

## **Are Exporters Really More Open?**

### **Role of Collaboration with Stakeholders in New Product Development in Russian Companies**

#### **ABSTRACT**

*The paper addresses to the understudied research area of interconnection of internationalization and innovation. Authors aim to look at the level of exports and level of openness of Russian firms when cooperating with external partners within the new product development processes (NPD). The main focus is made on the differences in collaboration with external partners between the exporting and non-exporting firms. The study is based on a survey on 223 Russian companies from various industries. The main research questions, addressed in the study, are directed at the interaction with key stakeholders within the NPD processes, comparing exporting and non-exporting firms, and comprise the following aspects: (1) are there any patterns in the Russia firms' behavior, describing their attitude to being open in interaction with stakeholders when developing new products; and (2) are these patterns related to the factor of internationalization? The findings indicate existing differences between the exporting and non-exporting firms in building the networks of stakeholders within the NPD activities. At the same time almost no significant differences between the exporting and non-exporting firms in assessing the involvement success were identified, providing counterintuitive results on the study. The results are explained through the various strategies applied by exporting and non-exporting firms in new product development.*

**Keywords:** *internationalization, new product development, collaboration, stakeholders, export, Russia*

#### **INTRODUCTION**

The paper aims to look at the level of openness of Russian firms when cooperating with external partners within the new product development processes (NPD). The main focus is made on the differences in collaboration with external partners between the exporting and non-exporting firms.

In general, there are not many studies, investigating the new product development processes in Russian firms. Most of existing research papers on innovations in Russia focus merely on the policy level, aiming to define the factors, intervening successful innovations (Torkkeli et als,

2009, OECD studies). This study, on the contrary, analyzes the firm level and interaction with the partners in the firm environment.

The main research questions, addressed in the study, are directed at the interaction with key stakeholders within the NPD processes, comparing exporting and non-exporting firms, and comprise the following aspects: (1) are there any patterns in the Russia firms' behavior, describing their attitude to being open in interaction with stakeholders when developing new products; and (2) are these patterns related to the factor of internationalization? The main assumption behind these questions is that those firms, having international experience, will tend to have more open strategy due to both higher diversity of contacts and higher intensity.

### ***LITERATURE REVIEW***

The current economic situation is tough for all range of companies, business faces financial problems, competition is tight, knowledge has spread widely and, R&D investments are huge. Rapid technology progress and advances in communication tools have facilitated existing types of interactions between producers and consumers of technologies on all business hierarchy levels and created new ways of interactions. This led to fundamental changes in the ways companies interact both within and across firm, industry and country boundaries (Mendelson, 2000, Geoffrion and Krishnan, 2003).

The existence of strong relationship between internationalisation and innovation is obvious for technology oriented companies, when international technology transfer is a form of export per se (Robinson, 1988). The understanding of innovation has expanded from pure product and process innovations to organizational and even marketing innovations (Oslo manual, 2007). However, the globalization processes influence companies more often enter foreign markets and acquire specific knowledge enabling them to implement more technology innovations.

There are many factors influencing the dual relationship between innovation and internationalisation, including size of the company, innovativeness and export (Wakelin, 1998), influence of a firm's technological capacity on both its decision to export and its export intensity (Lopez Rodriguez & Garcia Rodriguez, 2005). Many factors on the firm-level allow classifying them as domestic, exporting, controlling non-manufacturing activities abroad and manufacturing abroad (Castellani, et al., 2007), or exporter vs. non-exporters (Filipescu, 2007; Wakelin, 1998), non-exporting, low exporting, high exporting (Lachenmaier & Wossmann, 2006).

Strategic issues of involving stakeholders were assumed to help marketers to broaden their view (Reidenbach and McClung, 1999). The relationship frameworks developed during the 1990-s just confirm this perspective (Kotler, 1992; Morgan and Hunt, 1994; Gummesson, 1994, Christopher et al, 1991). This wide focus on market relationships included not only customer relationship, but also a number of key relationships/partners/markets, crucial for business survival and integration within the value chain. This development of interactive approach up to formulation of relationship strategy lead to creation of value constellation concept (going away from the linear value chain approach) (Normann and Ramirez, 1994).

