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Igor Gurkov, Sergey Filippov

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Igor Gurkov[1]*, Sergey Filippov*[2]

INNOVATION MANAGEMENT IN RUSSIA'S FOREIGN MANUFACTURING SUBSIDIARIES: A PILOT EXPLORATION OF CREATION AND IMPLEMENTATION OF EFFECTIVE INNOVATION ROUTINES [3]

Subsidiaries of foreign multinational companies are essential part of the modern Russian economy. In many sectors, they enjoy dominant positions. Innovation is an important driver and determinant of this dominance. Yet, little research has been done on innovation strategies and innovation processes in foreign subsidiaries in Russia. The paper aims to fill this gap. On the basis of qualitative evidence, it explores the goals, patterns and challenges of innovation activities in Russian subsidiaries. Our findings suggest that that manufacturing subsidiaries have implemented numerous effective innovation routines that are an integral part of daily 'routine' management. This is driven by the two-faceted objective – to achieve global quality standards and low production costs.

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[1] D.Sc., National Research University Higher School of Economics (Moscow, Russia), Professor; E-mail: gurkov@hse.ru
[2] Ph.D., Delft University of Technology (Delft, The Netherlands), Assistant Professor; E-mail: S.Filippov@tudelft.nl

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Background

In 2010-2011, the Higher School of Economics conducted a research project on the innovation management practices in Russian industry. Empirical data was collected from over 300 senior managers of (domestic) Russian manufacturing firms. The obtained findings could be summarised as follows.

The respondents acknowledged the crucial role of innovation. Innovation was seen as a solution or even a panacea that could solve almost all organisational and managerial problems – increase profitability, improve reputation in the eyes of customers, suppliers and shareholders, achieve team cohesion and empowerment of employees [Gurkov and Morgunov, 2011].

While the rhetoric was positive, the reality turned out to be somewhat disappointing. Product and process innovations were pursued only by a minor part of the firms in our sample – form 15% to 25% depending on the industry. Moreover, it was found that even inside the firms regularly introducing innovations, this activity was organisationally separated from the key business processes. A vivid indication is wide use of sub-contractors to carry out innovation and R&D. In over half of the cases, key innovation processes – getting access to new technologies, purchasing and launching new equipment and even new product development – were implemented by independent contractors.

Statistical analysis has revealed that innovations were introduced only after firms had faced fast changes in basic production technologies and new product launches. In other words, innovation was not a planned activity, but rather an ad hoc response to external changes. It is interesting to note that executives within the same industries tended to have different perceptions about the company's environment – some firms noticed and recorded fast changes in technologies and products, while others didn't [Gurkov, 2013].

Having obtained these results, a question was raised whether the situation in the Russian economy in terms of innovative performance was indeed so dramatic. Or, certain segments in the Russian economy can be found, in which the majority of firms systematically conduct innovation. It means that their product and process innovations are incorporated in the process of "routine management" (regular business activity), and not done an ad hoc basis. Prior research has identified that Russian privately-owned medical equipment manufactures regularly engage in executing full-cycle innovation projects. However, these enterprises had a small share of the medical and pharmaceutical sector, and this sector itself is tiny in the Russian economy [Gurkov et al, 2011].

A more promising research direction is to examine the Russia-based manufacturing subsidiaries of foreign multinational companies. There is anecdotal evidence in a form of newspaper or magazine articles about these firms' systematic engagement in innovative activities. However, to our knowledge, no prior academic research has addressed this subject thoroughly. Therefore, the paper seeks to fill this gap.

Our aim is to provide insights and analysis of the business logic, formation of innovation processes, role of human capital, achievements and challenges of innovative performance of the Russian-based manufacturing subsidiaries of foreign multinational corporations. In order to understand innovative performance of these companies, we examine several aspects such as market positions, determinants of production process, HR management, and relations with the parent companies. Our intention is to provide a narrative of the present-day practices in the foreign manufacturing subsidiaries in Russia rather than position the findings in a theoretical debate.

Data and methodology

The focus of this paper lies specifically on subsidiaries fully embedded in activities and production process of their respective multinational companies. This production process would include a whole range of activities regarding asset management – strategic planning, coordination of corporate-wide production facilities, allocation of investments between their factories and other divisions, technological development (selection of new production sites, design of new facilities), putting new industrial facilities into operation, etc. This is in contrast with pure foreign ownership of particular factories or companies based in Russia, without any embeddedness to the organisational structure of the foreign owner ("portfolio ownership"). The logic is that if a Russian subsidiary, either acquired domestic firm or a greenfield, is fully embedded in the organisational structure of the respective multinational company, it learns and implements innovation practices from its parent company.

