The strategy of the company Knauf, producing construction materials and systems in the context of the Russian economy modernization

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Abstract. The article discusses the economic aspects of the KNAUF group of companies’ activities in Russia in the context of economic modernization processes. Based on theoretical approaches to the analysis of the multinational manufacturing companies’ influence on national economic processes, the contribution of the group to the modernization processes in Russia is investigated. The correlation of the strategy and organization of the KNAUF group economy in Russia (organization of production, interaction with suppliers and consumers, investment and innovation policy, environmental and social aspects) with the key vectors of economic modernization, the risks are formulated for a positive projection of the company’s activities on the modernization processes.

1. Introduction

The problem of economic modernization is an urgent aspect of the economic development and economic policy analysis. At the same time, significant attention is paid to the activities of the non-resource companies, including the sphere of construction and building materials production, as forming the high added value and the multiplier effect of economic development. In general, the activities of manufacturing companies are seen as an effective tool for the structural modernization of the economy.

The modernization process includes such components as non-resource industrialization, innovative renewal, technology transfer and the large companies’ experience. The growth of the value added in the economy and the share of the national value added in exports are of great importance.

The incentives for the experience transfer and the TNC competencies as a modernization factor are:

- education and science development in the country,
- investment support for the development process,
- demand justifying the manufacturing localization.

The quality of human capital [1], the qualification of the workforce [2, 3], which ensures the transfer of knowledge and technology [4], are also of importance.

It is also important to establish the relations of the foreign companies with national manufacturers for the dissemination of vocational and technical skills, knowledge and technology. Participation in
“value chains” can be seen as an “opportunity window” for the national economy (mastering knowledge, technical modernization and industrialization provides global positioning in the context of increasing the efficiency of specialization in the innovative products’ manufacturing [5]).

The relations between TNC and the local economy (through the use of local raw materials, local personnel, their training, the formation of relations for the supply of components and finished products within the country) contribute to a gradual increase in the share of high-tech products in exports, and the share of value added in the country in exports. It is the manufacturing industry that provides the maximum effect on the formation of such relations (in the field of production, investment, knowledge) in the host economy [6].

TNCs should be able to purchase raw materials and components from the local companies. In this regard, it is important to form a network of competitive suppliers of resources and consumers of TNC products [3].

The companies in the construction and construction materials industries form the significant impulses for modernizing the economy. In Russia, the construction companies create 6.2% of Russian GDP, providing employment for 6.3 million people. (approx. 9% of those employed in the Russian economy).

The sector is attractive to large foreign companies, since the investments in residential buildings and structures make up 12.7% of the total investments in the Russian Federation. In addition, another 43.3% of investments are in buildings (except residential) and structures (in conjunction with the cost of improving land). Thus, the need for building structures and finishing materials in the country is at a high level. Investments in the construction industry proper in the economy are relatively low - 2.9% in 2018 [7], which indicates the industry’s need for investment.

At the same time, it is important to note the potential proactive action of the companies in the building materials industry in the markets [8], which is a factor in the economy modernization.

The work volume performed in construction in the Russian Federation has been growing since 2010, and in 2018 reached approx. 8.4 trillion rub. Due to the crisis in the Russian economy after 2014, the volume of construction in physical terms decreased after it reached a peak in 2015 (622.8 million m²) by 2018 (584.6 million m²).

At the same time, also after the peak of 2015, the commissioning of residential buildings, which in 2018 amounted to 75.7 million square meters, is steadily slowing. A decline in the industrial economy can be expected in 2020. However, the share of housing introduced at the population expense is growing (42.9% in 2018 or 32.4 million m²), which supports the market [7]. The process of updating the social infrastructure (kindergartens, schools, hospitals and clinics) also helps.

2. Research Results and Discussion

It should be noted that, along with domestic companies, in the construction market and building materials production in Russia from the beginning of the 2000s the companies from Germany, Turkey, China, and a number of other countries are widely represented, often involved in the implementation of the construction projects requiring maximum qualifications.

The experience of such companies in combination with the localization of their production structures in Russia is an important factor in increasing the development level of the industry and the modernization impulse in the economy.

2.1 Knauf: the key aspects of integration into the Russian economy structure.

Knauf Gips KG (KNAUF), headquartered in Bavaria (Germany), stands out for its long-term presence on the Russian market, the investments in modernizing and setting up the production facilities on the Russian territory, significant investments, strong integration into the social processes in the Russian regions, training centers’ organization, participation in significant regional projects.

