; Sapienza et al. 2006; Weerawardena et al. 2007; Zetting and Benson-Rea 2008). More information about innovation-led born-globals is important for various interested parties. Policymakers, with the rise of exciting new technologies like nano- or biotechnology, have begun to create favourable environments for scientists to incentivize their move into the business world.

Born-globals and early internationalization strategies

The early internationalization processes of start-ups have received attention since the 1990s (e.g. Oviatt and McDougall 1994; Knight and Cavusgil 1996; Autio 2005; Rialp et al. 2005; Covin and Slevin 1991; McDougall and Oviatt 1996; Coviello and McAuley 1999). The international business literature became particularly interested in the speed with which firms start to export (Amal and Freitag Filho 2010). Consequently, many definitions of born-globals focus on the quantitative aspects of the internationalization of core entrepreneurial activities (see, for example, Lumpkin and Dess 1996; Preece et al. 1999; Wolff and Pett 2000). Hence, one definition of born-globals suggests that they have an export intensity of 75 % within 2 years of inception (Chetty and Campbell-Hunt 2004). Evers (2010) suggests 25 % of total sales in foreign countries in the first year of trading. Gabrielsson and Kirpalani (2012) compare different definitions (see also, for example, Welch and Luostarinen 1988; Rennie 1993; Oviatt and McDougall 1994). Instead of pointing towards one-dimensional measures, Oviatt and McDougall (1994) present a framework which introduced four filters to check for necessary and sufficient elements for the sustainable success of internationalization strategy by early ventures. The first filter introduces a transaction cost-based separation, between transactions taking place in markets and those taking place inside firms. With start-ups constantly facing a lack of resources, the second filter suggests that ventures with an 'alternative governance structure' will succeed in their internationalization efforts as they create organizations in networks. For example, Freeman et al. (2006) study the alliances between suppliers, distributors and joint-venture partners as vital growth opportunities. Consequently, the third filter of the framework stresses the 'foreign location advantage' by placing their assets strategically around the globe to secure their best usage. Oviatt and McDougall (1994) suggest that the expected benefits outweigh the cost of foreignness. Such advantages stemming from subsidiaries have been emphasized by various scholars (e.g. Cantwell and

Mudambi 2005; Rugman and Verbeke 2001). Fourth, ventures need to own unique resources to succeed in developing sustainable competitive advantages.¹

An interesting stream of literature suggests examining international entrepreneurship through a network perspective (Coviello and Munro 1995). New ventures are highly influenced by ties and knowledge (McDougall and Oviatt 2000; Jones and Coviello 2005 and Coviello 2006). These networks were built before the venture started and allowed for the internationalization at the time of inception (Shane 2000). Studying networks that predate the ventures is of particular importance for technology and R&D oriented born-globals, as they most likely start to develop their technologies with team members prior to the venture. The firm's network relationships are driven by strong social or personal elements (Ellis 2000; Ellis and Pecotich 2001 and Harris and Wheeler 2005). Network relationships develop over time and grow from simple exchanges to complex multidimensional and multilayered organizational relationships (Larson and Starr 1993). When the business of the new venture gets more complex, such evolving networks help to leverage network ties and mobilize more resources in the pursuit of growth (Larson and Starr 1993). In line with this argument, early ventures actively manage these networks (Coviello 2006). Sharma and Blomstermo (2003) even suggest that the history of the networks will shape the venture's future.

Another rich field of study is the question of partnering (e.g. Fan and Phan 2007; Ojala and Tyrväinen 2009). Many contributions to international entrepreneurship in emerging economies identify a dominant focus on geographically proximate markets rather than sophisticated internationalization strategies (Kiss et al. 2012). Internationalization strategies are more likely through common language among partners and geographically diverse networks (Musteen et al. 2010 in the case of Czech companies). Previous research has found that small and open economies have higher push and pull factors, which encourage the emergence of born-globals compared to firms from larger economies (Luostarinen and Gabrielsson 2006). Born-globals have attracted the interest of scholars in public and corporate governance (e.g. Zahra 2014). However, established companies have also responded to global competition with networking, the outsourcing of noncore business activities and an increased usage of information and communication technology (e.g. Salmela and Lukka 2004; Teece 1986, 2006).

Research has increasingly been interested in internationalization efforts from and to emerging markets (see, for example Sandberg 2014). While research in advanced economies focuses more on explanatory variables such as firm strategy, resources, capabilities and structural characteristics, international entrepreneurship in emerging economies is instead more interested in entrepreneurial characteristics (e.g. Kiss et al. 2012). Besides, the wider international entrepreneurship literature studies rapid internationalization processes predominantly in high-technology firms (Jones and Coviello 2005; Knight and Cavusgil 2004). In emerging markets, however, successful internationalization happens largely in less technologically intensive industries with lower product development costs as entrepreneurs struggle to gain access to rare, inimitable resources (Cuervo-Cazurra and Genc 2008; Elango and Pattnaik 2007; Luo and Tung 2007). Hence, insights from innovation-driven entrepreneurial activities with

¹ Other models proposed by Madsen and Servais (1997) or Rialp et al. (2005) also identify the unique firm-specific resources for competition in international markets (Jones et al. 2011; Knight and Cavusgil 2004).

internationalization strategies focused on emerging countries are in dire need (see e.g. Autio et al. 2011; Coviello 2006).