For our sample, we have selected only mature manufacturing subsidiaries, i.e. those set up over five years ago. Innovation is often tacit, embedded in organisational routines and processes, and we estimate the period of five years to be sufficient for formation of these

routines. Next, we excluded assembly manufacturers and extractive companies, where potential for product innovations would be limited.

Data collection included semi-structured interviews with general managers, communication with production, marketing and quality managers as well as other functional specialists responsible for product or process innovations. Most of the interviews were held on-site. Such meetings were usually preceded by a tour on the premises to gain visual understanding of the core production lines, R&D labs and so on. Next to the interviews, corporate reports and other documentation were collected and analysed. In certain cases, special reports on the key innovation projects implemented in the last 2-3 years and those planned to be executed in 2013-2015 were prepared for us.

Most executives in our sample notice positive trends in the development of their markets or sectors. Almost all executives have shown a broad understanding of the need for expansion of the product line (product innovation) and constant improvement of the key production technologies, including more environmentally-friendly ones (process innovation) as well as feasibility of doing so.

We have noted sectorial specifics of innovation process. In chemical and pharmaceutical sectors, innovation activity was limited to absorbing and implementing product formulae and detailed process charts from the foreign headquarters. In contrast, in food industry we have observed the development of brand new products and technologies for own production. In other words, we have found both “asset-exploiting” and “asset-seeking” [Dunning and Narula, 1995], or “home-base exploiting” and “home-base augmenting” [Kuemmerle, 1999] subsidiaries. They key point is that in all companies in the sample, the innovation activity has proven to be routine – an integral part of daily business management.

The role of innovation in the business strategy

The firm’s general objectives are formulated in its business strategy that serves as a guide to its innovation activity. The business strategy serves as a departure for analysis of any firm. In our interviews, we have established that the business objectives of the Russian manufacturing subsidiaries comply with the general logic of most global corporations in the world post-crisis economy. It can be stated with extreme simplicity – “bringing about the profitable growth”. In

the short term, it requires maintaining sales profitability based on the growth in sales volume; in the longer term, it demands new investments projects whose IRR exceeds its cost of capital.

Such simultaneous attainment of profitability and increase in sales volume implies maintaining or rise of marginal income [Gurkov, 2009a]. It can be relatively easily achieved in oligopoly markets. As for competitive markets, maintaining or increasing marginal income with the rise in sales can be only achieved in two ways.

The first option can be defined as the sequenced decrease in unit cost due to sales growth. In turn, it is possible either due to extremely effective "learning curve" (decrease in unit cost owing to experience in a specific area), or by introducing temporary excessive production capacities so that sales growth leads to the optimum capacity utilisation, and hence, to decrease in unit cost. The second option for maintaining or increasing marginal income is raising the margin, i.e. mark-up to production costs. Margin rise is possible with the company's advancement to the premium market segments where, as a rule, price elasticity of demand is lower and, consequently, pricing discretion is higher.

Therefore, we postulate that Russian subsidiaries deal with a double task. Firstly, they need to gain and maintain an overall market share that leads to oligopoly effects. Secondly, they need to establish presence or dominance in the premium market segments.

Our empirical data support this theoretical proposition. This indeed has been the strategy of many subsidiaries in various markets – to create oligopoly markets and control their premium segments. For example, three leading foreign corporations possess over 65% of the overall sales in Russia's beer, juice and tobacco markets. In the premium segment of these markets they control even 80% of overall sales. A similar situation can be observed in other markets. The processed cheese market is divided between France's Lactalis, Finland's Valio and Germany's Hochland. The German firm Knauf controls over 50% of gypsum and gypsum plasterboard production in Russia. The entire production of aluminium cans is divided among two firms – UK's Rexam and Poland's Can-Pack. Moreover, Rexam is the only company in Russia that produces both aluminium cans and lids for them. Rhodia, a part of Solvay Group, is the only manufacturer in Russia producing acetate tow – the material for manufacturing cigarette filters. Taken together its production Russia and its import, the company controls about half of the acetate tow's consumption in Russia.

At the same time, following predictions made already at the beginning of 2009 [Gurkov, 2009b], coping with the consequences of the 2008-2009 economic recession, foreign companies in Russia have managed not only to maintain but even further strengthen their positions in

certain markets. The strategy included intensive expansion of production in their own factories, and acquisition of both leading Russian national companies (Vimm-Bill-Dann, Baltimor, Nidan, Unimilk) and smaller factories in peripheral regions. In general, concentration of production has risen in recent years in many industries. For example, between 2005 and 2011 in the food processing industry, the number of meat product manufacturers has dropped from 500 to 403, the number of dairy products manufacturers has plummeted from 938 to 502, the number of beverage producers has decreased from 127 to 92 and the number of independent breweries has reduced from 126 to 74 [Emerging Markets Insights, 2012].