The company is a multidisciplinary multinational corporation operating in Europe, Asia and America. The initial types of her specialization were the production of gypsum building mixes, gypsum plasterboards, dry cement mixtures, fiberglass insulation materials. In 1993, Knauf began operations in the Russian Federation, enterprises were acquired and created in the CIS. Today the
KNAUF group is focused on the solutions’ implementation in the field of dry construction, insulation, building mixtures’ use.

The factors of KNAUF entry into the Russian market were the prospects of the Russian market, which were especially significant during the period of the commodity market in the 2000s – as the period of the construction and growth intensification in demand for finishing materials. In addition, relatively cheap labor, provision with high-quality raw materials and the interest of the regional authorities in foreign investors became the favorable factors.

In the beginning of the 1990s, the company entered the capital of the heat-insulating and gypsum products plant in Krasnogorsk (Moscow region) and opened the first training center. Subsequently, auxiliary links were formed: in the 1990-2000s the production of metal profiles was opened in Krasnogorsk and Psebay, dry gypsum mixtures in Moscow and Astrakhan regions, Chelyabinsk, the Kuban and St. Petersburg regions, the production of KNAUF superlists and the floor elements in the Nizhny Novgorod region, KNAUF sheets in Novomoskovsk. From the beginning of the 2000s there was an expansion of production units: in Baskunchak, the production of dry gypsum mixtures appeared, in Krasnogorsk - the production of cement mixtures, liquid and paste products [9].

The expansion of production was combined with the approach to the consumers: production was opened in Kungur, Kolpino, Stupino, Irkutsk region, Tyumen.

In some cases, we can talk about a cluster approach to the organizing activities: for example, Psebay in the 2000s became a multidisciplinary production site (production of nealite, dry gypsum mixtures, metal profiles, production of "Sattengips").

The basis of the wide enterprise activity (LLC “KNAUF GIPS KUBAN”) is the rich Shedoksky gypsum deposit, the raw materials of which have a high degree of purity and whiteness, and are developed in an open way. Psebay-based dry mixes became the best in the KNAUF group [10]. Market growth and business scaling in the 2010s entailed the expansion in Psebay of dry gypsum mixes and dry construction mixes lines.

The dynamic demand factor in the 2000-2010s became the reason for a large-scale production modernization: for example, in 2012 in Kolpino, dry gypsum mixtures production modernization allowed to increase productivity by 20%.

A feature of the company’s behavior during crises (both 2008 and after 2014) was the preservation of the investment plans. So, in 2017-2019 KNAUF implemented a large-scale reconstruction project for the cardboard production in the Leningrad Region (KNAUF PETROBORD), continuing its spatial expansion (new enterprises and production in Chapaevsk, Novomoskovsk, Zvenigovo (Marily El).

2.2 The KNAUF group development strategy’s implementation in the context of the Russian economic modernization priorities

The KNAUF group strategy is largely correlated with the priorities of modernizing the Russian economy, which demonstrates the analysis of the relationship between the modernization priorities of the economy and the elements of the company’s development strategy in Russia.

The characteristic features of the KNAUF strategy were [11]: maintaining global performance standards, the German owners’ participation in decision-making, the flexibility and speed of such decisions, developing “from scratch” industries unique to Russia, launching the new products; a combination of well-known algorithms and the activity’s unique techniques; the largest investments in the history of the group in Russia. The accelerated development of the raw material base was realized; design and development of enterprises and the production automation was carried out.

The correlation of individual vectors of the company’s strategy in Russia and the economic modernization directions are shown in the Table:

| Strategic modernization direction | Mechanism for achieving the corresponding strategic goal | Corresponding KNAUF group strategy element |
|----------------------------------|------------------------------------------------------|------------------------------------------|

Table 1. The modernization strategic directions’ correlation of the Russian economy and the elements of the KNAUF group strategy.
Russian economy

Enhancing Global Competitiveness
- Increased production efficiency, upgraded production and equipment
- Creation and reconstruction of factories, automation and robotics, application of the production international standards, organization of labor and waste management
- The introduction of the new production technologies, the expansion of the product line and the sales market, the training of personnel and users, the encouragement of invention in the company, the participation in the organization of professional skill competitions

Increasing the share of value added in non-primary sectors
- Innovation
- Establishing links with local manufacturers
- Training and staff development
- The introduction of the new production technologies, the expansion of the product line and the sales market, the training of personnel and users, the encouragement of invention in the company, the participation in the organization of professional skill competitions

Growing in the share of non-oil exports
- The finished products and components’ export
- Deliveries of final and intermediate products to counterparties in the CIS and other countries, using the services of Russian personnel at other enterprises of the group in the CIS countries

The growth of spatial balance of the economy
- TNC participation in the regional business processes, tax payments growth
- Formation of the system-forming role of the group's enterprises in cities and regions of Russia, ensuring employment, population skills

Institutional Modernization
- Inclusion of business in the management decision-making system
- Inclusion of company representatives in the government commissions, participation in Russian business forums

1Performed by the authors according to the research results

The most significant aspect of the company’s strategy correlation and modernization processes is the production localization level, which maximally meets the task of the technological transfer and the economic modernization’s investment support. The given significant reliance on raw materials, personnel and production in various regions of the Russian Federation, the production of the KNAUF group in Russia today is localized by 98%.

