The main trends in the development of the corporate innovation systems

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Abstract. The article is devoted to the trends in the development of corporate innovation systems in difficult conditions of globalization, informatization and intellectualization of society. In these conditions a corporation has become a dominant factor in both the production and reproduction process, the most important institution of the modern economy. The article views the main trends of the development of modern corporations: 1. Enlargement of corporations, increase of their role in the scientific and technological process and in the global economy. 2. Complication of property structure of corporations, concentration, floating and interpenetration of capitals. 3. Application of high-speed information and communication technologies. 4. Acceleration of the internal organizational development. 5. Regionalization, in particular, transnationalization of corporations. 6. Formation of new external alliances and strategic partnerships. 7. Innovatization of corporate organizations. The characteristics of innovation-oriented corporations are highlighted: – entrepreneurial behavior aimed at the assimilation of new innovative processes and implementation of new ideas; - global creative activity of personnel, a high degree of communication development; – transformative management, profitability and risk optimization, flexibility and adaptability of the organizational forms. The innovatization effect in the conscious innovation development of corporations, ensuring high growth in manufacturing and services.

Keywords: Corporation, innovation, structural-functional approach, development, regionalization, innovatization, system.

Introduction

The XXI century is characterized by the transition of the leading corporations to the modern models of innovative development which own proactive approaches to the international innovative ideas [1].

The studies made in this field have shown that an increasing share of economic growth accounts for a part of innovation, and, therefore, the companies which focus on innovations compete with other organizations much more successfully.

The identifying and research of the development trends of an economic system, the analysis of the factors affecting the major trends of changes, the specification of the dominant and promising trends are important considerations in the effective management of any object under study. Especially it concerns the management of the corporation development in the complex and dynamic era of globalization, informatization and intellectualization of society. In conditions of globalization development a corporation has become a dominant factor in both the production and reproduction process and one of the most important institutions of the modern economy. The basis of choice of the innovative development trends of the corporate systems is a search for rational plan of the product innovation management.

Russia, at all stages of development, is characterized by the dominance of large corporations due to the geographic scope of the state, a large population and, as a result, the necessity to create a mass of goods and services. The industrial production reached its highest concentration in the period of industrialization (30-ies, the XX century) and the building of socialism (till 80th, the XX century). Due to the mass privatization in the 90ths the socialist enterprises were corporatized and the main form of organization became a public corporation.

A corporation is an inertial economic system in which the power of the accumulated processes determines the future path of movement. In this regard, the study of the formed trends of the corporate development is an important aspect of the analysis of innovation processes. The trends of one or another economic system under study can be grouped according to the following criteria:

- typical (typical for a large number of the companies) and special;
- global (coinciding with the general trends in the country and in the world) and local (specific to one region);
- short (formed in the period up to 3 years) and long term (operating for more than 3 years);
- stable and sustainable;
- essential (in terms of achieving goals) and unessential;
- positive and negative [2].

Based on the set goal, the article explores the contemporary directions of the innovative development of a corporation. There are modern models of innovation including the use of business innovation. According to the researches by the American scientists, business innovations favor a substantial reduction in the costs that are associated with the production and consequently affect the quality of the manufactured products.

This can be seen in one of the private corporations in China for the production of motorcycles - "Longxin" or "Zongshen" as an example [3].

The structure-functional approach to the innovative development of corporations

The foreign experience of formation and functioning of corporations is reflected in the works of I. Ansoff [5], A. Tompson, K. Toehiro, R. Akoff and F. Emery [6] and other scientists. The analysis of these scholars' works gives a reason to approve that the main trends of the development of modern corporations are:

1. Enlargement of corporations, increase of their role in the scientific and technological progress and the global economy.

   This is a reflection of the general trend of economic integration. As Richard Pascale noted, corporations are the prevailing social institutions of the present time [7]. Today only 300 large corporations control 25% of all production facilities [6]. The volume of generated added value of individual transnational corporations exceeds the GDP of some developed countries [8]. The leaders of the world's high-tech are just large corporations such as IBM, Sony, Microsoft, Siemens, Intel and Samsung (Table 1).

   The typical "corporate boom" can be explained by the fact that a company has the undoubted superiority to the small and medium businesses, namely: a possibility of saving on production volumes, an access to the cheap credit resources, the most extensive and diversified export market, the opportunities to attract the best professionals and use the scientific and exploratory divisions, also design and experimental divisions, the reserves for risky and breakthrough works.

   At the same time it is impossible not to notice the weak points of excessive enlargement of corporations: the probable loss of flexibility in response to the market needs; the reduction in the level of controllability, the growth of contradictions between the parent company and the subsidiaries.

2. Complication of property structure of corporations, concentration, floating and interpenetration of capitals.

   This trend is developing in two forms:
   - the concentration of capital through the accumulation (internal organic growth);
   - mergers and acquisitions of companies;

   Both directions are used in the modern development and form its organizational basis.