The role of firm's partners and stakeholders as a source of knowledge for enhancing innovativeness has been stated in the research literature (Elias, Cavana and Jackson, 2002; Sheng and Rui, 2006; Hart and Sharma, 2004). The technology cooperation with foreign partners covers not only "the acquisition of competencies for operating and maintaining, but also the acquisition of various combinations of design, engineering and project management skills" (Bell & Pavitt, 1993). Potential of stakeholders to enhance radical innovations can vary significantly and depend on multiple criteria. It can be implied that innovative potential of interaction with certain stakeholder groups can be governed by the same relational principles identified in the above mentioned classifications. Following this logic we can state that a number of approaches to

classification of existing and potential stakeholders are based on relational features of stakeholder interactions. Thus Mitchell et al (1997) develop a typology of stakeholders based on the number of attributes, including power (the extent a party has means to impose its will in a relationship), legitimacy (socially accepted and expected structures or behaviors), and urgency (time sensitivity or criticality of the stakeholder's claims). Friedman and Miles (2002) explore the implications of relationships between stakeholders and organizations by analyzing compatibility of interests and connections as additional attributes of examining the configuration of these relationships. Savage et al. (1991) classify stakeholders according to potential for threat and potential for cooperation. These approaches focus on long-term potential of interaction and necessity not only to assess, but also build and maintain configuration of stakeholder relationships in order to fulfill firm's strategic potential.

Addressing new product development as one of the main outcomes of stakeholders involvement, it is required to mention the dichotomy conceptualized by Berthon, Hulbert and Pitt (1999) as "to serve or to create". This dichotomy leads to assumption that market-driven and market-oriented behavior ("to serve") is often contradicting with proposing radical innovations ("to create"). The role of stakeholders in the first case can be seen as the role of passive recipients of services and sources of information on improvements of existing goods/services and their assessment, while the latter case implies active involvement of stakeholders in R&D activities and firm's readiness to take risks to develop radically new products, sometimes not expected by the market and thus being risky to promote and distribute.

The research question thus is not only in the fact of stakeholder involvement, but also the structure of involved stakeholder groups and their potential to contribute to the firm's aims. Developing this proposition it is possible to state that these contributions will be different, depending on the aims of the firm, for example, modifying an existing product to serve existing

market or offering radical product innovation. Indeed, Srivatas and Dwyer (2000) argue that the role of stakeholders' involvement depends strongly on the type of innovation and that there is a difference in cooperation with external partners in case of radical and incremental innovation. It sets more pressure on existing network of partnerships when a radical innovation is being created. While incremental innovations often need just existing competences, radical ones force changes in multiple aspects of firm's operations and collaboration with partners outside (Nord and Tucker, 1987).

### ***RESEARCH CONTEXT AND SPECIFICS OF TRANSITIONAL ECONOMIES***

There is a number of features in transition economies, determining potential differences in orientation stakeholder relationship strategies, among them higher instability of relationships in the market, lack of information about potential partners due to short-term history of market economy, low information disclosure readiness, higher readiness for opportunistic behavior and higher time pressure (Ford et al, 2006, Johanson 2007, Halinen, Salmi, 1996).

In case of short-term relationship history in transition markets more market actors may have ineffective relationship structure due to factors on the market, industry or firm level. Due to various factors firms may be less capable to identify, select and cooperate with most appropriate partners. This should lead to lower performance outcomes and lower perceived relationship performance.