A significant factor in achieving such a level of localization is reliance on local raw materials - both natural (the Glubokoe quarry in the Arkhangelsk region, the Psebay deposit, the mining complex in Novomoskovsk) and secondary raw materials (for example, KNAUF PETROBORD in Kommunar processes 250 thousand tons of waste paper annually) [9].

Localization is also achieved by updating the enterprises using the Russian equipment. So, in Zvenigovo, the production of dry construction mixtures with a capacity of 70 thousand tons per year was created using the Russian equipment, the production of gypsum binder with a capacity of up to 65 thousand tons per year was modernized.

Such a motive for the company’s development as “increasing corporate performance” plays an important role in KNAUF projects after the crisis of 2009 (expanding the raw material base in Central Russia, doubling the initial design capacity of the plant in Tyumen, and the large-scale reconstruction of the mining and processing complex in St. Petersburg).

The innovative activity of the group includes the production and introduction of the new products on the Russian market, the development of flagship projects for the group in Russia. So, the company has formed a line of unique high-tech products for the market. In particular, in 2019 the KNAUF-list
Sapphire drywall won the competition “Construction Quality Leader - 2019”, and the KNAUF GIPS company received the Grand Prix.

The Russian market has also become a testing ground for the new technological solutions: in 2019, in the Moscow Region (KNAUF GIPS), a factory for the production of building modules and prefabricated panels “New House” was opened, and this production format was innovative for the entire international KNAUF group. The project gives an opportunity to quickly assemble the buildings from structures prepared at the plant with built-in engineering systems and decoration. The “New House” production is equipped with high-precision equipment from Germany for the production of 100 thousand m² of prefab panels, as well as modules (the advantages are the ability to erect the objects in a short time, with minimal deviation from the project and practically no waste).

In addition to the technology transfer, the contribution to the quality modernization of the labor resources and production efficiency is made by the advanced training of workers in the building materials industry: training on the basis of KNAUF affects not only the plant’s personnel, but also representatives of the construction industry itself, users of the group’s products. So, in 2004, the company started creation of the KNAUF resource centers on the basis of a vocational school in Novosibirsk. Today, the group’s training system in Russia and the CIS has 80 training centers for working with materials and technologies of KNAUF. KNAUF Academy implements 24 programs in the field of dry construction, plastering, which trained more than 150 thousand people. The programs are provided by the professional and educational standards for dry construction and the educational literature created by the company. Today, in Russia, KNAUF has 6 training centers, 28 resource centers and 7 consulting centers for construction universities in Moscow, N. Novgorod, Kazan, Chelyabinsk, Novosibirsk, Irkutsk and Vladivostok. In the framework of cooperation with the universities that train civil engineers, the group opened a KNAUF training laboratory at MGSU in 2012, providing it with literature, materials, and the samples of construction equipment. The KNAUF Information and Consulting Center was opened on the basis of the FEFU Engineering School [11].

The group created a training system for the designers in Russia (KNAUF School of Design in Perm together with the Union of Designers, seminars for the construction industry representatives in Russia and the CIS). KNAUF also participates in the implementation of the WorldSkills Russia National Championship of Professional Excellence, having an agreement with the Union of Young Professionals.

The most important consequence of this kind of practice is the deepening of the relationship between TNCs and the local economy noted earlier in the theoretical part by increasing the number (and involvement) of product consumers in the country.

In 2020, the head of the KNAUF academy joined the public council under the ministry of construction of the Russian federation to work in a group of the council for professional education [9]. The council also takes part in improving legislation in education in the field of construction and housing and communal services, which, thus, allows talking about the participation of the company representatives in the formation of institutional conditions for the industrial development.

The Knauf’s investment strategy in Russia is sustainable and dynamic. The total investment for 26 years of the group’s work in the Russian Federation reached 1.62 billion euros, 19 enterprises were built and reconstructed, where today more than 4 thousand people are employed and 1.5 thousand products are manufactured.

