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VIRTUAL NETWORKS – MAIN FORM OF THE ORGANIZATIONAL DEVELOPMENT TRANSFORMATION IN GLOBAL ECONOMY

The aim of this paper is to analyze main form of the organizational development transformation in global economy. The organizational development trends in the beginning of 21st century are presented. Networking as main organizational activity of contemporary enterprises is considered.

Key word: globalization, enterprises, transnational companies, transnational banks, small and medium sized enterprises.

Introduction. *The main trend in organizational development* in the recent years is setting up and deployment of inter-company networks. Analysts say that the networks contribute to the organizational flexibility in business practice. There are various opinions on the configuration of the inter-company networks. According to *Castels*, the modern network models originate from the networks in Southeast Asia (Table 1). *Castels* comments on two forms: a multi-directional network model of small and medium-sized enterprises and the licensing-subcontracting model of production under the control of large corporations.

The small and medium-sized enterprises are often under the control of financial and technological dominance of the large corporations. Nevertheless, they often take the initiative on establishing of network relations with a number of big companies and/or other small and medium-sized enterprises. We have examples of such relations not only in Southeast Asia (Taiwan, China, Hong-Cong, Japan), but in Europe, too (Valencia in Spain, Emilia-Romania in Italy) and in North America.

The corporation has changed its model of organization in order to adapt to the conditions of uncertainty and unpredictability arising as a result of the fast economic, political and social changes. The major change includes a transition from vertical bureaucracy to a horizontal corporation. According to *Castels*, the horizontal corporation has some of the following features: organization based on processes and not on tasks; flat hierarchy; team management; measuring the results in view of the consumers' satisfaction; remuneration for the group results achieved; maximizing the contacts with the suppliers and clients; informing, training and requalification of the associates on all levels.

Restructuring of the enterprises in the 70-ies was aimed at cutting down the costs but preserving the outdated organizational structures based on the logic of the model of mass production in the conditions of oligopolistic control on the market. But the new global economy requires that the classical management principle is applied: not only *doing the things right*, but *doing the right things*, too- *P. Drucker*. Network strategies have contributed to the corporation's flexibility but they have failed to solve the problem of its adaptability. The corporation not only has to set up, or participate in, a network, but it has to turn itself into one.

Dynamization of each element of the internal corporate structure is the meaning and purpose of the horizontal corporation model which often expands to decentralization of its units and ensuring of increasing independence for each of them, even allowing them to compete among themselves although within the frames of a common general strategy. The new organizational forms are not a mechanical consequence of the technological change. Some of them have even preceded it. The main obstacle to increasing the corporations' flexibility in global economy was the conservatism of the traditional corporate culture. When the strategy of the corporation becomes global, IT technologies initiate setting up of networks. The ability of the small and medium-sized companies to unite into networks between themselves and with the large corporations has started to depend on the presence of new technologies immediately after the networks scope (if not their daily operations, too) became global. The complexity of the network of strategic alliances, sub-agent contracts and decentralized decision-taking at the large companies would simply be impossible to be managed without the development of computer networks. And due to the mass need for flexible interactive computer management, software has become the fastest developing segment of industry and information business which is to determine the processes of production and management in the future. On the other hand, it is due to the presence of these technologies that networks have become the key to organizational flexibility and business results.

Table 1. Comparative analysis of modern networks prototypes. Networks in Southeast Asia