Internationalization strategies in the Russian context

Russia's economy has expanded greatly in the last decade, yet the country's development has been hampered by unfavourable business and investment climate perceptions. The country has a highly skilled workforce and well-functioning high-technology sectors. Nevertheless, Russia's economy suffers from poor framework conditions: political environment and stability, regulation quality, rule of law and general quality of institutions (Polischuk 2013), wrong incentives and stimuli resulting from flaws in Russia's corporate governance models (Enikolopov and Stepanov 2013). Furthermore, limited access to finance and investment opportunities hinder advanced entrepreneurial activity. In addition, enterprises pursue rents through various forms of vertical integration or close connections with state authorities (Yakovlev 2014). Although the country has received some attention from entrepreneurship scholars (Kiss et al. (2012) reviewed 14 contributions on Russia), there is very little known on how entrepreneurs manage to overcome the still fairly adverse institutional environment. Various studies (e.g. Danis and Shipilov 2002; Manolova et al. 2008; Tominc and Rebernik 2007) show that countries like Hungary, Poland, Slovenia or Latvia have better institutional support for entrepreneurial endeavours than countries such as Russia, Ukraine, Belarus or Moldavia. We assume that in countries like Russia, networks will play a role as partners somehow have to establish contact. Most contributions on Russian entrepreneurship study domestic entrepreneurs (Seawright et al. 2008) or compare Russian phenomena with characteristics of global entrepreneurship. The development of entrepreneurship in the 20 years after the collapse of the Soviet Union has generated especial interest (Manev and Manolova 2010). Most contributions ultimately stress the negative institutional environment in which entrepreneurship in Russia attempts to flourish (Ahlstrom & Bruton, 2010; Puffer et al. 2010). Internationalization strategies of Russian companies have only recently moved up the research agenda. Zashev and Dezhina (2010) or Volchek et al. (2013) suggest that companies struggle with traditional modes of internationalization.

Methodology

We start with a quantitative analysis to construct a holistic picture of the intensity and scale of the cooperative activities within Russian SMEs. Next, we study networks and partnering qualitatively through a series of in-depth interviews. For the quantitative analysis, we use data from the Monitoring of Innovation Activities 2012 survey.² The total sample for Russia includes more than 1000 enterprises active in the manufacturing

² Performed biannually by HSE's Institute for Statistical Studies and Economics of Knowledge (ISSEK) since 2009 within the framework of the European Manufacturing Survey (<http://www.isi.fraunhofer.de/isi-en/i/projekte/fems.php>), the Monitoring of Innovation Activities survey is an internationally harmonized survey aimed at collecting a broad range of indicators on innovation and other dimensions of companies' strategies. The data on Russia are discussed in for example, Gokhberg, Kuznetsova 2011, and Zaichenko et al. 2014.

and information technology sectors. Small and medium enterprises (less than 250 employees) comprise 270 firms which report innovation activities. Within the SMEs subset, we identified a small but highly advanced group of Russian SMEs which cooperate globally. The available data allowed us to identify the scale and intensity of the cooperative efforts in the Russian business environment and to implement a descriptive group-wise analysis and comparison of the companies that pursues different cooperation strategies. To further strengthen our understanding of these partnerships, we identified a sample of born-globals through the Foundation for Assistance to Small Innovative Enterprise (FASIE), which is the largest and oldest Russian public fund that supports small innovative firms.³ FASIE enjoys a high reputation in Russia and abroad in terms of project expertise (Gershman and Kuznetsova 2012). It manages several international programmes jointly with Germany, France and Finland to support Russian science spin-offs. In 2008, FASIE and the International Bureau of the Federal Ministry of Education, Science, Research and Technology of Germany (BMBF) initiated the Russian-German bilateral programme. FASIE finances SMEs from Russia, whereas the BMBF supports their partners from Germany. Ever since, four calls for joint Russian-German research projects were launched to support projects active in technologies of national priority. Over 150 applications were submitted; 50 projects have to date received funding. Together with FASIE, we decided to focus on projects which have won FASIE support more than once. This resulted in ten companies in various high-tech industries (medical equipment and services, engineering, ICT and nanotechnology) based in six different Russian cities: Moscow, Korolev, Saratov, Kaluga, Koltsovo and Kazan (see Table 1). The companies were between 18–24 months old, and the amount of funding allocated by the Foundation was up to 4 million rubles per project. No other support was provided. The interviews lasted between 45 and 60 min and included questions concerning companies' projects, difficulties and the barriers to international cooperation encountered, as well as their prospects for global development. The interviews were conducted in Russian.

Empirical picture of cross-border cooperation by Russian SMEs

We start with an empirical analysis of a sample of Russian SMEs to identify the frequency of international collaboration and the economic consequences of this strategic choice. Around 4 % of Russian SMEs actively innovate, with variation across different industries (e.g. 14 % in manufacturing of medical equipment; and around 12 % in pharmaceuticals or ICT). At a national level, networking is a crucial element of innovation strategies. More than 90 % of manufacturing firms mention at least some type of cooperation with other organizations in their innovation activities.

Physical proximity is highly relevant for the choice of partners. While nearly 85 % of SMEs are connected to various actors within their region of the country, only 65 % of firms expand their networks to other parts of Russia. Global networking is done by less than 25 % of SMEs (see Fig. 1).

The intensity of cooperation with various types of partners is scaled proportionally for different categories of geographic proximities (regional, national, local) with the

³ Source: FASIE website <http://www.fasie.ru/>

Table 1 List of companies

No.	Companies' main activities	City	Industry
1	Adapting and implementing groundwater treatment technologies	Moscow	Engineering
2	Developing and manufacturing nanostructured glass fibres for biological sensors to determine the toxicity of pathogenic environment (cholera, tuberculosis, etc.)	Saratov	Nanotechnology
3	Developing and manufacturing knowledge-intensive air purification and disinfection systems	Koltsovo	Engineering (air-conditioning systems)
4	R&D and production of materials with the increased density of heat flow	Korolev	Engineering (energy)
5	Developing drugs for inflammatory processes to cure various diseases	Moscow	Healthcare (pharmaceuticals)
6	Developing clinical laboratory diagnostic systems based on molecular genetic techniques	Moscow	Healthcare (diagnostics technologies)
7	Developing nano-modified sheet materials for aircraft industry and construction	Kazan	Nanotechnology
8	Developing and producing durable antifriction mineral coatings for friction pairs in machine parts and mechanisms for power engineering, manufacturing and shipbuilding	Kaluga	Engineering
9	Developing treatments, diagnostic systems and medical equipment for treatment of various diseases (in particular, cancer and skin diseases) with the use of nanotechnology	Moscow	Healthcare (diagnostics technologies)
10	Developing cargo management systems basing on 'Internet of Things' concept	Moscow	ICT, Engineering

exception of linkages to R&D institutions. Companies seeking scientific excellence beyond regional boundaries benefit greatly from the availability of S&T results. Typically, common international partners are suppliers and clients, while competitors, service providers, etc. are less frequently used. Only a mere 1.7 % of innovative Russian SMEs cooperate with research centres and universities abroad. Geographic distance influences not only the propensity of communication but also the motives for joint activities. Comparing key objectives for collaboration with research institutions within and outside Russia, research institutions abroad provide new knowledge and access to enter new markets. At the same time, national R&D organizations serve as an important means of human capital development (Thurner & Zaichenko, 2014). Cross-border cooperation is seen to be a resource-intensive but rewarding strategy. Such companies invest more than 10 % of total sales into innovation. On the other side, companies that engage in cross-border cooperation constitute the largest proportion of highly profitable enterprises (see Fig. 2a, b).

