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## Problems of organization of modern industrial corporations in Russia: role of vertical integration

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### ABSTRACT

This article demonstrates the value of vertical integration for industrial development. The essence of vertical integration and the advantages of uniting into industrial groups of technologically related companies is considered. The role of transfer pricing in increase of effectiveness of activity of vertically integrated structures is shown.

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## INTRODUCTION

Notwithstanding the long period of reforming the Russian economics, the dynamics of development of industrial production, forming the basis for the economic safety of the country, there remain many controversies and unsatisfied – there is no sharp growth of production and it is not forecasted in the nearest years – on the contrary there is obviously the tendency for stagnation observed. On the background of the negative 2009 (90.4 % as related to the previous year) the general index of industrial production in the Russia Federation in 2010 constituted 108.2 %, in 2011 –104.7 %, and in 2012 – just 102.4 % (<http://www.gks.ru/wps/wcm>).

It is worth allocating creation of new high technology and knowledge-intensive productions to unsatisfactory results of modernization, as well as national goods, workplaces, GDP growth at the cost of industries with high added value. Taking into account all growing arrears of our industry from many states, energy measures on arrangement of modern large corporations are necessary and clusters of industrial nature on their basis. Actually, V.Putin was speaking about it in his pre-election series of articles: «The opinion is often told that Russia does not need any industrial policy. That, choosing priorities and creating preferences, the state often makes mistakes, supports the ineffective, and interferes with the new, which must grow out of equal conditions of competition. It is difficult to argue with such statements, but they are fair only in line with other equal conditions. . .» (Putin, V., 2012).

### Methods:

In the course of working over the article the general methodological principles of scientific knowledge are used, the system approach, the fundamental of theory of the firm, theories of the market relations, the economic analysis, the organizational development, the economic and mathematics modeling of integrated systems and interaction of their participants. The legislative and regulatory acts of RF are used. In the course of the research the papers of the national and foreign scientists were used on research of management systems, the theory of the firm, the theory of organization, the theory of management, the institutional analysis, the economic analysis of the companies.

### Main part:

The experience of the developed countries insistently shows that arrangement of innovative processes is available namely to large corporations, where they are the system integrator of material, financial and personnel resources of different level, become the main consumers of the inventions and innovations for small business. Small business itself unconditionally is the important part of the economics, but it is not able to play the role of

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the engine – there is the need in large industrial productions, connected with international relations (Mezhov, I.S., 2012; Mezhov, I.S., 2011; Teece, D., G. Pisano, A. Shuen, 1997).

Such understanding comes to the government of the country: «These were just the priorities of industrial policy why we acted for creation of large state corporations and vertically integrated holdings. . .» (Putin, V., 2012). Being agreed with the planned perspectives, with V. Putin, nevertheless, it is worth expressing the disagreement with the evaluation of the results achieved. He states that «The goal was to stop the destroy of intellectual spheres of our industry, to preserve the scientific and the manufacture potential at the cost of consolidation of resources and centralization of the management. This goal may be deemed as achieved» (Putin, V., 2012). This should be mentioned that thus statement is too optimistic.

It is worth mentioning that there is capacity for industrial growth: Russia possesses many unique technologies of the 5<sup>th</sup> and the 6<sup>th</sup> technological modes. However it is not possible to realize this potential in full, to which testifies the structure of the Russian goods export – the share of highly technological machines, equipment and transport vehicles makes just 3,6 % (Russia in digits, 2012). As certain experts consider, Russia is positioned as the supplier of energy and some other primary resources: petroleum products, gas and products of metallurgic industry.

Russia needs extreme measures on restoration of industrial potential, competitive capacity of the national products and preservation of the Russian statehood. The basis for development has to be the large industrial formations, which in our conditions may be created, including on the basis of mechanisms of integration. Just they are able in conditions of joining by Russia to WTO and increasing international competition to concentrate the necessary resources and the capital for the subsequent growth (Mezhov, I.S., 2011). And with this there shall be provided the all-around introduction of technologies to produce goods of mass demand with high added value (Nelson, R., S. Winter, 1982; Dosi, G., D. Teece, 1998).

#### *What are the advantages of the integration?:*

The *integration* means the process of mutual accommodation and uniting into the organic whole of organizations, industries, regions or countries etc.; combining economic entities, strengthening of their interaction, development of links between them. Economic integration shall express itself in both – expanding and strengthening of industrial and technological links between the companies, joint use of resources, combining capitals, and creation for each other of advantageous conditions for performing economic activity, removal of mutual barriers (Large economic dictionary, 2004).