Country Indexes	Japan	Korea	China (Taiwan, Hong-Cong)
Type of networks	Horizontal networks based on the intermarket connections between the large companies (kigio shudan). Each of these networks has its own source of financing and participates in the competition struggle in all major fields of activity. Vertical networks (keyretsu) set up around a large specialized industrial corporation (kayssha)	The main feature of Korean networks (chaebol) is that all companies in the network are controlled by a central holding company owned by a single person and his family. It has the support by the state-owned banks controlled by the government	Family companies (jiazucie) and intersectoral business networks (jituancie). The companies are family-owned and the supreme value relates to the family and not to the company. When business prospers, the family prospers, too
Network integrator	A trading company (sogo shosha) which is mediator between the suppliers and consumers	The founder family holds tough control appointing family members	Family is a key component of the networks
Participation of SME	Strong participation of SME Pyramidal subcontracting system with many SME	SME play an insignificant role	A large number of independent horizontal networks of SME
Management (work practices)	The management reflects the hierarchical network structure. The large companies offer work for life, salary systems according to seniority and cooperation with the company's trade unions	Authoritarian model. Distinguishing between the labor market of permanent and temporary workers. The trade unions have been subordinated to the state for a long time	Management is strongly centralized and authoritarian. The workers are not expected to show loyalty because their ambition is to start their own business
Market	The network functions as a flexible unit on a competitive market providing as much resource to each member of the network as it deems appropriate. This renders penetration of external companies on the markets difficult	The main part of the contractual relations are internal. The markets are formed by the state and develop in the competitive struggle between the chaebols. Networks of mutual commitments, external to the chaebol, are rarely found. The internal relations in the chaebol depend rather on the network hierarchy than on the cooperation	The family companies communicate by means of sub-contractor agreements and ex-change of investments and securities. The companies specialize in their filed and the families diversify their investments. The intercompany relations are strongly personalized and variable
State	The government directs the development of business by means of consultations on the product lines, export markets, technology and work organization. These directions are supported by large-scale financial and fiscal measures as well subsidies for R&D. The network structure reflects the type of state interference: the financial dependence on the credits approved by the government determines the strategic role of the primary bank; the restrictions and incentives of foreign trade are channeled through the primary company which has a uniting function both for the members of the network and between the network and the state in the person of the Ministry of Foreign Trade and Industry	The evolutionary state has been typical of Korea since the early 60-ies only. It is the state that has created the networks and that is why they are more centralized and authoritarian than those in Japan. To be able to carry out its project, the government closed the local market and undertook a policy of import replacement. After the companies started functioning, it set out the goal of increasing their competitive power and creating conditions for their export-oriented strategy by development of capital-intensive and technological sectors under 5 –year plans worked out by the Council for Economic Development	The evolutionary state has been typical of China since even later – the 80-ies. State support is provided in three main forms: (1) subsidized health care and education, public infrastructure and income redistribution based on a radical agrarian reform; (2) attracting of foreign capital by means of tax benefits and setting up the first export processing zones in the world thus ensuring connections, subcontractor contracts and increasing the quality standards for the companies and workers having come in contact with the foreign companies; (3) vigorous state support to R&D and the technological transfer and distribution

Research aim. The aim of the present research paper is to analyse the main characteristics, principles, advantages and disadvantages of the virtual networking approach application, as main form of the organizational development transformations under the conditions of globalization of economics and development.

Networking. The term of ‘networking’ concerns an organization presuming setting up of a network with its units (enterprises or their business systems) and the links between them to achieve the targets (effectiveness, profit, conquering of a larger market share, entering new markets, etc.) in compliance with the needs and expectations of the partners and the business situation. The network model is equally applicable both to the intra-organizational cooperation at the affiliates and to the integration of the groups within the enterprise and/or to the enterprises cooperation.

The new organizational principles have been experimented for a long time in various sectors and functional spheres. The results of these experiments give grounds to speak of the advantages of the network principle of enterprises’ structure, of the difficulties they are faced with and of the obvious weak points of the entrepreneurial networks (Table 2). The network structures ignore the well-trying organizational and management mechanisms. In order that arising of organizational vacuum is prevented, specific principles are applied, the major ones being the following:

1. *Mutual trust between the entrepreneurs in the network of enterprises; business ethics.*
2. Combination between contractual and informal relations, both existing and being established, between the employees of the partnering companies.
3. *Master power (management’s authority, being formed along with the enterprise’s development).*

Today integration in the production sphere is acquiring new forms presuming radical reorganization of the business activity. The traditional large enterprises are turning into a network of smaller integrated enterprises or affiliates. Networking and applying of network organizational and management structures is an evolutionary way of corporations’ restructuring. The main principles of evolutionary changes include the ambition for preserving the organizations’ identity and adapting thereof to the dynamically changing conditions of the environment.

Table 2. Weak and strong sides of network organizations

Advantages of the network enterprises	Disadvantages of the network enterprises
<ul style="list-style-type: none"> - Adaptability of the enterprise to the changing conditions, quick reaction to the market situation changes. - Concentration of the enterprise’s activity on key sectors of specialization and unique processes. - Significant reduction of costs; rationalization of the structure (and hence, income increase). - Elimination of doubled functions when using qualified work force. - Attracting of the best partners within the network for cooperation. - Attractiveness of the network structures is explained by the very high economic indexes preconditioned by two factors – competency and effectiveness of the organizational network. - Network structures are a perfect school for increasing the competency of the enterprise’s employees because the best functionaries are used to solve the tasks. - Effectiveness of the network enterprises is guaranteed by the optimum rational costs structure. - Networks eliminate doubling of human resource. - Thus the high production and management costs are avoided 	<ul style="list-style-type: none"> -Network models focus on specialization and concentration of key competencies and the modern tendencies of enterprises’ development necessitate the need for orientation towards a multi-aspect general profile qualification. -Network conception violates the organizational principles of segmenting and moduling typical of the autocratic (the economically differentiated) organizational units, e.g., venture companies, factory-in-the-factory or enterprise-in-the-enterprises type enterprises, etc. -Network structures entirely depend on human resource. -Network participants enjoy no material and social support due to the waiver of the classical long-term agreements and customary labor relations. -There is a risk of excessive complicating ensuing, in particular, from the heterogeneity of the participants in the network enterprise, the networks openness, the dynamics of self-organization and its indefiniteness. -Participants in the network structures are motivated by the network mission. Social support has no place in it