When gaining a large market share is not a feasible option, for example, due to the modest size of the parent company itself, subsidiaries may establish dominance in the premium market segments. For example, the Russian subsidiary of the Italian company LaFortezza S.p.A. supplies premium sales equipment to retail networks operating in Russia and the former Soviet republics, the Commonwealth of the Independent States (CIS). The Russian subsidiary of another Italian company Mapei has a strong position in the premium market segment of special building materials.

The presence and dominance in premium market segments set the most rigid requirements for the level of company competences. Regarding the entry into the mid-price segment and maintaining profitability, the most rigid requirements are set for unit cost. The unit cost defines the lowest possible price level; and the company competences (company know-how, skills and relations) are responsible for the upper standard of quality. As a result, Russian manufacturing subsidiaries face a paradoxical problem – to achieve sustained competency growth and to restrain or reduce unit cost. It is this goal that defines the essence of innovation performance for manufacturing subsidiaries.

Competence creation and competitive advantages of foreign subsidiaries in Russia

A specific advantage of foreign manufacturers in Russia is the availability of detailed technological regulations, guidelines and wizards covering every single aspect of the company's operation processes. These documents specify the regular way of production process. While it should hold for all manufacturing companies, independent of the owner's nationality, this is unfortunately not the case in many domestic firms in Russia.

The high rigidity of standards for maintaining production quality and safety pursues the same objective. While visiting PepsiCo Domodedovo factory, hundreds of thoroughly numbered mousetraps placed in every 10-20 meters were observed all over the facility including not only the production line but also the canteen, shops, corridors, offices and laboratories. The company representative explained that not a single mouse had been seen over the past years. However, according to the regulations, mousetraps have to be placed every 30-40 feet, if manufacturing involves ingredients as sugar. The example shows that production safety (both human and environmental safety) sets the double objective. Firstly, it is to instil the relevant rules of safety conduct in all staff members. Secondly, it is to adopt the practice of cross-checking, especially when performing dangerous operations. In the majority of studied companies, there exists an internal competition between production sites for the duration of work without job-related accidents or injuries, in days or man-hours. For instance, at Sertov, a Rhodia S.A. factory, this period equals to 12 years or 5 millions of man-hours.

Costs to control and stimulate quality assurance are considered indispensable production costs. In many factories, absence of job-related accidents or injuries is the main prerequisite for getting a yearly bonus, so-called "thirteenth salary", by all team members. This is the way to inspire collective responsibility for each other's actions. Another important element of quality assurance is a comprehensive audit of production processes conducted by the largest customers, e.g. Rexam factories producing beverage cans are audited by breweries, Rhodia factories fabricating a material for cigarettes – by tobacco companies. Such audit is commonly a very detailed, thorough work as it is aimed at preventing problems and violation of standards in the future. And it is in the direct interest of the largest customers themselves to do the work properly. The good results of such comprehensive audit at a particular factory are then disseminated all over the company.

The next factor contributing to the dominance of foreign subsidiaries over their domestic competitors is the existence of corporate information systems accumulating "best practices". Once again, "best practices" should be recorded in all companies, not only in foreign subsidiaries; however, this is rarely done in domestic Russian firms. Any novel decisions in Russian subsidiaries are thoroughly recorded, processed, reported to the corporate or regional headquarters and then disseminated across the whole multinational company in a form facilitating their replication in other units.

One more advantage, inherent to foreign subsidiaries, is the parent company's connections with other multinationals. By setting up their production in Russia, the largest multinationals create conditions for transferring production processes of their traditional

suppliers to Russia too. For instance, Rhodia launched the Russian production of acetate tow for cigarette filters in 1997, soon after the launch of Russian production by their clients, the largest Western tobacco corporations. In much the same way, LaFortezza started Russian production of sales equipment following the Russian expansion of its European clients – Metro, Auchan and Leroy Merlin. Such developments lead to the emergence of certain "enclaves" of business value chains, all of whom are foreign-owned.

HR management in foreign subsidiaries in Russia

Nowadays, the competitive advantage of every modern firm lies essentially in its human capital, the people that work for the company. They are both a competitive advantage and a source of innovation.

Our observations suggest that foreign subsidiaries excel in finding, recruiting and retaining a great amount of knowledgeable and skilled experts, mainly in managerial and engineering positions, who are genuinely dedicated to their responsibilities. It should be noted that very few of them are expats. The explanation has been received from two executives – a Russian manager heading a subsidiary of an Italian firm and a British manager leading a US company's subsidiary. The former put it in the following way, *"Our business, no matter how pretentious it might sound, is built on integrity – we neither give nor take bribes, we tolerate neither thefts nor lies, we do not even allow dishonesty in human relations. Here we have people who accept it and only such people are accepted by the firm. In practice it means that we select one employee from five applicants and are not afraid of hiring people without job experience, those who can be trained and developed"*.