   For example, in Russia the scale of mergers and acquisitions rose from $2.7 billion in 2000 to $4.9 billion in 2002 and $16.8 billion in 2008, the pre-crisis year. Mergers and acquisitions lead to the formations of super corporations that are compared with the GDP of the whole country in the economic dimension (e.g. Gazprom, Lukoil, RAO "UES", "Norilsk Nickel", etc.). Also the second-largest aluminum holding "Russian holding" was founded in Russia which controls 70% of Russian and 13% of global aluminum.

Table 1. Global operations of five largest multinational diversified corporations

<table>
<thead>
<tr>
<th>Corporation</th>
<th>Activities and geography of its activities</th>
<th>Directions of diversification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sony</td>
<td>Operations in more than 100 countries, sales representatives in more than 200 countries.</td>
<td>- TV, DVD-players and Video-Game Consoles; radios, PCs and monitors; Telephones; - Computer games and software for video games, including mobiles; Computer; Travel insurance business; - Other activities (financial services; internet membership)</td>
</tr>
<tr>
<td>Philips</td>
<td>Operations in 57 countries, sales representatives in 150 countries.</td>
<td>- Home appliances; - Consumer electronics; - Electrical; - Camera; - Lighting; - Entertainment systems.</td>
</tr>
<tr>
<td>Nokia</td>
<td>Operations in 30 countries, sales representatives in more than 150 countries.</td>
<td>- Mobile phones; - Consumer electronics; - Networks; - Internet services; - Broadband.</td>
</tr>
<tr>
<td>Siemens</td>
<td>Operations in more than 100 countries, sales representatives in more than 190 countries.</td>
<td>- Power generation, production, research, etc.; - Production of industrial engines, industrial computers and tools; - Information and communication public corporations including innovations; - Medical equipment, medical systems for hospitals; - Airconditioners, air systems, smoke detectors; - Lighting equipment; - Consumer electronics, telecommunication equipment.</td>
</tr>
</tbody>
</table>

Source: Annual Reports and Corporate Websites

The similar processes are observed in other industries. Thus, a new image of superpower world economic structures appears. Any corporation that doesn’t manage to adapt to the continuous changes taking place in the industry in time is not competitive [9].

There are the following types of fusion depending on the integration in practice of management:

- Horizontal – one industry union organizations;
- Vertical – union organizations of different industries associated by the technological production process of the finished product;
- Generic – union organizations producing interlocking products;
- Conglomerate – union organizations of different industries without a productive community.
3. Application of high-speed information and communication technologies as satellites successfully developing corporations.

From the 80-ths of the last century, mankind has embarked in the latest stage of its development - the stage of building the information society. It broke the isolation of the corporation, and the consequence of it was an almost instantaneous spread of new ideas and intellectual developments. The tighter competition called the corporation to form its own information space where all the external needs and development potential fix. Currently more than 50% of European corporations use the high-speed information technologies and complicated intellectual work. Only 3% of all workers are employed in agriculture, 10% - in production, and the remaining – in the information and intellectual sphere in the U.S.A. [10]. According to K. Nordstrom’s figurative expression, the infrastructure is an electronic nervous system of any corporation, and it becomes more significant [11].

At the present time, information systems create and store information about customers, employees, suppliers and production, financial results of work and, most importantly, about the latest business ideas, new technologies in science and technology achievements in informatics, cell phone, electronic medias, e-mail allow companies to react to the changes in the environment timely and strategically and to work in space and time most effectively. The spread of global information system – Internet – enabled to transfer many managerial operations into on-line mode [12].

4. Acceleration of the internal organizational development of corporations, increasing interconnection of the business growth with quality management, increasing the role of human cash.

It is connected with ensuring survival in the situations of increasing competition. According to Stephen McClellan, the companies which development slowed down, actually go to ruin. Any corporation that doesn’t manage to adapt to the continuous changes taking place in the industry in time is not competitive [8]. As Gerber points rightly, "the business development process should be constant because the world with its characteristic movement will not tolerate a stationary object" [13]. An outstanding cybernetist W.R. Ashby’s theorem about the necessity of the diversity management became the logical understanding of the processes occurring: "in order to withstand the environment, the complexity and rapidity of decision-making in the company must comply with the complexity and rapidity of the changes occurring in the environment" [14, 15]. Many modern corporations, both Western and Russian, seek the newest forms of the organizational and corporate management vigorously [16, 17]. The codes of corporate conduct are enacted, the horizontal, matrix and project organizational and functional structures of the business form.

Most corporations introduce the independent directors into their counsels (to protect the interests of the small shareholders among other things), draw the familiar international consulting and auditing companies, the active restructuring hold getting rid of non-core and low-performing assets (corporation "cleaning"). All this on the whole points out the trends to the quality improvement of the corporate management, to the enhancing the role of human capital [18].

