

MULTI-LEVEL PARTNERSHIP AS A FORM OF NETWORK ORGANIZATION

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ABSTRACT

The modern economy is developing in the direction of the network organization of the business. The network structures of firms have various forms. The purpose of the article is to analyze multi-level partnerships as a form of networked business organization. As a result of the study, the following tasks were solved: the advantages of networks compared to traditional firms were considered; identified prerequisites for expanding the use of network business organization; analyzed the characteristics of multi-level partnership as a form of network organization of a business. The results of the study can be used in the management systems of network organizations. Their implementation will increase the efficiency of network interaction and the effectiveness of managing the operation and development of business.

***Keywords:** Multi-level partnership, network organization of business, management system*

INTRODUCTION

The development of management methods occurs under the influence of two main factors. Firstly, these are changes in the business itself, as well as new knowledge about human behaviour. Secondly, these are technological advances and their introduction into the practice of managing companies. Based on the variety of working conditions of business structures, their organizational models also differ considerably [1], [2], [3], [4], [5], etc. However, it is customary to distinguish two large classes of organizational structures: hierarchical (vertical) and market (horizontal).

The business needs for more effective management, the increasing variability of its conditions of operation, as well as significant progress in information and communication technologies, have led in recent decades to the formation of a new approach to structuring organizations — the network (the main ideas of the network approach were discussed in an earlier publication of the authors of this article [6]). Network organizations are built on a hybrid model. They combine the features of vertical and horizontal organizational models. In this regard, their further study is required, since as management practice shows, they have great potential for development.

In many ways, this potential is determined by the rapid development of information technology in recent years, which has led to the formation of a specific sector - the digital economy [7], [8], [9], [10], and others. As its development, the authors believe organizational structures will be increasingly used. At the same time, these network organizations themselves will differentiate, depending on their characteristics.

The object of study in this article is one of the forms of network organization - multi-level partnership.

MATERIAL AND METHODOLOGY

The network structures of firms have various forms. Multi-level partnerships as a form of networked business organization. The results obtained in the future can be used to improve the management systems of network organizations, these results are of importance for organizations that use digital platforms in their work.

As materials for analysis, we used the provisions of management theory, those sections that concern the network organization of business, coordination of activities, organizational design, etc. that are in scientific papers, as well as business reviews, analytical reports, information of business publications, and the results of previous author's studies on the use of the network approach in the management of organizations. The results of interviewing representatives of the business community regarding the choice of models of the organizational structure of firms and their effectiveness were also considered.

In preparing the article, standard methods of management and economic research were used: comparative and retrospective analysis, institutional analysis, expert methods, specific methods of organizational design and evaluation of the effectiveness of organizational structures.

THEORY

The idea of maximizing value for owners, based on the network approach, was considered by R. Coase in the Contract Theory of the Firm. This author described the company as a network of relationships between employees, managers and owners. This network was not peer-to-peer. The owners were in a priority position and determined the conditions for the activity of the company, including the choice of development directions by managers. The Stakeholder Theory of R. Freeman was a logical continuation of the concept of R. Coase. The effectiveness of the organization's activities has become determined by the degree of satisfaction of the interests of stakeholders. These interests organize a complex network.

The network is a complex and multidimensional concept. From the standpoint of mathematical modeling (Graph Theory), the network is a system of interconnected nodes. System Analysis from the standpoint of Social Sciences expands the concept of the network. Here the network is a system of connections between social actors (economic, political, legal, cultural, etc.). The specificity of the network organization and its difference from the market and hierarchy is that:

First, network connections are stable. In this way, they differ from market interactions, which are more volatile. Based on the principle of maximizing the benefits of market exchange, economic agents enter into market interaction every time with a new counterparty. And if the choice of counterparty is repeated, then this is determined not by fundamental, but by opportunistic factors. The market of free competition is chaotic (although it is controlled by the "invisible hand," as described by A. Smith). Its robust network connections are like those found in hierarchical organizations.

Secondly, network connections are horizontal. Their formation takes place on a voluntary, contractual basis, without external coercion, based only on the economic principle of profit. In this they resemble market interaction. At the same time, it distinguishes them from the hierarchy, where the subordination of one element of the structure to another is always present.

Thus, the network organization is a hybrid, it combines the features of hierarchy and the market. In our opinion, networks are the result of the convergence of traditional “rigorous” approaches to organizational design. Within the network, there are specific network contracting institutions. Transactions between network members are limited to some rules that only partially follow the general rules. With this approach to the explanation of the phenomenon of the network, the network is a set of economic actors that can be considered both together and separately from each other, but it’s important that they depend on each other. This dependence may consist in restrictions on decision making, resource sharing, joint planning of activities, etc.