Russia as an economy in transition provides a unique opportunity to investigate changing and adapting network structures, stakeholder interaction and relationship constellations. The characteristics of business relationships in the Russian economy have been investigated since the early 1990s, i.e. since the collapse of the planned economy and the dissolution of existing economic ties between companies and whole value-creating systems. The development of newly formed business relationships was the subject of cultural analyses and attempts to find a "specific

Russian way” to relationship building (e.g. Davis, Patterson, and Grazin, 1994). Some studies exist which analyze the nature of these new relationships, building on frameworks within a market economy (e.g. Johanson, 2007; Tretyak and Sheresheva, 2005). As Johanson (2007) points out, such new relationship building required significant time and resource investments and was based on the development of decentralized and mutual planning capabilities by individual firms.

Dyker (2004) studies the process of development and dissemination of technology in Russia through the cooperation between Russian organizations and foreign firms. It is important to understand, that FDI in Russia facilitates the technology transfer from abroad. The interesting point is that success of privatization in Russia can be estimated by “the diversity of enterprise forms, sizes, and strategies which is essential for knowledge diffusion and generation”.

Co-operation and licensing deals with partners from developed economies is one way to speed up the innovation development process in Russia. But for Russian companies and research institutes it is difficult to find partners when Russian scientists are not educated to prepare business plans or create new ventures. Venture capital industry in Russia is mainly foreign-owned, but on the other hand, foreign direct investments in R&D are quite modest. Probably the highest foreign R&D investment occurs in the ICT sector. At least Sun Microsystems, Motorola, Microsoft and Intel have R&D or dedicated development centres, with more than 200 workers, in St. Petersburg or Moscow (OECD, 2005). Despite the substantial science base and education focused on technology and sciences, innovation activity has been modest in Russia: only about 1.4 percent of GDP is spend on R&D. Approximately 60 percent of R&D is publicly financed and business sector is minor actor in R&D. Only about 10 percent of industrial enterprises reported technological innovations in 2007, while the average in the European Union is 50 percent. The amount of R&D personnel in Russia is relatively high: about 1.3 percent of total labour force,

compared with less than 2 present in OECD countries. In theory, this should positively influence level of innovation capacity of companies in Russia, but only half of R&D personnel work as researchers, which means that the share of support personnel is extremely high. Russia is a country with rich natural resources, with an educated labour force, and a history of major scientific breakthrough. Currently Russia is a resource-dependent economy, exporting mainly natural resources like oil, gas and metals, and depending on commodity exports for its growth. According to World Bank estimates, the gas and oil sector contributed approximately 20 % of the Russian Gross Domestic Product (GDP) and more than 60 % of exports in 2006. The prices for oil and other natural resources have dropped dramatically, what put the whole economy on the risk of lack finances. If the Russian Federation wants to achieve sustainable growth in future years, it has to move away from a resource-based economy. The Russian economy has to diversify, embrace innovation, and shift to a knowledge-based economy.

### ***RESEARCH DESIGN***

Empirical data for the study was collected in the late 2007 and resulted in a sample of 223 Russian firms from various industries. The study was designed on a basis of face-to-face structured interviews with key respondents representing marketing department or top management of the firm. The sample was stratified with regard to the following criteria – region, industry, and annual revenue of the company, plus the availability of the key respondent in each firm. The respondents were selected to be qualified to specify better the firm's interaction with key stakeholders both inside and outside the firm, and first of all customers and suppliers interaction in relation to innovative processes inside the firm. The data was collected in personal interviews with key respondents with an average duration of an interview of 1 hour.

The sample is cross-sectional and includes a number of key industries, the key industries among them are presented by machinery – 19,4%, food industry – 13,1%, construction materials –

11,7%, light industry – 8,6%, woodworking industry – 6,8%, ICT – 6,8%. The age of the company is varying from 3 to 143 years with an average of 29 years. 35,4% firms in the sample – public companies, 59% - limited companies, 4% - state companies, 1,9% - other. The firms also vary in number of employees: less than 50 employees – 12,3%, 50-100 employees – 14,6%, 100-500 employees – 34,7%, 500-1000 employees – 17,4%, more than 1000 employees – 21%.

