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Adjustment of corporate organizational structure to the demands of competition in fast changing global economy

The main thesis of the following article states that, due to the fact that competitive strategy is the determinant of the organizational structure changes, global business networks (GBN) are created in the course of adjustments to the requirements of multinational corporations to compete in the rapidly changing economy. GBN is a model created in the course of search for corporate organizational structure adequate to the challenges of globalization. The purpose of this article is to identify theoretical concepts at the source of creative compilation of a new model. The author analyzed the characteristics of processual, virtual, learning, intelligent, fractal, and modular organization as trends in which transnational corporations saw a number of valuable elements and through their flexible merging received "a new quality". The developmental strategy of openness, convergence within organization based on knowledge transfer, cooperation based on partnership and trust, and strategic synergy are the pillars of global network.

Dostosowanie struktur organizacyjnych korporacji do wymogów konkurowania w dynamicznie zmieniającej się gospodarce światowej

Tezą niniejszego artykułu jest, że z uwagi na fakt, iż strategia konkurencyjna jest determinantą zmian struktur organizacyjnych, to w toku dostosowań korporacji transnarodowych do wymogów konkurowania w dynamicznie zmieniającej się gospodarce konieczne jest kreowanie globalnych sieci biznesowych (GSB). GSB jest modelem powstałym w toku poszukiwań przez korporacje konstrukcji organizacyjnej adekwatnej do wyzwań globalizacji. Celem artykułu jest wskazanie koncepcji teoretycznych stanowiących źródła kreatywnej kompilacji nowego modelu. Dokonano zatem analizy cech organizacji procesowej, wirtualnej, uczącej się, inteligentnej, fraktalnej, modularnej jako nurtów, w których korporacje transnarodowe dostrzegły wiele cennych elementów, a poprzez ich elastyczne scalenie uzyskały „nową jakość". Filary globalnej sieci stanowią: strategia otwartości prorozwojowej, konwergencja oparta na wewnątrzorganizacyjnym dzieleniu się wiedzą, współpraca oparta na partnerstwie i zaufaniu oraz synergia strategiczna.

Keywords: transnational corporations, international business, TNC, global business network, network formation and analysis, competitiveness, transactional relationships

Klasyfikacja JEL: F23, D85, L14, M21, L22

Introduction

The acceleration of globalization processes and liberalization of global economy directly result in "flattening" of modern world [Fung, Fung, Wind, 2008, pp. 17–20]. The consequence for business is a need to adapt a business model to the new requirements of complexity of actions, corporate model of management, congruence in the perception of environmental challenges and creativity as a form of gaining advantages of qualitative nature. Transnational corporations constantly make efforts to improve their competitiveness, because they are aware of the need to find a model of organizational structures corresponding to the requirements to compete in the rapidly changing global economy. The main difficulty they faced was the necessity to combine internal determinants and constantly changing environmental conditions and requirements. The essence of the changes was the combination of "school resources and competences" – the internal improvement, and "school of resource leverage" – a skill to capitalize on the potential of the surroundings. As a result, the structures of modern transnational corporations reflect creative combination of the elements of alternative approaches, f.e. BPR – *Business Process Reengineering* [Hammer, Champy, 1996, pp. 70–94], LM – *Lean Management* [Womack, Jones, Roos, 1994], TBM – *Time Based Management*.

The article advances the thesis that competitive strategy is the determinant of the changes in organizational structure [Chandler, 1962, pp. 1–5]. The model formed in the course of corporate search for organizational structure most appropriate to the competitive demands of a fast changing global economy is the model of global business network [Rosińska-Bukowska, 2012, pp. 165–168]. GBN is a creative combination of processual, virtual, learning, intelligent organization, but also of the network in a traditional form. The essence of building strategic international competitiveness by transnational corporations seems to be lying in recognition of the valuable elements in numerous concepts and their flexible merging, which enables matching functional models to specific environmental conditions.