So, at the heart of the hybrid form of organization - the network - lies the specific benefits that all its participants derive from such an association. This does not exclude local non-optimal joint actions for individual participants, which is ensured in a global sense - for the entire network (and for a participant local loss is compensated by subsequent gain, and their ratio is such that the total result is positive). The main difficulty in the practical implementation of the network principle of organization is the high transaction costs associated with intranet interaction. The ratio of these costs (traditionally quite significant) to the benefits of participation in the network determined the low popularity of network organizations in business until the last third of the 20th century.

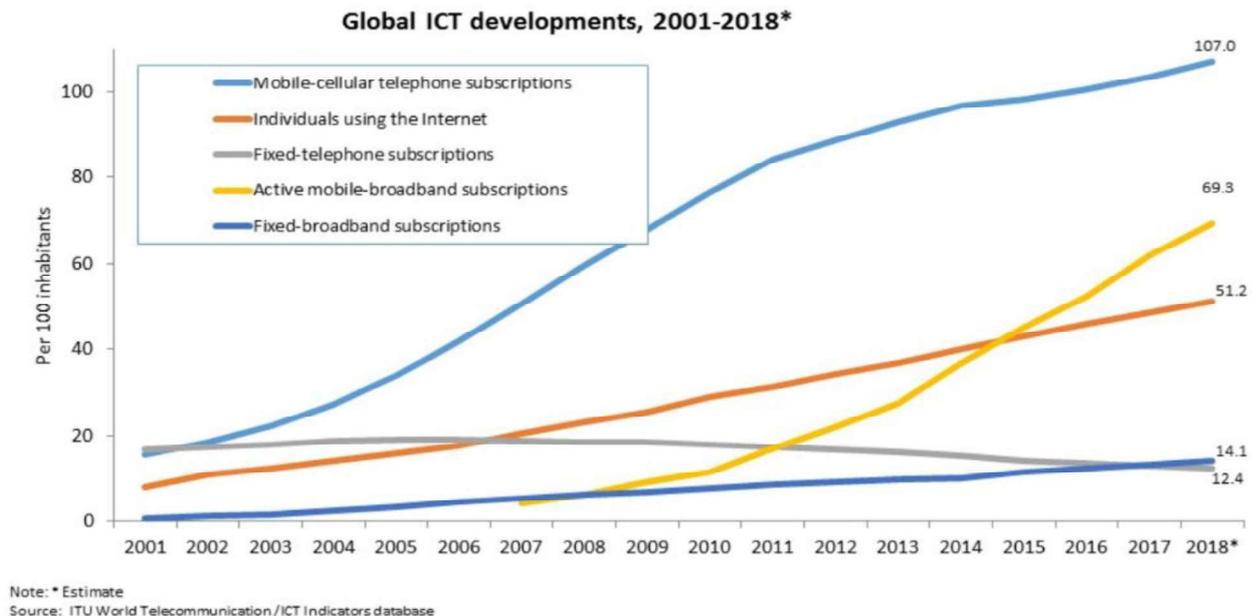


Figure 1. Dynamics of ICT penetration in the world

The revolutionary changes associated with the widespread use of networks occurred after the advent of affordable and cheap information and communication technologies. Their widespread introduction has led to a reduction in transaction costs for networking. The main indicators characterizing the ICT penetration dynamics are shown in Figure 1 (source: <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>). In this regard, network organizations are widespread. As a result, such a phenomenon as “network economy” appeared [11], [12]. The main advantage of the network economy is the possibility of effective coordination of economic activities through the direct exchange of information between its agents. Table 1 illustrates the advantages of a network economy and a networked business organization over today's most common market model.

Table 1. Characteristics of market economy (ME) and network economy (NE)

Sphere	ME	NE
Forms of management and coordination	Market self-regulation and state (hierarchical) regulation and coordination of activities	Coordination of economically equal direct links
Development factors depending on the speed of information dissemination	It works best in an environment with low information permeability of the economic environment	It works best in an environment with a high information permeability of the economic environment
Business methods depending on the use of information	Restrictions on the use of the Internet network for communication with partners, database management and conclusion of trade transactions	Transformation of key business processes with Internet technologies, the acquisition of real benefits through this

RESULTS AND DISCUSSION

In today's world, organizational networks are replacing traditional organizational structures. As a result, there is a blurring of boundaries between enterprises, the traditional contradictions between internal and external partners of the organization, their own and others' resources, large and small enterprises disappear. The creation of network structures covers all industries and functional areas, starting with scientific research and subcontracting networks in the field of production, ending with a franchise network in the field of sales.