The latter formulated it in a slightly different way, *"I've brought to Russia the principles I used to follow when working in other countries. Firstly, it is necessary to value, trust and respect every employee. Secondly, it is necessary to encourage the employees' ambitions. Thirdly, it is necessary to remember that money is in any case the top employee expectation from the employer. Finally, it is necessary to help the employees develop other needs besides material – the need to respect the colleagues, the need for self-actualization and creativity"*.

We recognize four key factors responsible for building and retaining in many aspects unique teams in the Russian subsidiaries of foreign multinationals. They are as follows:

Firstly, western companies that entered the Russian market in the mid-1990s have managed to attract staff from (former state-owned) R&D centres and defence industry. For example, during our visits, we met former aircraft engineers in food production laboratories and former nuclear engineers in chemical manufacturers. These are science and technology experts trained in the Soviet times according to the highest global standards. Many of them became unemployed in the 1990s following the collapse of the command economy, shrinkage of the defence sector and closure of state-owned R&D centres and institutes.

Secondly, all categories of employees – managers, engineers and workers – enjoy wide opportunities for regular improvement of their qualifications. Top managers of Russian-based representative offices can take up executive MBA programs in the best western business schools, engineers can enrol in special courses and get an opportunity of on-going communication with their counterparts from other subsidiaries in foreign countries, and workers can follow (advanced) vocational training. Moreover, Russian managers and engineers highly appreciate not only the company's care about their own training but especially the opportunity of improvement in qualification for their subordinates.

Thirdly, western corporations are open to hire not only young people, often without (relevant) working experience, but also elderly people and those having worked in the Russian subsidiaries of other multinationals or abroad. This is in stark contrast of dominant practices among domestic firms. In our interviews with enterprise managers conducted in 2011 [Gurkov and Settles, forthcoming], we have found that Russian companies avoid hiring young specialists (demanding necessary training), senior employees (ignoring their rich experience), and especially the employees with working experience in Western companies both in Russia and abroad (who would disrupt the current organisational process with their superior knowledge).

Finally, employees in foreign subsidiaries get rather specific treatment that can be characterised as both demanding and trustful. This treatment can be maintained due to the assessment systems based on objective performance indicators of an employee, department, factory and the company as a whole. In general, in contrast to domestic firms, we can see complete internal openness of information in western companies in relation to their employees. That does not, however, precludes technology and trade secret protection.

Towards unit cost reduction

The implementation of "responsible and trustworthy enterprise" practice with high-quality HR management must lead to high unit costs. However, it does not occur. In majority cases of the Russian subsidiaries, production costs are comparable with those of their Russian competitors. It has several explanations.

Firstly, foreign subsidiaries focus on new production equipment. Although our respondents have explicitly argued that their competitors, other foreign companies, bring second-hand production equipment into Russia, we have failed to see and validate it. At almost all factories that we visited, the existing equipment was new, designed in compliance with the general corporate standards and specifications. Only one manager has acknowledged that while launching the very first pilot production, the company brought second-hand equipment. Even then, all critical and crucial pieces – switchers, automatic systems and driving gears – were absolutely new, manufactured by the leading western companies.

In all subsidiaries, production equipment had been bought within the common corporate-wide system of equipment purchases and installed either by the specialised services provided by the manufacturers themselves or by the corporate assembly-and-maintenance services, i.e. by the company's own divisions or their global subcontractors. The use of new, technologically advanced equipment can lead not only to significant productivity gains but also, given the need for the growth in sales volume, to the unprecedented level of equipment utilisation – up to 98% in core production processes. Besides, new equipment saves the company from the costs of failures and the losses caused by off-schedule suspension of production. In addition, our research has revealed that when building factories in Russia, foreign corporations, especially U.S. ones, prefer not to economise on initial investments in the infrastructure – industrial buildings, storage and treatment facilities. It protects the second, third and subsequent production facilities setups from many problems, such as non-optimal configuration of production lines squeezed into a limited space, production downtime caused by the shortage of storage facilities, internal transport holdups, etc. Correspondingly, the launch of further production lines on similar sites leads to reduction in unit cost.