The relationship between products and services in firms' portfolio is varying from 0% to 100% with an average of 73% products and 27% services. The relationship between serving industrial and consumer markets is also varying from 0% to 100% and an average of 56% firms serving industrial markets and 44% consumer markets.

Among the firms in the sample, 64% have proved to be non-exporters and 36% have various shares of export sales: 12,3% - up to 5% of export sales, 18,5% - 6 to 20% of export sales, and 5,2% - more than 20% of export sales. This data allows comparing the exporters and non-exporters in their attitude towards cooperation with the external stakeholders. The share of exporters (36%) is appropriate, considering a rather low share of exporters in the Russian economy.

Finally, out of 223 firms in the sample, 1,8% assess their economic situation as “near bankruptcy”, 4,9% as “bad”, 29,1% - as “satisfactory”, 46,6% as “good” and only 10,3% as “excellent”.

## ***MEASUREMENT***

Describing existing patterns of stakeholder interaction of Russian companies a number of variables has been used. The key respondents had to identify involvement of certain internal or external stakeholder groups in new product development and assess perceived contribution of their involvement.

### *Involvement of internal/external stakeholders*



A dichotomous question was used to measure whether internal/external stakeholders are involved in R&D process. The questions on internal stakeholders include top-management, production, R&D department, marketing and sales. Involvement of external involvement is measured on ten stakeholder groups: suppliers in Russia; suppliers abroad; customers in Russia; customers abroad; intermediaries; shareholders; competitors; consultants; research organizations and partners in joint ventures.

#### *Success of internal/external stakeholder interaction in relation to product innovation*

Contribution of the internal and external stakeholder groups in new product development was assessed as perceived success of involving particular stakeholder group in new product development. A 5-point Likert scale was applied with the answer anchors “involvement not successful at all”; “involvement highly successful”.

#### *Type of product innovation*

To test the role of radical and incremental innovation in new product development additional measures were provided, including a range of potential options: modification of existing products, development of a product new to the firm, new to the Russian market and new to the industry in the whole. This measure was considered as an ordinal scale, ranging from least radical product innovation (modification of existing product) to the most radical (introduction of a product new to the industry).

#### *Export*

Exporters were identified by a dummy variable, indicating whether the firm is operating in the international market. A further assessment of the share of the export sales was conducted.

### ***KEY FINDINGS***

Our key research question has been connected with the differences among the exporting and non-exporting firms in the attitude towards cooperation with the external stakeholders within the new product development.

The first findings have indicated that 88,8% of firms in the sample have reported that they have introduced new or modified products and services to the market. 86,7% among the non-exporters have introduced new products, while this rate among the exporters was higher – 94,6 %. The type of new product in the study was differentiated among the modified existing product, new for the firm, new for Russian market or new for the industry product. Thus the first results indicate that in terms of the type of the new product developed exporting firms outperform the non-exporting firms, since a higher share of new for Russian market and new for the industry products was introduced by the exporters in the sample.

**Table 1 Types of new products by exporters and non-exporters, % of firms**

Type of NPD	Non-exporters	Exporters
Modified product	15,0%	11,6%
New for the firm	48,0%	32,6%
New for Russian market	21,0%	23,3%
New for the industry	16,0%	32,6%
Total	100%	100%

The key question now is whether there is a pattern of external partners' involvement, contributing to these results. The results of empirical study provide a picture of current approach to stakeholder involvement in R&D processes in Russian companies (see Table 2).

**Table 2 Descriptive statistics: internal and external stakeholders' involvement**

Involvement of...		Involvement of stakeholders, %			<i>Success of involvement, (1; 5)</i>		
		All sample % firms	Exporters % firms	Non-exporters % firms	All sample Mean	Exporters Mean	Non-exporters Mean
1	Customers in Russia	47,1	67,4	32,8	3,29	3,22	3,37
2	Suppliers in Russia	35,9	54,3	22,9	3,44	3,32	3,63
3	Consultants	34,5	48,9	24,4	3,33	3,15	3,58
4	Shareholders*	32,7	48,9	21,4	3,05	2,77	3,51

5	Intermediaries	30,5	51,1	16,0	3,12	3,12	3,10
6	External research organizations	29,1	50,0	14,5	3,28	3,28	3,26
7	Competitors*	28,8	44,6	17,6	3,19	2,80	3,87
8	Partners in JV	26,9	50,0	10,7	3,10	3,02	3,36
9	Suppliers abroad	24,2	45,7	9,2	3,30	3,14	3,83
10	Customers abroad	23,3	56,5	n.a.	2,71	2,71	n.a.