Figure 3 shows the correlations between competitive advantages and the strategy of international collaboration. Internationally collaborating firms introduce a larger share of novel products and production processes—at higher cost and speed.

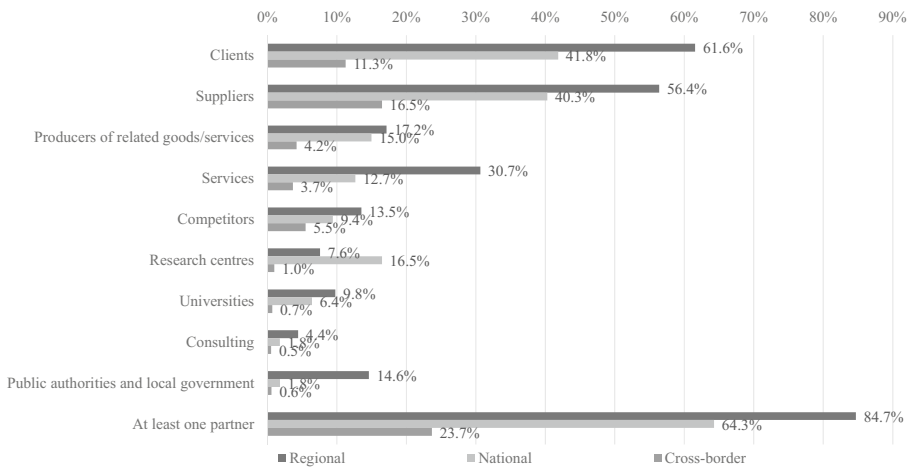


Fig. 1 Share of innovation-active firms that cooperated with the particular types of partners. Source: Monitoring of Innovation Activities of Enterprises 2012, HSE ISSEK

The integration into global knowledge production strongly corresponds with the degree of inclusion in global value chains. SMEs cooperating with foreign partners gain a noticeably larger share of revenues from former USSR regions and other countries (up to 10 % of total sales from export compared to minor non-innovators and domestically contained firms, see Fig. 4).

Furthermore, collaboration with overseas partners should broaden entrepreneurs' strategic horizons, helping them develop their businesses towards new international markets. Among internationally networked SMEs, nearly 40 % identify growth opportunities in former USSR regions neighbouring Russia, and more than 20 % target other countries (compared to 15 and 4 %, respectively, of domestic innovators). As indicated earlier, cooperation is largely geared towards improved innovation results. Indeed, cooperation with partners from overseas is correlated with higher novelty levels of products and processes and strategic targeting at international markets.

Globally active firms are by far the most advanced elements of Russia's overall SME population. Companies interacting with or created by international scientific institutions are even more innovative. Most notably, these companies benefit from the special market-opening function of cross-border cooperation. These findings are notable and show the vital role these companies have for Russia's innovation system.

Exploring the born-globals in more depth

For a deeper understanding of networking strategies employed, we conducted interviews with a sample of successful German-Russian born-globals. One start-up developed and now produces aerial disinfection devices for medical use. Although the initial inputs came from various disciplines and Russian research groups, the team soon realized the need for additional expertise, which came from a leading German research institute:

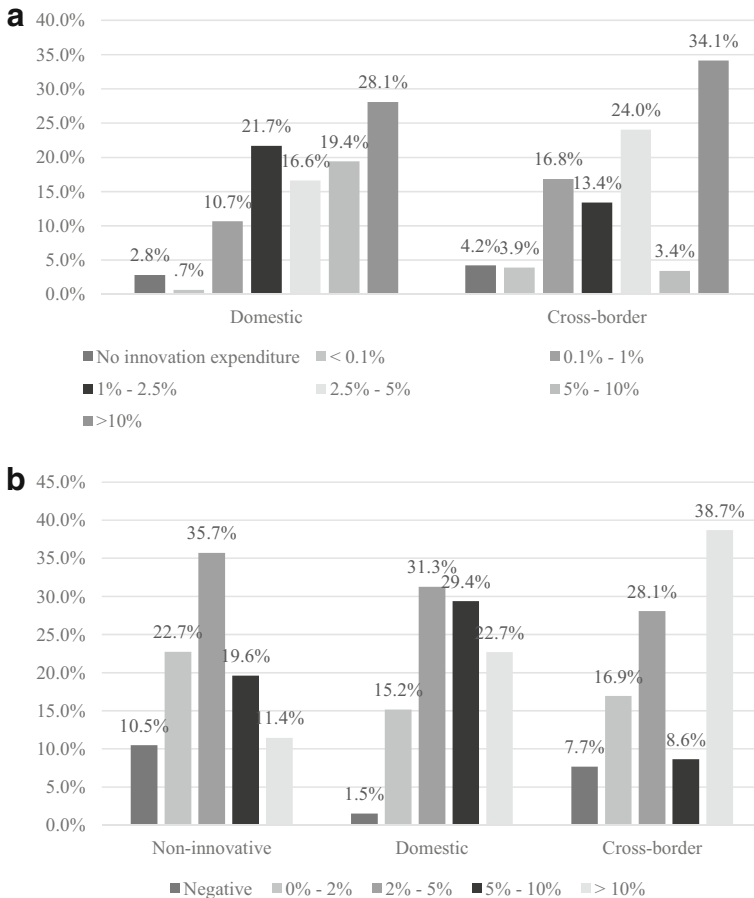


Fig. 2 **a** Expenditure on innovation as a share of total sales by cooperation strategy. **b** Profitability before taxes by cooperation strategy/innovation activity. Source: Monitoring of Innovation Activities of Enterprises 2012, HSE ISSEK

The Germans were “friends of friends”. A professor who works on their campus is a friend of one of our team members. He knew that the Germans did excellent work and that they had the knowledge which we lacked.