The second factor leading to lower costs is the unstoppable struggle for the reduction of use of raw materials and supplies on the established production lines. It reminds in fact the 1960-1970s practices of the leading Soviet factories. The business terms "lean manufacturing", "Six Sigma" and "benchmarking" are all about pursuing the goals of cutting production and overall

manufacturing costs. It is driven by internal (in the same subsidiary) and cross-corporate (between different sister-subsidiaries) competition. However, no compromises are allowed regarding either product quality standards or working conditions. The reduction in the use of raw materials can be striking. For instance, at the Rhodia factory, over 15 years, consumption of basic raw materials per ton of produced goods has declined from 70kg to 10kg. It has become possible exactly due to installing more efficient equipment during the launch of the second and the third production lines, and implementing the special *Global Level Production* program. In other cases, the rate of reduction in unit cost may be moderate but the economic effect is proven to be highly significant. The Russian factories of PepsiCo managed to decrease the total weight of a plastic bottle by only 1.3 gram, but that already led to substantial savings.

There is an effort to inspire all the factory employees by the idea of minimising the use of raw materials and supplies. Specialized general meetings can be arranged, with the issues of process rationalisation on the agenda. In the Soviet factories of the 1960s, that would be called "permanent operational panels", and today's foreign subsidiaries it is named "process centring work team". The team is engaged in the analysis of international performance indicators – Process Capability Index and Process Performance Index. Today's "financial benchmarking work team" used to exist in the Soviet times as "public bureaus of economic analysis". Despite the difference in terms, the essence is still the same – analysis of the current net cost, forecast and advance correction of deviations from the planned production net cost. Next, external seminars and workshops are arranged. They are aimed at sharing experiences between production service employees from different countries. Surely, electronic communication is widely used too.

The management often provides visual propaganda for the workers. These are eye-catching express leaflets placed in the most crowded areas, with statements such as "Shame upon the third shift that over-used the raw materials yesterday!" Once again, this reminds of propaganda and practices in the Soviet factories. Interestingly enough, the majority of foreign subsidiaries do not consider the work aimed at the reduction of the use of raw materials and supplies to be innovative. Rather, it is carried out within the framework of the corporation-wide programmes and regulations. Consequently, the compensation for such work is rather nominal, for example, a valuable gift at the end of the year when the cost saving plan is attained, management praise, and so on.

The third factor contributing to the unit cost reduction is the permanent search for new solutions to energy saving. And this is really different with the leading Soviet plants of the 1960s-1970s. The energy saving activities are perceived as innovative. In the majority of cases

they are initiated by the subsidiaries themselves and have an element of general corporate novelty. For example, in the Sheremetyevo PepsiCo factory, the coldness (+11C) of raw material – well water – is now used for cooling the manufacturing equipment. Normally, about 2MW of power is needed to cool down water that would be used to cool the equipment for soft drink production. The above solution, initiated by the subsidiary management and received a status corporate-wide importance, allowed for savings of 1.5 million kW*hours already in the first year. In the British multinational consumer packaging company Rexam, international energy saving teams are formed of engineers from the corporate engineering department and managers of respective factories from 3-4 countries.

The fourth factor facilitating unit cost reduction is a close relation with equipment suppliers who are often involved in particular rationalisation process right from the very beginning, i.e. from the point of acknowledging the rationalisation opportunities. It allows minimising the costs of "development" and "adjustment" of the equipment.

Lastly, at the majority of the examined factories we have discovered extremely Spartan conditions in the offices, including the office of the general factory manager. These are small rooms with plain furniture, without any special decoration. There are multifunctional meeting rooms too and they can be easily transformed to conference halls, teaching rooms, etc. At the same time, all public spaces both in the factory offices and production sites are very clean and well maintained.

From production efficiency to corporate expansion

As a result of all the above-mentioned factors, the Russian-based manufacturing subsidiaries find themselves in a very specific in a positive sense situation – in most cases they possess superior competences and yet do not have high unit cost. Therefore, good competences and moderate costs are precisely the factors that enable the foreign subsidiaries to enjoy medium and top positions in most Russian markets. Such position is very difficult to challenge. Unlike many products that can be rather easily imitated by the Russian competitors, full duplication of technological systems of foreign subsidiaries is extremely difficult.

Even if the domestic Russian competitors manage to purchase and install similar equipment, they are stuck with adoption of quality control systems, mechanisms of competence improvement based on accumulation of "best practices" and effective HR management aimed at

the best people in engineering positions. As mentioned before, such people are attracted to engineering jobs due to the opportunity to work in another production culture and to implement ideas concerning process improvement. They also appreciate superiors' respectful attitude to subordinates, objective criteria used to assess employee and team performance and efforts.