The intra-company network organizational-management structure is based on the partners’ mutual trust and their ability for cooperation. Unlike the intra-company structure based on the relations between legally independent enterprises, the links between the affiliates, work groups, departments and project groups of the same enterprise are of crucial importance here. All partners are equal in rights and independent which presumes new understanding of the business system as a self-organizing poly-centered structure, sharply differing from the traditional vertical-hierarchical structures. This thesis is completely reasonable because expansion of the partners’ powers allows for smoothing the hierarchy and extending the scope of control as a result of which there are several decision-taking centers. This means senior management’s waiver of authoritative powers which changes the approach to realization thereof.

Not only the authoritative powers and rights, but the groups uniting the partners around the key tasks or another common goal are decentralized as well. The logic of network organizational structures presumes the presence of vertical and horizontal organizational links and communications as well as removal of various barriers. The network structures combine the clear rules of the game and the free links between the participants in them. The traditional organizational structures are based on detailed control. Unlike them, the network

structures focus their attention on the forms of cooperation and rules of the employees and managers' behavior. Great importance is attached to the commitment of the human resource to the underlying organizational goals.

Virtual networks. Mobility of the resource in the network structures is often compared to virtualization and the network enterprise – to the virtual one. This comparison is valid when in the process of replacement of the old structure some of the physical and legal features of the enterprise are lost. The notion of 'virtual' has been borrowed from the English language and means something perceived in a way other than the realizable or having no physical embodiment. Not only the groups (teams), but whole companies, too, are gradually turning virtual in the modern conditions.

Researches use various terms to name the virtual enterprises: *network enterprises, infinite enterprises, expanded enterprises*. Usually they mean a network of partners (enterprises, organizations, individual teams and people) jointly performing the activity of development, production and sale of certain products. There are a number of definitions of the virtual enterprise as a network organizational form. Yet, taking account of the peculiarities of functioning of such structures, the virtual enterprise may be defined as a temporary cooperation of a network of enterprises (organizations, individual teams and people) having key competencies for the best fulfillment of a market order based on a common information system. The virtual networks classification is shown on Fig. 1.

Virtual enterprises are treated as a changing combination of flexible facilities, resource, highly qualified managers, skilled and experienced contractors, technologies and information. Virtual business organizations are considered multi-functional and numerous inter-company combinations united in one for the purpose of performing a specific market task. When the possibilities for exploiting a market opportunity run out, the pulsating group created by them decomposes and each enterprise can join another group (virtual organization) for solving of another market task.

The purpose of the virtual enterprise is earning a profit by satisfying the consumers' needs faster and better than the potential competitors. Obviously, this goal is inherent in all market-oriented enterprises. But first, the virtual enterprises are oriented to fulfillment of orders of specific clients. And second, the virtual enterprise improves the speed and quality of the orders fulfillment by joining the resources of various partners in a united system.

The virtual forms of organization have a number of key merits: a possibility for the best resources, knowledge and abilities to be chosen and used with less temporary expenses. The following basic competitive advantages of the virtual enterprise ensue from these merits and the network organization itself:

- *Order fulfillment speed.*
- A possibility for cutting down the aggregate expenses.
- A possibility for better satisfying the ordering party's needs.
- A possibility for flexible adaptation to the changing environment.
- A possibility for lowering the barriers to entering on new markets.

Research results. Both the ordinary and the virtual networks are the result of the combination of organizational crisis and new information technologies. It is them that create the new form of structuring as a mark of information global economy - the network enterprise. According to *Castels*, the network enterprise is that specific form of an enterprise whose system of means comprises the inter-crossing of segments of independent systems of goals. Thus the components of the network are both independent and interdependent at the same time from the point of view of the network structure and may be a part of other networks or other systems of means focused on other goals. Then the effectiveness of a network will depend on two major qualities: its consistency, that is, its structural ability to ensure communication between its components, and its coordination, that is, the degree of compliance between the goals of the network and those of its comprising elements.