In our work we make a stress, first of all, on the vertical integration, which means production and organizational uniting, merger, cooperation, interaction of the companies, connected with joint participation in manufacture, sale, consumption of the consolidated end product: suppliers of materials, producers of minor components, assemblers of the end product, sellers and consumers of the end product.

Vertical integration is often divided into «integration forward» (or direct) and «integration backward» (or reverse). *Direct* integration means uniting with the subsequent stages of the chain for creation of the value (consumers of the manufactured products). Often a company associates organizations, performing sales functions (transportation, logistics, service, sales itself). *Reverse* integration means uniting with suppliers of resources for the purposes of guaranteeing deliveries, their cheapening, improvement of the quality of raw material and products. Often such form of integration is accompanied with specific investments.

A vertically integrated firm in its classical meaning combines control over the property and behavior of the participants; it is usually created via merger (acquisition). If we speak just about control over the behavior of participants, then such relations are called vertical restrictions (Mezhov, I.S., S.N. Bocharov, 2010).

Vertical integration allows reduction of costs on stages of obtaining and processing of raw material, reduction of ready products price, increasing its competitive capacity, growing production volumes, labor productivity and due to this creation of condition for expanded reproduction and accumulation of the capital and development of all participants of production chain. Especially important is presence in the integration schemes of companies of the raw materials approaches, which products generates large added value. As price for resources sets economic proportions, which through the system of inter-industry relations determine the structure of costs in the whole chain of the added value and establish the price of the end product. If the price on the raw material is high, all subsequent links will have to reduce the volumes of its purchase, which leads to reduction of production volumes and reduction of consolidated returns of the integration participants. This is how the law of vertical integration is expressed. It is announced by S.Gubanov (2009) and was actively discussed on pages of the magazine «Economist» by A.Amosov, Z.Grandberg etc. Its essence amounts to *prohibition to extract the profit from the intermediary stages in the course of manufacture of the end product*.

Really, the market interaction narrows the borders of the firm to one certain company and aims at increase of the effectiveness of the activity just of it. Integration expands the boundaries of the firm, puts all companies, belonging to the production and technological chain of manufacture of the end product, and shifts the accent in evaluation of the effectiveness from one company to the accumulative effect of all participants belonging to the chain.

Consequently, pricing proportion are the most important factor for generating the end effects for the integration participants. Not by coincidence many researchers pay much attention to the problems of arrangement of economic interaction of participants of integrated systems based on the transfer prices. Their implementing is the embodiment of the law of vertical integration.

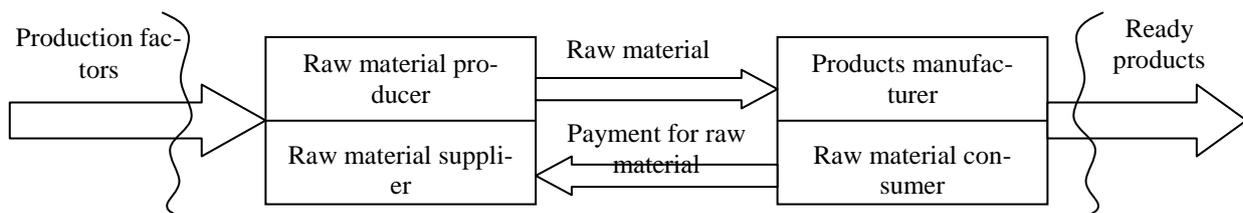
On the whole the vertical integration provides the following advantages:

- Reduction of costs at intermediary stages of manufacture of products for the reason of reduction of prices at the raw and other materials;
- Growth of labor productivity and reduction of the prime cost of products due to scale effect and reduction of the share of constant expenses in the price of products manufactured;
- More favorable conditions for concentration of investment resources and realization of innovation projects, starting from modernization of technological processes and ending with improvement of management methods and arrangement of manufacture;
- Presence of the possibility to arrange the closed cycle of manufacture from processing of products to its sales with the purpose of forcing out the intermediaries, increase of profits and growth of competitive capacity;
- Concentration of property, creation of large integrated formations, able to overcome the market barriers.

Also one should not disregard the arguments of organizational and management nature, which are provided by vertical integration. They include: reduction of time and transaction costs for conducting negotiations; availability of numerous effective instruments for management over interactions of the «supplier» and the «consumer», including penalty sanctions and incentives; implementing administrative mechanisms for fast resolution of cross-divisional conflicts; reduction of time and costs on processing of informational flows; reduction of expedience; increase of mutual trust; effective mechanism of control over observation of contractual conditions.