The German research group had already gathered experience in the field. By combining knowledge, they developed the devices and the team started a shared company. Here, the partnership relied on intensive personal connections through previous working relationships. The initial contacts were primarily made through academic activities such as workshops and conferences.

Another set-up is documented by a venture founded by a highly regarded Russian research institution and a German company. The team generated expertise in the development of various electronic devices previously developed for clients in different industries. In this cooperation, the German team members put great emphasis on the development and actual manufacturing of electronic control modules as they had great experience in this field. The Russian team was present during the planning and

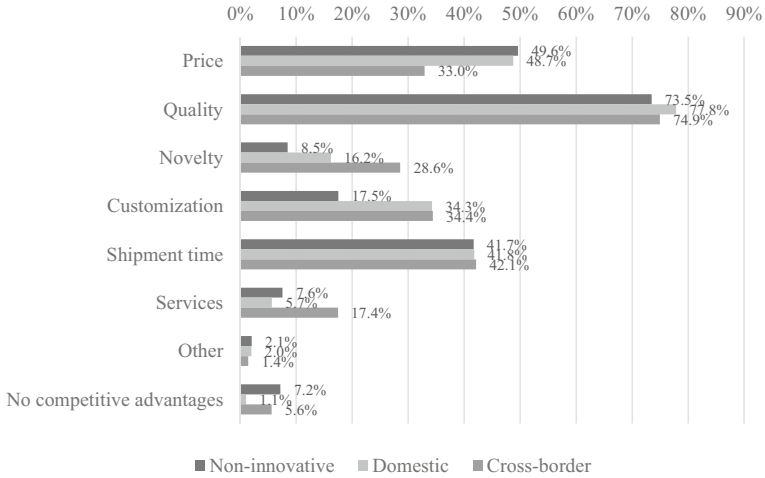


Fig. 3 Self-estimated competitive advantages by collaboration strategy/innovation activity (% of enterprises). Source: Monitoring of Innovation Activities of Enterprises 2012, HSE ISSEK

execution of the experiments and took responsibility for the mechanical design of the detector and the electronics. The German partners benefit greatly from developing basic research knowledge in the field of microelectronics, while the Russian partners were provided with the opportunity to learn how to produce a high quality end product in

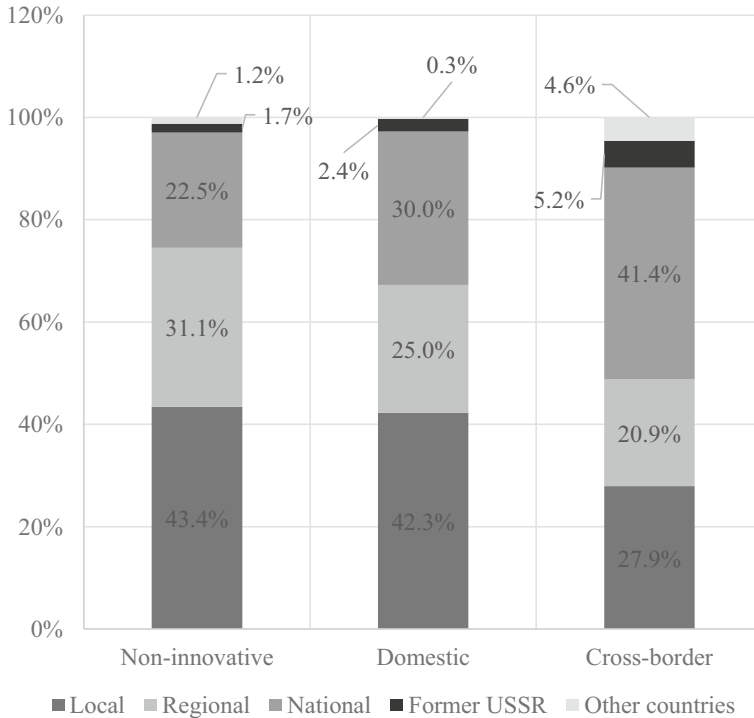


Fig. 4 Total sales distribution along markets by cooperation strategy type/innovation activity. Source: Monitoring of Innovation Activities of Enterprises 2012, HSE ISSEK

state-of-the-art factories. Now, the company uses its knowledge to develop a portable device to detect the concentration of sugar in the blood:

We now own exclusively the developed technologies and have developed problem-solving competences. This structure will allow you to open up new perspectives. The second area of growth is the food industry. Here, we now develop devices to determine food quality.

Another start-up, active in biochemistry, reported entirely different experiences. The company was initially focused on oncology but is now expanding into other industries. Here, their German partners provided basic research. Neither side originally had any intention to commercialize anything but developed exciting results; after publishing their findings in top academic journals, they decided to give commercialization a try. The initiative came from the head of the German team who is a senior expert in the field of laser technology in Germany and had previous experiences in science-based start-ups. He stressed that the technology is highly commercializable and suggested an application for various skin diseases.

A company was founded after developing a technology to increase the density of heat flow in cooperation with their German partners. The German partners provided applied research and market-related information, which allowed the Russian partners to fine-tune their product and continuously improve its usage. The developed module was then transferred to their German partners, which sells the product in Germany and Switzerland. Up to then, the Russian partners had no idea how to actually sell such a product, let alone outside Russia. Now, the team of researchers works simultaneously on the development of different modules and technologies in a kind of portfolio approach. The company has now started a new cooperation with another German company to develop a power source for wireless sensors.

Once the cutting-edge knowledge has been developed, the ventures face operational challenges to commercialize these assets. Having teams from different countries participate in the venture allows access to foreign markets:

Through our members we have de facto access to foreign markets. Next to Eastern Europe, Slovakia, and the CIS countries, we plan to sell in all the Western markets like Germany.