Two key variables of analysis are stakeholders' participation in NPD processes and success of their involvement. As expected, the highest levels of involvement have customers in Russia, suppliers in Russia, consultants and shareholders. The least involved external stakeholders include customers abroad, partners in joint ventures and suppliers abroad. At the same time, the key factor we analyzed – differences between the exporting and non-exporting companies – has provided interesting results. Thus in fact, that exporting companies have reported a much more intense involvement of external stakeholders (share of the firms above the share on the sample). Interestingly, this affects not only partners abroad, but also partners inside the country, including customers and suppliers.

Another result is the perceived success of involvement, and the results we received were not supporting the assumptions. Thus, despite higher openness, the exporting firms do not assess their interaction with the stakeholders as more successful as the non-exporting firms. Our findings indicate that these are non-exporting firms, assessing the stakeholders' involvement higher. Statistically significant differences were proved though just in case of shareholders and competitors involvement. This result could be explained by various criteria used for assessment of involvement success by exporting and non-exporting firms. Thus following the data in the table 2, we can conclude that exporting firms pay more attention to radical new product innovations, being new for the Russian market and the industry. We can assume that involvement of external stakeholders in this case creates different expectations by the firms, following this model of new product development.

## ***CONCLUSION***

Understanding the nature of innovativeness in the firms in transition economies requires considering a number of factors both on the firm, market and macro level. As discussed above, multiple inconsistencies in transition economies development could be compensated by the firms' thoughtful strategy, aimed at leveraging existing resources in interfirm collaboration and interfunctional alignment within the firm. Even more important are these factors in case when the firm starts competing in international market. The study has provided a number of key findings: firstly, exporting firms are more introducing more radical product innovations; secondly, those firms do also develop a more intense network with external partners both inside and outside the country to involve them in the product development; and, finally, these firms do seem to apply more strict criteria to assess the NPD cooperation, since the assessment of the stakeholders involvement success is lower by the firms, involved in the exporting activities. The latter result is the more challenging one, and could be explained by the differences in priorities and the level of requirements toward the cooperation with external stakeholders within the NPD process. These results certainly require further investigation, clarifying the drivers of collaboration assessment and the reasons, making the exporting firms enlarge their network of partnerships.

## ***REFERENCES***

- Bell, R. M. and Pavitt, K. (1993). Technological Accumulation and Industrial Growth: contrasts between Developed and Developing Countries, *Industrial and Corporate Change*, Vol. 2, No. 2.
- Berthon, P., Hulbert, J.M., Pitt, L.F. (1999) 'To serve or to create', *California Management Review*, Vol. 42, pp.37-58.
- Castellani, D., Zanfei, A. (2007). Internationalisation, innovation and productivity: how do firms differ in Italy? *The World Economy*, Special Issue on "Exports and Growth"