*Sources of integration effects:*

The unit of analysis of interaction of participants of vertical integrated formation is the link «supplier – consumer» (fig. 1).



**Fig. 1:** The link of interaction of vertical integration participants

The figure presents two companies – integration participants: the one is a supplier of resource, and the other – their consumer. Both – the «supplier», and the «consumer» together take part in manufacture of products and, respectively, in formation of financial result – the wavy lines represent the boundaries of the firm, reasoned by the property relations. The «supplier» sells raw materials (materials, semi-finished products, products for sale etc.) to the «consumer». Between the agents of exchange there are two alternative forms of interaction coordination possible: 1) the market mechanism and 2) the administrative (hierarchy) mechanism. Within the framework of the set boundaries the relations between the companies may be based not on the market, but on the hierarchic coordination of interaction between the participants, which are dictated by the management of the head company (the owner) of the integrated formation. This allows minimizing the transaction costs in the system of exchanges and finding additional opportunities, connected with generation of synergetic effects.

The given figure is rather schematic. In reality the composition of an integrated formation may include much more participants, forming the chain, consisting not of one, but of two or more links. Also the number of participants may include structures, not connected by technological processes. But they, nevertheless, also make significant contribution into the consolidated effect, as they provide the necessary financial and other infrastructure (for more details see (Mezhov, I.S., S.N. Bocharov, 2010)).

Together with that it is worth mentioning that additional advantages from integration do not arise automatically from the fact of its arising itself. Literature contains a number of justified arguments against integration. The key idea is that vertical integration is less effective due to insufficient motivation and bureaucratic distortions than interaction of the independent market entities. When comparing the results of interaction of participants of integration and independent companies the results of the latter often turn out to be higher. But, firstly, this is fair, mainly, for conditions of free competition markets (without administrative interference), which does not correspond with the reality of the modern Russia. And, secondly, in conditions of the developed market the

integrated forms provide good results, which are testified by the growth of activity volumes of the leading transnational corporations.

In order to carry out the possibilities of the integration, the respective level of management development is needed, implementing modern achievements of science and practice and taking into account at least the following principles:

- Vertically integrated formations shall be considered the an integral production systems, and separate companies – as their related parts;
- The key activity shall be the unified integrated technology, complementary uniting all companies in the chain of creating the value;
- There shall be investment policy realized, taking into account the priorities of integrated formation on the whole, but not the separate participants;
- Planning of the activity of participants of the integrated formation shall be carried out proceeding from the end result (sales programs of the last link in the chain);
- Performance of strategic tasks and coordination of the current activity of participants of the integration shall be carried out within the framework of the centralized corporate management;
- Integration shall provide the necessary concentration of the capital, technical and resource equipment of participants of the integrated formations in order to perform the set production program;
- In the course of making decisions concerning market outlets or other spheres of activity it is necessary to carry out serious analytic work and to use the specially developed instruments equal to the situation which arise.

The last principle shall be especially stressed. In reality, even widely known analytical and management instruments, having manifested themselves well in practice of management of a separate organization, require reviewing as applied to the integrated formation.

This way, as applied to the integrated structure it is worth changing approaches to pricing – in arrangement of interaction between the participants of integration it is very perspective using transfer prices. Transfer price (in other words – internal price) is the product or service price, at which one subdivision (site, workshop, division etc.) supplies to the other subdivision of the same organization. If we look at figure 1, their implementing may be illustrated as follows. The products are supplied to the «consumer» at transfer prices lower than the market prices, and reimbursement to the «supplier» of the difference between the values of the products (between the market and the transfer prices) takes place later from the revenues of the «consumer» with a certain premium. The amount of the premium shall coordinate the economic interests of participants and shall not allow violating contractual provisions.

#### *Opinion:*

The researches performed in (Mezhov, I.S., S.N. Bocharov, 2010; Bocharov, S.N., O.I. German, 2012) confirm the substantiation of our statements and prove the possibility of obtaining by the integrated formations of additional results from the activity at the cost of synergetic effects. We would like to hope that this form of arrangement of industrial manufacture will get its rightful place in the course of development of the national industrial policy.

#### *Conclusions:*

Due to the different mechanism of prices formation the vertical integration shows its advantages. It allows restricting extraction of the profit from the intermediary stages in the course of manufacture of the end product. Unfortunately, its implementing is prevented with the imperfect regulatory base in the sphere of governing the activity of the holdings. In accordance with the current legislation transactions between subdivisions of the same holding are equaled to transactions, performed by independent participants. Consequently, the pricing and the taxation regulation are carried out almost in the same way, which reduces the opportunities to carry out potential positive effects.

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