Another born-global which develops diagnostic systems demonstrates this even better. The molecular markers for early diagnosis of periodontitis originated from a collaborative venture between a Russian research consortium and a German private diagnostic laboratory. The start-up is now commercializing a diagnosis kit. The German partner is the sole purchaser of the kit as it is still not cleared for the Russian market. Through its network of health care organizations, the laboratory generates add-on sales of the developed kit which has allowed the company to generate cash flows. The very rigid system of certification in Russia is putting a major strain on the company's finances as it cannot commercialize its product in Russia, although it has received public funding for its research. This is interesting as the Russian-based company simply could not access its home markets and hence could not grow on their home ground. This has also been seen on the other side. While access for other goods to the Russian

market is fairly easy, protecting one's own intangible asset is again fairly difficult. Here, born-globals benefit from access to better intangible asset protection. Although the Russian team tried to register an international patent, they were faced with many difficulties:

We had no idea how to do that. Few people in Russia do actually. This is increasingly difficult for a Russian company alone, but much easier when there is an international partner.

A representative of another start-up points to a similar problem with the registration of patents:

Unfortunately, it turns out that the commercial side of the activity in Russia is sometimes a little difficult. More often it is easier if the representative who wants to patent is based in Europe. We have now been working with our German partner for more than 25 years and have established a trusting relationship.

Local initiatives, such as technoparks, are of great importance and helped the founders to get started. One company was established after winning a small grant from the Administration of the Novosibirsk region. A credit line from the local technopark allowed them to purchase equipment and ultimately to search for an international partner.

As these start-ups are science oriented, access to research funds is vital for their success. However, making use of such state funding requires prior experience with the state financial support system. A founding member mentioned access to research funds and how his experience helped him to gain funds for the venture, again with a company in Germany:

To get money from international funds you have to build up experience. I've been doing this for more than 30 years in the field of atherosclerosis. In this time, I have become very skilled in the art of attracting money. We have regular contacts with foreign colleagues and I constantly travel abroad. The Germans are great partners. They have the most money and the largest quota in the EU.

The Russian funding streams accessible for the kinds of start-ups discussed in this paper are rather limited. The manager of one start-up described the difficulties in getting money when it is needed:

The German partners find finance in their country. In our case, the Russian Fund supported our project, but this money was only available at a later stage. What helped us was getting some of the German funds transferred to us.

The born-globals speak of different ecosystems for innovation in both countries. The Russians in particular look to Germany and appreciate the environment in which their partners operate. Other companies faced different challenges and rather hoped for higher governmental support. Representatives of start-ups mentioned the absence of a public procurement programme as a problem as such a programme could create real

demand for their products. Such measures would also help Russian start-ups lower their production costs.

Most managers we interviewed described the collaboration between partners in a fairly unexciting manner. Companies reported regular Skype calls while other start-ups exchanged team members every now and then. In addition, interviewees welcomed conferences as opportunities to meet and present joint papers. By and large, it seems that companies tend to follow quite traditional scientific means of communication.

Few of the companies referred to the business tools they use. The ventures are run by people who are experimental scientists at heart. Financial planning was largely absent or only done in combination with a business plan.

Our product certainly has a lot of commercial potential. But we have not done any calculations or estimations yet. We have various opportunities to make money. For Russia, it is the sale of licences for production. We have not decided this yet.

Interestingly, most interviewees referred to culture as a crucial factor affecting the management of their ventures. Culture plays not only a vital role in finding the right match but also in managing expectations. As one manager told us:

The experience was very good. Still, we have learned a lot from them, their methods for conducting experiments and experiments on the completeness of the materials....

And:

Prior to working with the Germans, we worked with xxx. We were stuck with this company and had already prepared and submitted an application, but they didn't complete their part and we lost a whole year. With the Germans we were lucky. They were quite good partners.

The companies we interviewed faced challenges in the day-to-day management of administrative issues. For example, our interviewees mentioned difficulties connected to the rigid visa regimes between Russia and the EU. Others struggled with burdensome bureaucracy; visits of both incoming German partners and their own staff to Germany are also very difficult:

The only thing that hurts us are the difficulties around the visa. If there was a visa-free regime, it would be much better. But Skype saves us!

Moreover, importing high-tech equipment is very complex due to bureaucratic customs rules:

As manufacturers of medical equipment, we were surprised that medical equipment can be imported free of duty. For accessories to medical equipment, we have to pay duty. This is a big problem for production. We have to import some components, which unfortunately cannot be produced in Russia. This is fairly difficult to understand. We can import the whole device free of duty but not individual parts.

Despite the challenges of long-distance collaboration, all managers were enthusiastic about their experiences:

We work together well – despite the difficult long-distance collaboration. Russia and Germany have different cultures. Both sides struggle to apply their research results to the development of devices. Of course, remote work imposes restrictions. For us, the experience was definitely rewarding. But for the development of our company this collaboration was everything!

Finally, we questioned how the born-globals actually manage to maintain their competitive advantage. When asked about their experiences with the partnership, all our interviewees were very positive. One representative stated:

I would like more partnerships, because honestly, there are technologies which are not available in Russia. Working with European partners is great. One of our members recently got the opportunity to complete his PhD at a university in Europe.

Most companies searched for more applied knowledge. However, two partnering start-ups both had strengths in basic research. As both the Russian and German partners struggled, the company was expanded and now includes staff from US universities to try to bridge the gap between basic and applied research:

At university x, they definitely have the motivation to engage in applied research! We will continue to develop together.

Besides, this cooperation was triggered by personal connection. The US staff came from a research group led by a Russian who was a classmate of one of the Russian Partners. This made the collaboration much easier.

Furthermore, the manager mentioned a shortage of skilled technical and engineering personnel. Russian companies struggle with the design of innovative products or services due to a lack of experience:

Any sophisticated high-tech innovation project requires the participation of people from various professions (doctors, chemists, ecologists, physicists, etc.) The recruitment of the necessary talent has become a real problem.

These difficulties are also found in other companies. Here again, the international networks that born-globals maintain pay off as scientists who cannot be found in Russia are invited through their partners.