The prevalence of the network approach in the management of Russian business is evidenced by the data in Table 2. It lists the top 10 largest (in terms of revenue) Russian private companies, compiled in 2018 by Forbes (source: <https://www.vestifinance.ru/articles/107615>). The condition for inclusion in the rating was compliance with the following conditions: more than 50% of the capital is controlled by private owners, only Russian national companies were considered (subsidiaries of global companies were not included in the rating), official data on revenues in 2017, estimated under IFRS, were used for the rating.

30% of the largest private companies in Russia use network forms of organization of activities. This shows the benefits of networking. According to the authors, with the further development of information and communication technologies and the growth of their penetration, we should expect further wider use of network forms of business organization in Russia.

Table 2. The largest private companies in Russia

Rank	Company	Revenue, billion rubles	Network
1	LUKOIL	5475	–
2	X5 Retail Group	1295	+
3	Surgutneftegaz	1175	–
4	Magnet	1143	+
5	Tatneft	681.2	–
6	Megapolis	655.7	+
7	Euras	631.3	–
8	NLMK	587.1	–
9	NOVATEK	583.2	–
10	RusAl	581.3	–

The analysis showed that the use of network forms of business organization has several information problems, including:

1) the scale of information, the problem of processing large amounts of it, even if the latter is potentially perceived and accessible to users. There is an effect of "information overflow" of the management system;

2) the complexity of the information and the multiplicity of its use, which causes uncertainty. This creates a request for the use of new methods of "stochastic management";

3) ambiguity structuring of information (the distribution of data into categories, the selection of information from the available information that is important in solving specific problems). The volume of selected information should be adequate to the ability of users to realize it. The effect of "individual information overload."

To solve these problems, we recommend using the mixed principle of building a network in a multi-level partnership format. In such a network, layering is an important condition. It allows you to create valuable value chains within the network using both horizontal (strong) and vertical (weak) links. That is, the network is a two-tier. The top level (core) of the network is formed by the parent company. The second level (agents) of the network consists of specialized companies connected by horizontal cooperation. In addition, each of them can be a core for a lower level.

The results of the comparison of the characteristics of single-level and multi-level network partnerships are shown in Table 3.

Table 3. Comparison of one-level and multi-level partnerships

Difference Criterion	One-level partnerships	Multi-level partnerships
The degree of consideration of the interests of all participants of the network partnership	Priority is given to the interests of the customer. The interests of other members of the partnership are not sufficiently taken into account. This creates risks of opportunistic behaviour	There is a consideration of the interests of all participants of cooperation
Objectives of cooperation	Tactical and operational (improving the quality of certain functions and tasks)	Strategic (formation of long-term competitive advantage)

The analysis of practical experience (based on the results of interviewing managers of Russian production companies) showed that when creating a multi-level network partnership, a few problems may arise that are necessary:

- detailed study of the partner company, especially its basic competence;
- determination of the organizational suitability of the partner company, both technologically and socially;
- creating a high level of trust between partners;
- formation of a special cooperation management in order to coordinate the activities of geographically distributed partner companies and establish relationships that are trustworthy between partner companies.

Despite a few advantages of network organizations, in particular multi-level partnerships, the following features should be taken into account when managing them:

- in multi-level partnerships, preference is given to specialization, focusing on core competencies, which may reduce the sustainability of the business when it leaves the network;
- the network principle does not apply to isolated (closed) organizational units, such as venture enterprises, as well as in cases where concentration of resources and power is required due to responsibility and high riskiness of business;
- in networks, the effect on staff loyalty efficiency increases dramatically. There is a strong dependence of business success on human resource management, corporate culture;
- there is a danger of excessive complexity of the structure, as well as uncertainty of the legal conditions not only of membership in it, but also withdrawal from it and a change in the status of network participants;
- there are questions related to the protection of intellectual rights created by network members, which are legally separate firms.

CONCLUSION

Organizational and technological changes led to the formation of a new type of model organization of firms - hybrid. Hybrid models are based on a combination of the traditional market (horizontal) and hierarchical (vertical) interactions, on the network principle of the formation of intra-company relationships. The analysis shows the gradual and accelerating spread of network organizations in various countries of the world, in particular - in Russia. This leads to the formation of a new economic model at the macro level. This model is called a network economy and has a number of fundamental differences from the traditional market model. Network structures of firms have various forms, one of which is a multi-level partnership. Its advantages are determined by the mixed nature of the internal relationships in such a network, the presence of "cores" and "peripheral agents". Also in the study revealed the shortcomings of network forms of organization. The authors recommend using the results of research in management systems of network organizations. Their implementation will increase the efficiency of network interaction and the effectiveness of managing the operation and development of business.

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