5. Regionalization, in particular, transnationalization of corporations.

This trend is aimed to the geographical development of corporate organizations, their introduction to the markets of other regions, which, as we know, may differ by the labour intensity and solvency of customers, by the local political and social risks, by the variety of resource potentials. The regionalization allows the companies to increase their stability and to harshly increase the volume of work what makes the latest organizational institutions more powerful. In this process such corporations as Intel, Siemens, IBM, Johnson&Johnson, Motorola, BritishPetroleum, BritishTelecom, Xerox, Hewlett-Packard and others have become the world's leaders.

6. Formation of new external alliances and strategic partnerships.

This allows the corporations to be the open systems and capitalize their assets rapidly by this (the closed systems, in contrast, sooner or later come to the disintegration, disorganization and decay, the negative centrifugal directions develop in them). The formation of alliances by the companies has a rich history because previously the corporations of industrially developed countries used them for export and introduction to the local markets of the least developed countries. In modern conditions the strategic alliances are the tools for general promotion and greater involvement in the activities in the global market. Such a concept of alliances for the Russian corporations becomes very relevant, because it allows the combined companies to focus efforts against a common opponent.

The technological and market factors that form both horizontally and vertically influence on the formation of alliances mostly. The main arguments of the formation of the strategic alliances in modern conditions are:
- Protection (access to the markets);
- Imitation (strengthening the competitive position);
- Holding the position (getting the maximum benefits);
- Reorganization (providing with potential for independent work separately from the parent company).

The globalization of business, the development of information networks and strategic alliances, working out the value added chain formation - the given organizational innovations allow to present "the best in all respects" company in which every function and process realizes at the global level. As the result the production achieves the greater efficiency, the capitalization and the investment attractiveness of the company grows, the possibilities of the innovative development increase [19, 20].

7. Innovatization of corporate organizations.

The most of large corporations form the specialized departments of the innovation development (innovation services, scientific and technical centers), forecasting and analytical departments, R&D units (laboratories and workshops) and "offices of the future", create the knowledge management systems based on the innovation and marketing structures, the industrial parks and agencies for technology transfer, etc. Some companies are beginning to directly specialize in the innovative projects and their commercialization (technology companies, venture capital firms).

Conclusion

In the global economic literature the innovation (in the broadest sense) is characterized as transformation of possible scientific and technological progress in new products and services. So, B. Twiss characterizes the innovation as a process where the invention or idea acquires a definite economic content. The current world market of innovations exceeds $ 2 trillion of which the U.S. share is 39%, Japan – 30%, Germany – 16%. Etc.

The U.S. corporations, that are the leaders in the world economic development, are on the first place even in the process of changes associated with globalization.

The innovation-oriented corporations are characterized by:
- The entrepreneurial behavior aimed at the assimilation of the newest processes and the implementation of new ideas;
- The global creative activity of personnel, a high degree of communication development, of interpersonal relationships and encouraging a person’s self-expression;
- The transformative character of management, of profitability and risk optimization, flexibility and adaptability of organizational forms [18, 21].

The large effect of the innovatization is that the corporation currently provides the conscious innovative development with the help of high growth rates. It is no coincidence that the number of publications related to the innovation and the innovation process is rapidly growing recently.

A branch of science that studies different theories of innovations (for example, the creation of innovations, their distribution, the resistance to the innovations, the development of the innovative solutions) is called Innovations.

Thus, all seven major trends studied have stable and long-term character and they will determine the trends of the future economic development.

Search for the optimal plan of innovation management is only one of a set of tasks that confronts the process control system of the innovative development of the corporate system. It is not enough to recommend a successful concept for the organization and management of innovations.

The ways of management (the formation of plans, decision-making order, information sharing) and organizational structure of the corporation are considered exactly when developing new technologies. Procedure and forms of organization of the innovation management process determine the structure of the management system, and, conversely, the structural solutions adopted affect the solutions in the field of the management methods. Only the interrelated analysis of these two problems allows to accurately set and distribute the tasks, the rights and obligations between the governing bodies when entering the product innovations to ensure the conditions of the innovative development of the corporate systems.

The application of the proposed approach in economic practice is a difficult task and this complexity has two main sources. Firstly, it is due to the complexity of the management object. Secondly, we must pay attention to the difficulties which are associated with the factor of use of the proposed management methods, in other words, to the difficulties that are inside the approach itself.

Undoubtedly, the use of the proposed regulations in the practice makes the leadership more complex: increases the level of detail plans, the additional reporting is introduced, the intensification of information exchange between the structural units takes place, etc. But this complexity is largely offsets,
on the one hand, by the extensive use of the electronic technology, and on the other hand, - the specific structure and regulation of the apparatus of the innovation management. The latter reflects on the so-called management plan (management plan). It is a document containing the general guideline directions in the boundaries of which the project is organized, controlled and managed to achieve the set goals of the innovative development of the corporate system.

The systemic and structural and functional approaches to the development and implementation of the trends of the innovative corporation development are the most important strategic and tactical corporation resources.

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