Discussion

Collaboration between actors in the Russian national innovation system is a well-established practice and has yielded considerable success. Interestingly, to this day, most studies on Russia focus on the pure internationalization strategies pursued by a single company. This is even more surprising as there is a long-standing literature pointing out the importance of

networks to overcome local difficulties. We started with a quantitative analysis showing that very few SMEs collaborate for knowledge creation with organizations outside Russia (less than 1 % of all SMEs in manufacturing and ICT). Even fewer actually collaborate with non-Russian research and technology organizations or university spin-offs (estimated at 0.04 % of all SMEs in manufacturing and ICT). Those who do, however, face higher costs but in turn succeed in introducing new products or processes to Russia and are among the most financially successful ventures in the country. Through collaboration, Russian entrepreneurs have found complementary inputs to their knowledge generation processes, which result in the creation of a valuable asset. This connection between openness to collaboration and financial success warrants further investigation. It seems that due to the networks they established before the venture was created, the entrepreneurs were able to develop high quality assets capable of withstanding the competition.

In some cases, the Russian partners provide basic science, while in other cases, they contributed applied knowledge. Sometimes, the German partners used their advanced applied knowledge to turn Russian basic research results into devices ready for the global market. The benefits of collaboration as an internationalization strategy allow Russian partners to overcome a wide array of local problems. First, due to the technology gap that has existed since the end of the Soviet Union, learning opportunities on ground-breaking technologies are much sought after. Access to technological equipment covers scientific development, testing procedures or product design and supply-chain management. We also showed though that learning goes far beyond technological aspects to include access to new markets or protection of intellectual property. Besides the very valuable technology-specific learning, the born-globals also gained access to market-specific knowledge. Most born-globals quickly learned how to sell their product in other countries. This allowed them to overcome the shortcomings of the Russian market. As seen in the case of one company described above, they are unable to sell their product in Russia due to the very strict—and often overly bureaucratic—regulatory regime. Other obstacles for entrepreneurs in Russia often mentioned in previous research include complex customs regulations and the limited availability of risk capital. Access to networks also drives the firms' continuous development. Staying ahead of their game means that most born-globals must look for more international partners to increase their knowledge base. Business skills like marketing or sales experiences are of inferior importance. Instead, the teams search for cognitive proximity.

While the number of born-globals in Russia is very small, they do play a vital role in the Russian national innovation system. Whereas most Russian companies import finished high-tech goods to reduce the technology gap with western nations, born-globals—through their partners—get exposure to a whole range of new ways of thinking. Such learning opportunities associated with entrepreneurial activities have already been identified as a cause of economic growth (Cumming et al. 2014). Unlike many of their peers, they become aware of new business opportunities, of how business is done elsewhere, and they bring these insights back to Russia. Our sample of German-Russian born-globals stressed the importance of personal connections and international networks with the Russian diasporas. These networks emerged out of prior working relations and subsequently led to the founding of the ventures. Many top qualified scientists left Russia in different periods throughout recent history and were welcomed at top western universities. Nevertheless, many of them maintained close contact with their peers in Russia. Our paper stresses the importance of well-connected diasporas for knowledge generation and transfer: a subject which warrants further attention.

Conclusion

This paper examined the international collaboration activities of Russian SMEs as an internationalization strategy. Contrary to often made claims, none of the companies we studied started with a locally produced asset. Instead, their very existence is owed to international collaboration, which enabled the asset to be created. Through collaboration with other institutions, the Russian partners not only accessed new knowledge but also opened access to novel markets. All these difficulties were successfully circumvented through collaboration with their German partners. Beyond that, partner institutions pave the way to a whole new network accessible to the Russian partners including distributors, potential client organizations, as well as funding institutions and the wider innovation ecosystem.

We demonstrated the importance of collaboration for Russian SMEs as an internationalization strategy. Although collaboration as a strategy in innovation management is actively discussed (see for example the debate on open innovation), collaboration as an internationalization strategy has received somewhat less attention. Here, more insights from other emerging markets could be helpful.

In addition, further research should translate the findings on collaboration into policy advice in both more developed and emerging economies. For policymakers, the born-global strategy should be understood as a very valuable source of knowledge transfer. These internationally active teams are creating state-of-the-art technologies which potentially have immense value for economic development. For emerging markets in particular, the knowledge and the technologies to which these entrepreneurs get exposure provide very valuable lessons—a vital prerequisite to commercialize their own products on global markets. These born-globals should become better connected with existing value chains to assure a more effective distribution of knowledge and higher levels of integration with other companies. Finally, our study focused on born-globals from Russia partnering with Germany. It would be fruitful to study such efforts with other countries that have a strong Russian diaspora, such as Israel and the USA. It would be interesting to see the extent to which ‘soft’ factors like cultural proximity play a role in born-globals’ success.

Compliance with ethical standards The financial support from the Government of the Russian Federation within the framework of the Basic Research Program at the National Research University Higher School of Economics and within the framework of implementation of the 5–100 Programme Roadmap of the National Research University Higher School of Economics is acknowledged. The authors did not have any conflict of interest. We have received informed consent from all interviewees. Also, no humans or animals were hurt when conducting the research.

References

- Al-Aali A, Teece DJ (2014) International entrepreneurship and the theory of the (long-lived) international firm: a capabilities perspective. *Enterp Theory Pract* 38:95–116
- Amal M, Freitag Filho AR (2010) Internationalization of small-and medium-sized enterprises: a multi case study. *Eur Bus Rev* 22(6):608–623