Conclusions. *Why has the network enterprise turned into the organizational form of information global economy?* Because, on the one hand, the enterprise is effective, and on the other hand, this effectiveness complies with the features of information economy: prospering organizations are those capable of generating knowledge and processing information effectively; of adapting to the changing environment of global economy; of being flexible enough to transform their means in compliance with the speed of goals changing under the influence of the swift cultural, technological and institutional changes, and of innovating, since innovation is becoming the major competitive weapon. For the first time in history the chief unit of the economic organization is not a subject but a network comprising a number of subjects and organizations constantly changing in the process of networks adaptation to the supporting environments and market structures.

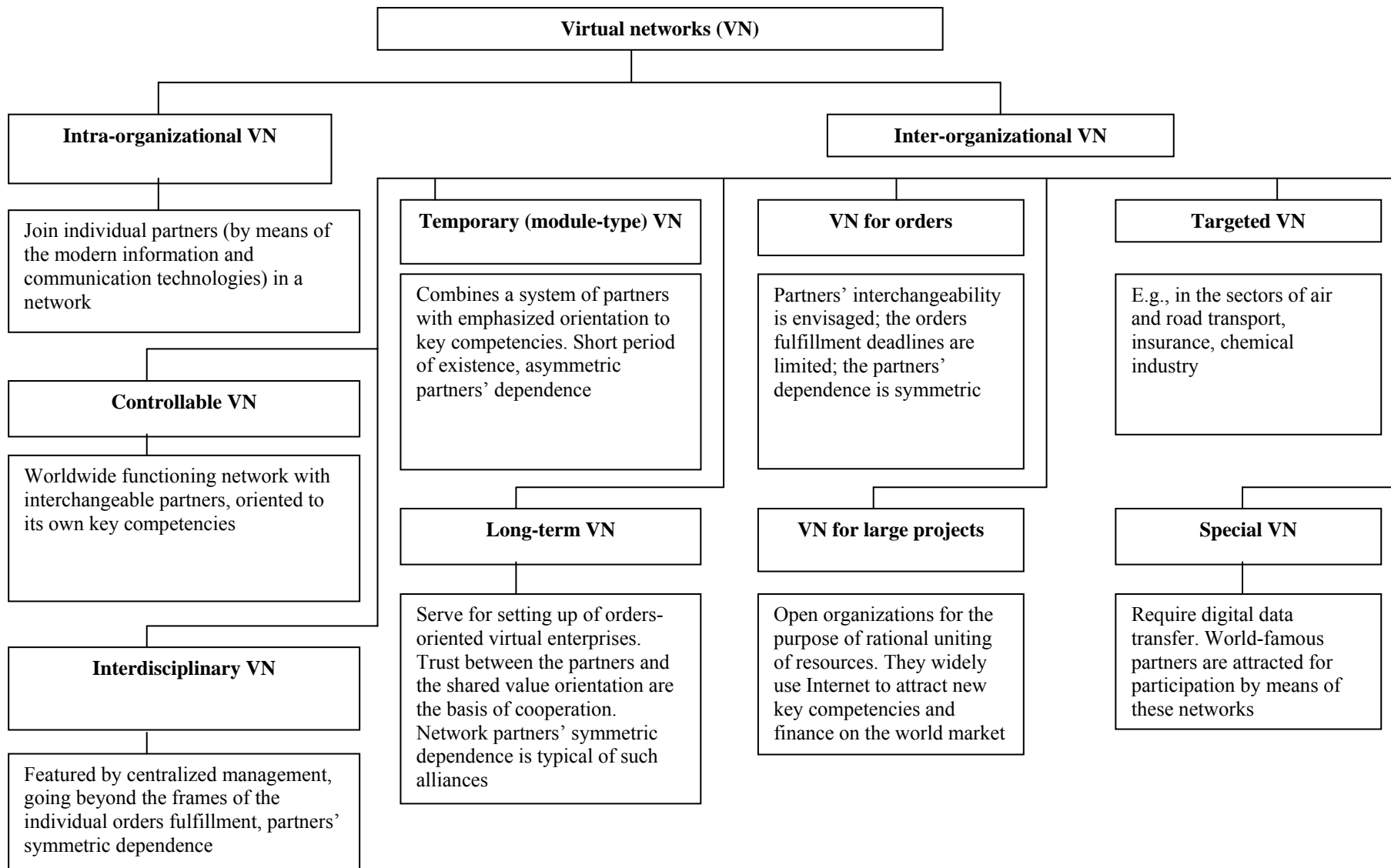


Fig. 1. Virtual networks classification

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