The separate projects of the group in the Russian Federation are distinguished by the significant investments: for example, the reconstruction of the KNAUF PETROBORD production facing the cardboard required investments in the amount of 3.5 billion rubles, which made it possible to commission new equipment and increase the production of facing cardboard by 1.5 times - up to 860 million m² per year, to ensure the export of facing and packaging cardboard in the CIS and the EU.

The group’s investment projects are combined with a social responsibility policy, its environmental focus, and the participation in the regional economic projects (the group’s specialists were involved, inter alia, in the design and installation of an infection center with an area of 70 thousand square meters in Moscow in 2020 as a part of the fight against the COVID-19 pandemic).
The group implements a systematic environmental policy. So, the modernization of the enterprise in Kommunarka in 2019 included the treatment facilities’ modernization (in collaboration with the German company H + E), so that the quality of the water at the outlet was higher than at the entrance. One third of the investments planned by 2021 at this enterprise (KNAUF PETROBORD) in the amount of 3.5 billion rubles, is designed to improve the environmental production safety.

KNAUF GIPS Kuban implements similar greening measures, in particular, in the field of gypsum production waste processing, sorting, separate collection and minimization of enterprise waste based on the concept of “zero waste”. An integrated quality management system has been introduced at the enterprise, including the requirements of ISO 14000 quality standards and ISO 9000 environmental management [10].

Finally, it should be noted that the economic parameters of KNAUF enterprises are being formed as a part of strong inclusion in economic processes in the regions. In this regard, the company’s strategy correlates with the approaches of other (Russian) large business companies operating at the regional level and implementing the modernization vectors of economic development [12]. Moreover, according to [11], the activities of KNAUF CIS are not limited to PR and GR (government relations) events: the company in the regions of its presence has become an important element of political and economic processes. The participation of the group’s enterprises in the regions’ development is noted in competitions of entrepreneurial initiatives (victories in the categories “Business Developing Region”, RSPP award at the All-Russian competition “Leaders of Russian business: dynamics and responsibility”, title “Elite of the Russian construction complex”, prizes “Quality leader”, Golden Hundred diploma).

At the same time, the prospects for both the dynamics of the economy of the group’s enterprises in Russia and their potential for the modernization effects’ formation depend on the development scenarios of the global and Russian economies.

2.3 The Knauf enterprises economics risks dynamics in a crisis.

The processes that may create the risks of a short-term or medium-term slowdown in the company’s development and a decrease in its potential impact on modernization processes in Russia are global and national phenomena.

The risks at the global level include: the reduced demand in the global economy in 2020 due to restrictive measures due to the COVID-19 pandemic, the reduced profits and investment opportunities for the company, slow recovery of communications and goods flows.

In Russian conditions, additional restrictions may include a drop in consumer demand, a decrease in demand from the small enterprises and individual entrepreneurs, and unevenness of the recovery process in the regional dimension. In addition, in the Russian Federation, the risk factors include the structural crisis that has not been overcome on the economy scale as a whole, and the reduction in construction volumes caused by it, as well as the temporary fluctuations in budget revenues (due to the volatility of commodity prices), which makes the dynamics of the budget expenditures unstable, including in the field of investments in the field of social capital construction (which generates a significant part of the demand for finishing materials).

At the same time, the factors that can rely on the restoration of demand, economic indicators of the group and the intensification of its investment activities include the measures to support the population and business in the world markets (the US and the EU), the restoration of commodity markets, and, as a result, the recovery of income budget and population of the Russian Federation.

3. Summary

The KNAUF group strategy in Russia, formed by the general principles of the group’s work, the characteristics of the Russian market and the dynamics of the Russian economy, today includes a number of components that are important not only for the development of the company, but also fit into the paradigm of non-resource-based modernization of the Russian economy.

The key aspects of the contribution of TNCs to the modernization of the Russian economy include the investment saturation and innovative transfer, staff development, the formation of non-resource
export potential, regional development, and institutional transformation. An analysis of the priorities and formats of KNAUF activities in Russia made it possible to establish a correlation between the elements of the company’s development policy in Russia and such long-term modernization priorities as increasing the global competitiveness, moving away from the raw material development model, improving the quality of human capital, and creating an institutional environment favorable for business.

At the same time, the economic crisis as a result of a pandemic and lower prices for the raw materials exported by Russia (which reduces the demand in the economy) serve as risks for prolonging the positive impact of the company on economic modernization processes, however, measures to support the economy, as well as restoring the market conditions and demand, may become the risk-leveling factors in construction.

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