- Autio E (2005) Creative tension: the significance of Ben Oviatt's and Patricia McDougall's article "toward a theory of international new ventures". *J Int Bus Stud* 36:9–19
- Autio E, George G, Alexy O (2011) International entrepreneurship and capability development—qualitative evidence and future research directions. *Enterp Theory Pract* 35(1):11–37
- Bruton GD, Ahlstrom D, Obloj K (2008) Entrepreneurship in emerging economies: where are we today and where should the research go in the future. *Enterp Theory Pract* 32(1):1–14
- Bucar B, Glas M, & Hisrich RD (2003) Ethics and entrepreneurs: an international comparative
- Cantwell J, Mudambi R (2005) MNE competence-creating subsidiary mandates. *Strateg Manag J* 26:1109–1128
- Chetty S, Campbell-Hunt C (2004) A strategic approach to internationalization: a traditional versus a "born-global" approach. *J Int Mark* 12:57–81
- Coviello NE (2006) The network dynamics of international new ventures. *J Int Bus Stud* 37(5):713–731
- Coviello NE, McAuley A (1999) Internationalization and the smaller firm: a review of contemporary empirical research. *Manag Int Rev* 39:223–256
- Coviello NE, Munro HJ (1995) Growing the entrepreneurial firm: networking for international market development. *Eur J Mark* 29(7):49–61
- Covin JG, Slevin DP (1991) A conceptual model of entrepreneurship as firm behavior. *Enterp Theory Pract* 17:7–25
- Cuervo-Cazurra A, Genc M (2008) Transforming disadvantages into advantages: developing-country MNEs in the least developed countries. *J Int Bus Stud* 39(6):957–979
- Cumming DJ, Johan SA, Zhang M (2014) The impact of entrepreneurship: comparing international datasets. *Corp Gov: Int Rev* 22:162–178
- Danis WM, Shipilov AV (2002) A comparison of entrepreneurship development in two post-communist countries: the cases of Hungary and Ukraine. *J Dev Entrep* 7(1):67–94
- Elango B, Pattnaik C (2007) Building capabilities for international operations through networks: a study of Indian firms. *J Int Bus Stud* 38(4):541–555
- Ellis P (2000) Social ties and foreign market entry. *J Int Bus Stud* 31:443–469
- Ellis P, Pecotich A (2001) Social factors influencing export initiation in small and medium-sized enterprises. *J Mark Res* 38(1):119–130
- Enikolopov R, Stepanov S (2013) Corporate Governance in Russia, in: Alexeev, M., Weber, S. (Eds.), *The Oxford Handbook of the Russian Economy*. OUP USA Oxford Handbooks in Economics, pp. 242–220
- Evers N (2010) Factors influencing the internationalization of new ventures in the Irish aquaculture industry: an exploratory study. *J Int Entrep* 8:392–416
- Fan T, Phan P (2007) International new ventures: revisiting the influences behind the "born global" firm. *J Int Bus Stud* 38:1113–1131
- Freeman S, Edwards R, Schroder B (2006) How smaller born-global firms use networks and alliances to overcome constraints to rapid internationalization. *J Int Mark* 14:33–63
- Gabrielsson M & Kirpalani VH (Eds.) (2012) *Handbook of research on born globals*. Edward Elgar Publishing
- Gershman M, Kuznetsova T (2012) Osobennosti uchastiya malykh innovatsionnykh firm v mezhdunarodnoi nauchno-tehnicheskoi kooperatsii: opyt rossiisko-germanskikh kontaktov [Specificities of Involving Small Enterprises into International S&T Co-operation: Evidence from the Linkages between Russia and Germany]. *Foresight-Russia* 6:51–61
- Gokhberg L, Kuznetsova T (2011) S&T and innovation in Russia: key challenges of the post-crisis period. *J East–West Business* 17:73–89
- Gulati R, Nohria N, Zaheer A (2000) Guest editors' introduction to the special issue: strategic networks. *Strateg Manag J* 21(3):199–201
- Hagen B, & Zucchella A (2013) Born global or born to run? The long-term growth of born global firms. *Proceedings of the 55th Annual Meeting of the Academy of International Business, Istanbul, Turkey, July 3–6*.
- Harris S, Wheeler C (2005) Entrepreneurs' relationships for internationalization: functions, origins and strategies. *Int Bus Rev* 14(2):187–207
- Hitt MA, Dacin MT, Levitas E, Arregle J-L, Borza A (2000) Partner selection in emerging and developed market contexts: resource-based and organizational learning perspectives. *Acad Manag J* 43(3):449–467
- Jones MV, Coviello NE (2005) Conceptualising an entrepreneurial process of behaviour in time. *J Int Bus Stud* 36:284–303
- Jones MV, Coviello NE, Tang YK (2011) International entrepreneurship research (1989–2009): a domain ontology and thematic analysis. *J Bus Ventur* 26(6):632–659

- Kiss AN, Danis WM, Cavusgil ST (2012) International entrepreneurship research in emerging economies: a critical review and research agenda. *J Bus Ventur* 27(2):266–290
- Knight G, Cavusgil S (1996) The born-global firm: a challenge to traditional internationalization theory. *Adv Int Mark* 8:11–26
- Knight G, Cavusgil S (2004) Innovation, organizational capabilities, and the born global firm. *J Int Bus Stud* 35:124–141
- Kontinen T, Ojala A (2011) Network ties in the international opportunity recognition of family SMEs. *Int Bus Rev* 20(4):440–453
- Larson A, Starr JA (1993) A network model of organization formation. *Enterp Theory Pract* 17:5
- Leonidou LC & Samiee S (2012) Born global or simply rapidly internationalizing? Review, critique, and future prospects. *Handbook of Research on Born Globals*, 16–24
- Lumpkin GTV, Dess G (1996) Clarifying the entrepreneurial orientation construct and linking it to performance. *Acad Manag Rev* 21(1):135–172
- Luo Y, Tung RL (2007) International expansion of emerging market enterprises: a springboard perspective. *J Int Bus Stud* 38:481–498
- Luostarinen R, Gabrielson M (2006) Globalization and marketing strategies of born globals in SMOPECS. *Thunderbird Int Bus Rev* 48:773–801
- Madsen TK, Servais P (1997) The internationalization of born globals: an evolutionary process? *Int Bus Rev* 6(6):561–583
- Manev IM, Manolova TS (2010) Entrepreneurship in transitional economies: review and integration of two decades of research. *J Dev Entrep* 15(1):69–99
- Manolova TS, Eunni RV, Gyoshev BS (2008) Institutional environments for entrepreneurship: evidence from emerging economies in Eastern Europe. *Enterp Theory Pract* 32(1):203–218
- McCarthy D, Puffer S, Naumov A (1997) Partnering with Russia's new entrepreneurs: Software tsarina olga kirova. *Eur Manag J* 15(6):648–657
- McDougall PP, Oviatt BM (1996) New venture inter-nationalization, strategic change, and performance: a follow-up study. *J Bus Ventur* 11:23–40
- McDougall PP, Oviatt BM (2000) International entrepreneurship: the intersection of two research paths. *Acad Manag J* 43(5):902–906
- Musteen T, Francis J, Datta DK (2010) The influence of international networks on internationalization speed and performance: a study of Czech SMEs. *J World Bus* 45(3):197–205
- Ojala A, Tyrväinen P (2009) Impact of psychic distance to the internationalization behavior of knowledge-intensive SMEs. *Eur Bus Rev* 21(3):263–277
- Oviatt BM, McDougall P (1994) Toward a theory of international new ventures. *J Int Bus Stud* 25:45–64
- Oviatt BM, McDougall P (2005) Defining international entrepreneurship and modeling the speed of internationalization. *Enterp Theory Pract* 9:537–553
- Peng MW, Heath PS (1996) The growth of the firm in planned economies in transition: institutions, organizations, and strategic choice. *Acad Manag Rev* 21(2):492–528
- Pisano GP, Shan W, & Teece, DJ (1988) *Joint ventures and collaboration in the biotechnology industry*. Ballinger Publishing Company
- Polischuk L (2013) Institutional performance. In: Alexeev M, Weber S (eds) *The Oxford handbook of the Russian economy*. OUP USA Oxford Handbooks in, Economics, pp 189–220
- Prange C, Verdier S (2011) Dynamic capabilities, internationalization processes and performance. *J World Bus* 46:126–133
- Preece SB, Miles G, Baetz MC (1999) Explaining the international intensity and global diversity of early-stage technology-based firms. *J Bus Ventur* 14:259–281
- Puffer SM, McCarthy DJ, Boisot M (2010) Entrepreneurship in Russia and China: the impact of formal institutional voids. *Enterp Theory Pract* 34(3):441–467
- Rennie M (1993) Born-global. *McKinsey Quarterly* 4:45–52
- Rialp A, Rialp J, Knight GA (2005) The phenomenon of early internationalizing firms: what do we know after a decade (1993–2003) of scientific inquiry? *Int Bus Rev* 14:147–166
- Rugman AM, Verbeke A (2001) Subsidiary-specific advantages in multinational enterprises. *Strateg Manag J* 22:237–250
- Salmela, E., & Lukka, A., 2004. Value added logistics in supply and demand chains SMILE. Part 1: Ebusiness between global company and its local SME supplier network, Research Report 153, ISBN 951-764-925-8.
- Sandberg S (2014) Experiential knowledge antecedents of the SME network node configuration in emerging market business networks. *Int Bus Rev* 23(1):20–29