- Christopher, M., Payen, A., and Ballantyne, D. (1991). *Relationship Marketing: Bringing Quality, Customer Service and Marketing Together*. Oxford: Betterworth-Heineman.
- Davis, J. H., Patterson, J. D. and Grazin, I. (1996) 'The Collapse and Remergence of Networks within and between Republics of the Former Soviet Union', *International Business Review*, Vol 5, No 1, pp. 1-21.
- Dyker, D. (2006). Closing the EU East-West Productivity Gap, *Imperial College Press*
- Faber J., Hesen A.B. (2004). Innovation capabilities of European nations: Cross-sectional analysis of patents and sales of product innovations, *Research Policy*, 33, pp.193-207
- Elias, A.A., Cavana, Jackson, R.Y., and Jackson, L.S. (2002), 'Stakeholders analysis for R&D project management', *R&D Management*, Vol.3, no 4, pp. 301-310.
- Filipescu, D. (2007). Innovation and Internationalisation. A focus on the Spanish exporting firms, Research work, Doctoral programme: Creation, strategy and management of the firm, Universitat Autònoma de Barcelona, Business Economics Department;
- Ford, D., Gadde, L.-E., Håkansson, H., Snehota, I. (2006) *The Business Marketing Course: Managing in Complex Networks*, 2nd ed., John Wiley & Sons, Chichester, 2006.
- Friedman, Andrew L.; Miles, Samantha (2002). 'Developing Stakeholder Theory', *Journal of Management Studies*, Vol. 39 (1), pp. 1-21
- Geoffrion and Krishnan, 2003
- Gummesson, E. (1994), 'Service Management: An Evaluation and the Future', *International Journal of Service Industry Management*, Vol.5, No. 1.
- Halinen, A. and Salmi, A. (2001) 'Managing the informal side of business interaction: Personal contacts in the critical phases of business relationships', *Competitive paper presented at the 17th Annual IMP Conference, Interactions, Relationships and Networks: Strategic Dimensions*, hosted by Norwegian School of Management BI, 9th -11th September 2001, Oslo, Norway. CD-rom proceedings.
- Hart, S.L. and Sharma, S. (2004) 'Engaging fringe stakeholders for competitive imagination', *Academy of Management Executive*, Vol. 18 (1), pp. 7-18.
- Johanson, M. (2007) 'Networks in Transition', *Proceedings of the 23th IMP Conference*, Manchester Business School, UK.
- Kotler, P. (1992) 'Total Marketing', *Business Week Executive Brief*, p. 2.
- Lachenmaier, Stefan, Wossmann, Ludger, (2006). Does innovation cause exports? Evidence from exogenous innovation impulses and obstacles using German micro data. *Oxford Economic Papers*, 58, pp.317-350. Oxford University press.
- Lopez Rodriguez, J., Garcia Rodriguez, R. (2005), Technology and export behaviour: A resource-based view approach. *Internaitonal Business review* 14 , pp.539-557.
- Mendelson, 2000

- Mitchell, R.K., Agle, B.R., and Wood, D.J. (1997), 'Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts', *Academy of Management Review*, Vol. 22, No.4, pp. 853 – 886.
- Morgan R., Hunt S. (1994) 'The commitment-trust theory of relationship marketing', *Journal of Marketing*, 58 (3): 20–38.
- Norman, R., Ramirez, R. (1994), *Designing Interactive Strategy: From Value Chain to Value Constellation*, John Wiley & Sons, New York, NY.
- Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition, 2007.
- Robinson, R. (1988). The International Transfer of Technology: Theory, Issues, and practice, Ballinger Publishing Company, Cambridge, Massachusetts
- Reidenbach, R.E. and McClung, G.W. (1999) 'Managing Stakeholder Loyalty', *Marketing Health Services*, Vol. 19, No.1, pp. 20-29.
- Savage, G.T., Nix, T.W., Whitehead, C.J. and Blair, J.D. (1991) 'Strategies for Assessing and Managing Organizational Stakeholders', *Academy of Management Executive*, Vol. 5, No.2, pp. 61-75.
- Sheng and Rui (2006) 'The influence of stakeholders on technology innovation: a case study from China', *Proceedings of international conference Management of Innovation and Technology*, 2006 IEEE.
- Tretyak, O. and Sheresheva, M. (2005) 'Russian Retail Chains vs. Foreign Retailers: Changes within the Industry and Supplier-Retailer Relationships', *20th IMP Conference proceedings, Copenhagen*.
- Wakelin, K. (1998). Innovation and export behaviour at the firm level. *Research Policy* 26 pp.829-841;