Acquisition by foreign multinationals of earlier neglected run-down factories built in the Soviet times leads to a chain of interesting effects. The first and the most important effect is the change in treating the Russian employees – in foreign subsidiaries they are regarded as skilful, creative, inventive, full of initiative people. As soon as this image takes root in the mind of the corporate top management, other effects become apparent. One of them is the Russian employees' promotion within the corporate-wide hierarchy both vertical – involving the Russians into the top management bodies of the corporation and "diagonal" – job offers to the Russian managers to run subsidiaries or divisions in other countries. For example, France's Lactalis Group, the world largest dairy products manufacturer with the global sales of 15 billion euros, is traditionally represented in the Russian market by the cheese brand "President" and since 2011 by the brands of Parmalat Company. Its marketing director of the CIS area is a member of the corporate-wide marketing board. Another Russian manager has taken the role of purchasing and procurement director in the Spanish subsidiary of this corporation, Lactalis Iberia.

Improved trust to manufacturing in Russia has resulted in broadening the scope of production techniques. Companies start considering a great variety of production opportunities in Russia. It can be increase in production on the existing lines to provide both domestic and foreign deliveries. For example, the Danish company ROCKWOOL manufactures goods for both Russian and European markets on the same production line. It may be launch of new lines at the existing plants, construction of new plants, purchase of Russian manufacturers and their subsequent overall modernisation; such changes have been observed in the half of the subsidiaries in the sample.

Foreign subsidiaries start engaging in joint ventures. This activity reached a peak at the beginning of the 1990s, when joint ventures were the only legal form of setting up a foreign manufacturing in Russia, followed by a long-run decline. Since the mid-2000s there has been a rise in formation of joint ventures. The combination of western technologies and Russian investment facilitates implementation of huge investment projects. For example, Solvay S.A., Rhodia's parent company, is currently participating in the construction of a factory worth of 1.5 billion euros in a joint venture with SIBUR. The plant is aimed at producing 330 thousand tons of polyvinylchloride (PVC) and 235 thousand tons of sodium hydroxide (caustic soda) annually.

On top of that, foreign subsidiaries use domestic Russian firms as contractors when producing famous Western brands.

As soon as all foreign subsidiaries operating in a particular Russian market broaden the scope of production techniques, the ability of making fast investment decisions about large projects is becoming of great importance in the competitive battle. It is explained by the dynamics of the Russian market and unpredictability of opportunities to acquire Russian factories that are potentially suitable to maintain proper costs and quality. Particular flexibility in making fast decisions about large investments is observed in family-owned German and French corporations. In these companies, such decisions, worth hundreds of millions euro, are taken either single-handedly by the owner or by a small group of people, avoiding extensive time-consuming procedures typical for public companies.

Organization of innovation process: innovation projects

Usually, decisions about large investments such as construction of new sites, launch of new production facilities and purchase of Russian firms are taken in the corporate headquarters. In contrast, the situation is more nuanced when talking about organising and financing innovative activities such as launching new products and modifying production process in “small” and “medium-sized” projects. The best practices of organisation of innovation activity in foreign subsidiaries differ a lot. However, generalising one may say that innovation activity is organised either in a divisional or matrix form.

In divisional systems, decision-making is clearly structured according to product groups (e.g. in Siemens there are 10 product groups) or regions (e.g. in Knauf). A combination of product and geographical structure patterns is used sometimes. In Solvay S.A., the corporation’s Managing Board includes Chief Executive Officer, Chief Financial Officer, Corporate R&D Director, General Manager of plastics sector, General Manager of chemicals sector, General Manager of Rhodia sector, and Regional manager Asia Pacific. Despite seeming ambiguity, such schemes are quite clear – there are both corporate-wide projects being developed by the central technology centres and channelled to the factories, and projects initiated by the subsidiaries themselves.

Projects initiated by the subsidiaries can be tentatively subdivided into medium and small ones. Medium innovation projects with a proper economic justification are sent for approval to

the sector management or to a smaller management body (global business unit) responsible for the group of similar manufacturers. If the project is approved, necessary financing is granted to the subsidiary. A similar situation is observed in relation to small projects – in global business unit a common fund of small projects is created and then divided between particular production sites in different countries.

In multinationals with regional divisions, this is even easier – both medium-sized and small projects are the responsibility of the regional manager who allocates resources. Drawing an analogy with history, we again note a typical Soviet system of Ministries of Industries and Production Central Authorities of the mid-1950s. That time, the "Liberman-Kosygin reform" (1965) created a large economic autonomy for state-owned enterprises that could form "production development funds". Presently, many subsidiaries may only dream about such autonomy from the parent company. To relieve the top management from the responsibility for allocating resources for small projects, similar funds are created at the enterprises themselves and are often based on very simple principles. It may be a specific amount of money per each ton of produced goods. Yet, this budget must be used in the respective accounting year and cannot be carried forward.