- Sapienza HJ, Autio E, George G, Zahra SA (2006) A capabilities perspective on the effects of early internationalization on firm survival and growth. *Acad Manag Rev* 31:914–933
- Seawright KW, Mitchell RK, Smith JB (2008) Comparative entrepreneurial cognitions and lagging Russian new venture formation: a tale of two countries. *J Small Bus Manag* 46(4):512–535
- Shane S (2000) Prior knowledge and the discovery of entrepreneurial opportunities. *Organ Sci* 11(4):448–469
- Sharma DD, Blomstermo A (2003) The internationalization process of born globals: a network view. *Int Bus Rev* 12(6):739–753
- Shenkar O, Von Glinow MA (1994) Paradoxes of organizational theory and research: using the case of China to illustrate national contingency. *Manag Sci* 40(1):56–71
- Teece DJ (1986) Profiting from technological innovation: implications for integration, collaboration, licensing and public policy. *Res Policy* 15:285–305
- Teece DJ (2006) Reflections on “profiting from innovation”. *Res Policy* 35:1131–1146
- Thurner TW, Gershman M (2014) Catching the runaway train innovation management in Russian railways. *J Technol Manag Innov* 9(3):158–168
- Thurner T, Proskuryakova LN (2014) Out of the cold—the rising importance of environmental management in the corporate governance of Russian oil and gas producers. *Bus Strateg Environ* 23(5):318–332
- Thurner TW & Zaichenko S (2014) Knowledge inputs to science- and development-based regimes: evidence from the behavior of Russian RTOs. *Int J Innov Manag*
- Tominc P, Rebernik M (2007) Growth aspirations and cultural support for entrepreneurship: a comparison of post-socialist countries. *Small Bus Econ* 28(2–3):239–255
- Tovstiga G, Odenthal S, Popova VA, Efimov IP, Moskalev S, Bortnik I (2005) Russian Small Innovative Enterprises (SIEs), intellectual capital and competitiveness: knowledge-based SIEs in a transitional economy. Part I: conceptual framework and preliminary analysis of field research. *Int J Learn Intellect Cap* 2(2):154–179
- Volchek D, Henttonen K, Edelmann J (2013) Exploring the role of a country's institutional environment in internationalization: strategic responses of SMEs in Russia. *J East–west Bus* 19(4):317–350
- Weerawardena J, Mort GS, Liesch PW, Knight G (2007) Conceptualizing accelerated internationalization in the born global firm: a dynamic capabilities perspective. *J World Bus* 42:294–306
- Welch LS, Luostarinen R (1988) Internationalization: evolution of a concept. *J Gen Manag* 14:34–55
- Wolff AJ, Pett TL (2000) Internationalization of small firms: an examination of export competitive patterns, firm size, and export performance. *J Small Bus Manag* 38:34–47
- Yakovlev A (2014) Russian modernization: between the need for new players and the fear of losing control of rent sources. *J Eurasian Stud* 5:10–20
- Yamakawa Y, Peng M, Deeds D (2008) What drives new ventures to internationalize from emerging to developed economies? *Enterp Theory Pract* 32(1):59–82
- Zahra SA (2014) Public and corporate governance and young global entrepreneurial firms. *Corp Gov: Int Rev* 22(2):77–83
- Zahra SA, George G (2002) International entrepreneurship: the current status of the field and future research agenda. In: Hitt MA, Ireland RD, Camp SM, Sexton DL (eds) *Strategic Entrepreneurship*. Blackwell, Malden, MA
- Zaichenko S, Kuznetsova T, Roud V (2014) Features of interaction between Russian enterprises and research organisations in the field of innovation. *Foresight-Russia* 8(1):6–22
- Zashev P, Dezhina I (2010) Internationalization of Russian small innovation companies: motives and limitations. *Electron Publ Pan-Eur Inst* 8:2010
- Zettinig P, Benson-Rea M (2008) What becomes of international new ventures? A coevolutionary approach. *Eur Manag J* 26:354–365