In some companies, small and medium innovation projects initiated by the subsidiaries are not differentiated at all. Everything that does not require new production equipment installation is considered a "routine" project of updating the product range and technology. Mapei Corporation, a producer of special adhesives and admixtures for construction and having 58 plants, is a good example. The company is proud of their high expenditures in R&D (over 5% of their annual turnover). It applies a well-tested algorithm to launch a new product into the market (building a "new formula"):

- Sales director of a subsidiary sends an application to the corporate-wide R&D department stating the reasons for the application (e.g. sustained demand), expected product specifications, the product equivalent in the product line of the company or its competitors, the degree of urgency for putting such items into production (high, medium or low).

- Head of the corresponding sector at the HQ R&D department carries out feasibility study and presents the research findings to the head of the HQ R&D department.

- In case of approval, an "internal technological project" is launched. This results in creating a new process chart – composition of raw materials, terms and conditions for mixing components, etc.

- The process chart is sent to the foreign subsidiary. Production director at the local factory arranges the launch of minimum production, consisting of not fewer than three samples (i.e. triple production trial).

- Factory laboratory conducts a quality control test of the received product samples. If the test results are positive, the samples are sent to the HQ for the final laboratory analysis.

- At the same time, field research is carried out, both on the site of the prospective customer and on the own testing site.

- Reports on the final laboratory analysis and field research are entered into the company internal information system and used as the basis for the finalisation of "production formula".

Then "formula activation" takes place:

- The local marketing department, jointly with the HQ marketing department, designs a new product packaging, provides translation and corrects the package design and notes, if necessary.

- The local factory starts manufacturing the new product. If necessary, product certification may be ensured on a voluntary basis. Simultaneously, production manager and quality control manager at the local factory work out new product specifications and adjust these specifications to the corresponding state standard specification.

This way, the Russian division annually initiates creation and launch into the market of 5-6 "new formulae". The whole Mapei Corporation launches about 200 "new formulae" annually. Like in any process-based production, there is a certain difficulty with the authorisation of raw materials, i.e. getting approval from the parent company for the use of local raw materials for new initiatives. However, as a whole the algorithm is rather accurate and efficient.

In companies with a matrix structure, there are no defined algorithms for local initiatives of subsidiaries. The point is that the whole business system is built around "global brands", so a particular country is just a place where both global and local (received by the corporation with the purchase of local firms or specially developed for low price segments) brands are produced and sold. The situation is complicated by the burden of old brands that global corporations might have in excess. Many still active brands come from the 1950s and even from the 1930s. It is sad to give up old brands, as the corporation's present top managers have built their career around them. If the brands cannot be profitably sold to the "second echelon" companies, corporations face irresistible temptation to transfer the old brands to the new markets where they must get "natural rejuvenation".

As a result, in matrix companies there is an on-going positional war between regional managers responsible for sales in particular countries and the close-knit hierarchy of global brand managers. The former ones want to have fresh brands for their regions, preferably adapted for the specifics of consumer perception in a particular country or region. Sometimes, even the brand name fails to be successfully transferred to another country – try to do anything with the brand "Zdrivery" (formed from the Russian word "zdorovje" (health) and the English word "driver") outside Russia. Consequently, regional managers expect large R&D budgets. As for global brand directors responsible for the sales of particular goods, they tend to maximize production of their own, often aged brands in every country. Global brand managers consider brand localisation as the last resort. They force the corporation to keep bearing additional costs on brand advertising and promotions and consequently, to enlarge the budgets they have at their disposal. As a result, the decision on the actual allocation of investments between global and local brands and, correspondingly, between the use of global recipes and development of local innovation always appears to be a temporary compromise that hardly satisfies the interests of either party. This is in fact consistent with tenets of literature on subsidiary-parent company relations [Birkinshaw and Ridderstråle, 1999]; [Birkinshaw et al, 2007].

Although in recent years such global high-tech corporations as GE and Siemens have been paying more attention to the technologies being developed in Russia and India (the Russian R&D division of Siemens is to triple the number of employees), in companies of the FMCG sector such impressive sounding jobs as Chief Technology Officer, Chief Design Officer (a completely new position created in PepsiCo in June 2012, occupied by a young designer with experience in Philips and 3M) stand mostly for developing new packages for old brands.

Developing new packages for old brands is precisely the type of medium-sized innovation project. A medium-sized project can be worth of $500000 in small companies and of $50-70 million in large corporations. Another example of a medium-sized innovation project is pouring hot tea into disposable containers – thin plastic bottles – in the Russian subsidiary of PepsiCo. Before that, in other countries the drink was bottled into returnable containers – thick plastic bottles. However, collection and reuse of thick plastic bottles totally failed in Russia. To solve the problem, many well-known but isolated solutions were combined in one complex solution. It is pasteurising bottle caps with the hot drink itself, creating excess pressure in bottles by injecting inert gas that guarantees both the maintenance of the thin plastic bottle elasticity and the protection of the drink from oxidation. This solution was adopted on three Russian production lines. As the popularity of cold tea in the USA was growing, the new solution was

granted the status of “best practice” and was successfully applied in the American factories of PepsiCo.

Launch of even a medium-sized innovation project requires joint efforts of the head of the Russian subsidiary, the global brand’s technical director, frequently the director of global brand’s international projects, and even the top corporate executive responsible for the given brand. It definitely requires additional efforts and time.

One more thorny issue is the question who commands the budget of “small projects” (product and process modification within the existent brands) which still remain in the Russian subsidiary of matrix corporations. Here we found out a great variety of solutions dependent on the definition of the modified product’s “key success factor”. If the company acknowledges tuning into the customer special needs, or even obtrusion of new needs on customers, as the key success factor, the development budget remains at the marketing manager’s disposal. Working on the project, marketing specialists compensate technical services and main line production for new product development costs, such as development of new process specifications and process charts, manufacturing line breaks for the period of a product trial production, etc. They also take responsibility for the project schedule and total results.

However, if the “key success factor” is the new product formula development, development budget is found to be in the possession of R&D department who compensate additional expenses to marketing departments and production units.

One additional question is whether totally local innovations are feasible in foreign subsidiaries in Russia, without attracting suppliers of product ideas, process solutions and production equipment from other countries. The answer is negative for both objective and subjective reasons.

The subjective reason lies in the fact that global corporations do not strive for total localisation of innovation process in particular countries. Firstly, the availability of international project teams and the opportunity of transferring the best practices from country to country are considered to be the most important competitive advantages of corporations. Secondly, in the Russian market, foreign multinationals keep applying marketing approaches that highlight the “foreignness” of technology or product, e.g. a new product line of ROCKWOOL emphasizes its “Scandinavian quality”.

The objective reason for the impossibility of the total localisation of innovation process relates to the problem of equipment rather than product ideas or process solutions. In the late 1960s in the USSR, new enterprises in the FMCG sector were set up with complex procurement

of foreign equipment. The last wave of the Soviet mass procurement of foreign equipment took place in 1985-1989. In this way, domestic production of equipment for the FMCG sector was inhibited. It is important to understand that the contemporary equipment does not only include "hardware" (production lines or machinery) but also "ceramics" (electronic control equipment and automation devices) and "software" (production management programs). Russian programmers and process engineers can compete in ERP systems on equal terms with the leading foreign suppliers. During our visits, some foreign subsidiaries proudly demonstrated their information systems designed and produced in Russia that had a clear advantage over similar systems used elsewhere in the corporation. However, these systems could not be applied in elsewhere in the corporation as their interface was tailored to the specifics of the Russians' perceptions.

As for the Russian manufacturers of industrial automation equipment, electronic control equipment, laboratory or other core processing equipment, they can only keep up with the world standards in particular cases. It is necessary to remember that these advantages must be significant enough to substantiate the inclusion of Russian suppliers into the corporate list of suppliers. When such advantages of particular Russian producers of equipment really exist, the local demand turns to be so high that such producers have neither need nor time to undergo complicated, too bureaucratic certification procedures for equipment suppliers typical for foreign corporations.

Conclusions

To sum up, we have focused on the experience of foreign manufacturers in Russia in an effort to examine innovation "routines". We have identified productions with modern equipment that are able to succeed in solving the problems of achieving the global efficiency and quality standards. The studied industrial subsidiaries are engaged in regular innovation activities. And these activities are normally done in projects classified in three categories. They are large projects – enlargement of production sites and opening new production facilities, medium-sized – design and launch of new production lines and supporting facilities, and small projects – modernisation of specific production units and lines, rationalisation of production processes, recipe improvement, reduction in manufacturing waste and more efficient use of resources, increase in energy efficiency. These activities are deeply embedded in the manufacturing systems aimed at (1) maintaining corporate-wide standards of product quality and production

safety, (2) detecting, formalising and accumulating “best practices”, and (3) providing decent attitude to all staff members.

The article has briefly sketched the current innovation practices of Russia-based foreign subsidiaries. It is impossible to tell the story of each and every studied company as they deserve separate scholarly articles, case studies or even whole books. What is clear is that this is and remains a promising avenue of further research.

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Igor Gurkov
National Research University Higher School of Economics (Moscow, Russia), Professor
E-mail: gurkov@hse.ru, Tel. +7 (495) 772-95-88

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