1. Basic concepts used in modern corporate model

The following section of the article aims to prove that transnational corporations have recognized the possibility of using formerly known and often criticized concepts (BPR, TBM, and LM) for the creation of an adequate organizational form for the implementation of their competitive strategy. With P. Drucker's concept as the starting point, which states that the organizational structure is the result of application of the model of adjusting organization to the market situation [Drucker, 1988, pp. 242–266], it seems that corporations have not decided to search for ready

patterns for implementation, but they create a "new" structural model, appropriate to their strategy. It is the result of creative combination of various elements of even contrary approaches. The search for a target model allows researchers to arrive at new types of structures: virtual, learning, intelligent, fractal, modular, and network organization. The analysis of the strongest pillars of corporate organizational structures may conclude in the assumption, that they can be regarded as a source for their organizational models, and that they show the evolution path for organizational systems.

The consequence of adaptation to the challenges of advancing globalization was the observation of the need to moderate the structures and ultimately abandon traditional division into sections (however, the definition is still in use) and their eventual replacement with processual units. The change was mainly based on restructuring, which activated the internal cooperation of the members of the organization while carrying particular tasks. It was a new form of *reengineering* – *X-Engineering*, namely, efficient design of inter-organizational processes in order to reduce transaction costs. This concept meant the long-term management of the process and successive changes in the areas of hard and soft resources through organizing resources, defining key areas of competence, and reconfiguration of the chain of values [Horvath, Mayer, 2002, pp. 48–54]. This model is the basis for the delegation of powers within a certain scope, and serves as stimulation of individual responsibilities. Its purpose being constant refining of particular areas, including the rationalization, which means the abandonment of areas notorious for inefficiency, as in the example *reengineering* at Siemens [Rosińska-Bukowska, 2011, pp. 142–144]. An important issue is the rejection of the traditional functional orientation to meet the needs of specific customer groups – shift from a focus on the effects of the action, that is, added value, which is "verified" by customer acceptance. The traditional model of "omniscient control center" is replaced with an inclusion and participation approach. It allows the organization to become more dynamic.

TBM is another concept adapted by the corporations in their organizational model [Zimniewicz, 2003, pp. 96–105]. It is particularly important from the perspective of theory, that time is a crucial parameter in the process of building strategic international competitiveness. On one hand, customers are sensitive to time and, therefore, it's almost inexhaustible source of competitive advantage (shortening production processes, meeting deadlines, creating new goods and services as a consequence of search for innovative solutions, e.g. time saving etc. [Maige, Muller, 1995, p. 13]. On the other hand – thinking in terms of time for the long-term development of all areas of the organization gives it a strategic nature.

TBM concept essentially means focusing on processes and organizational structure. Processes generate added value for the customer, and the task for organizational structures is to stimulate its continuous improvement [Hässig, 1994, pp. 250–262]. The company becomes a system of processes, a bunch of team-solved

tasks. There is no conflict between the processes and the organizational structure, as they are interdependent elements. Meanwhile, there is an indication of the need to standardize and improve the basic elements of the process within the organization, as a result of comparing their performance with best practices – internal *benchmarking*. It winds that spiral by improving the quality of processes through striving to continually create added value to the existing standard by the leaders of the process – the units of the system, which are centers of competence in a specific area. Management oriented on time value should not then be perceived as a technical and technological procedure, but in terms of model for creation of organization knowledge.

The essence of the LM idea [Gendo, Konschak, 1999, pp. 53–261] in the process of rebuilding of corporate systems seems to be an emphasis on simplifying organizational structures (reducing the number of management levels) in order to improve the efficiency of information flow, thus replacing the hierarchical thinking with collaboration within problem groups (decentralization of operational and tactical decision). The key, however, is that the whole organization is affected by the changes, which means accepting them as strategic thinking [Hirzel, 1993, pp. 73–77]. The particular importance is given to the efforts leading to combining the significance of collective work (problem groups – product-oriented, regional) with the awareness of personal responsibility of individual participants for the overall system efficiency, through their constant contribution to the creation of added value.

Corporations, then, while seeking for the target form, explored a number of sources. They focused on finding a model to maximize satisfaction of a "global" customer by improving the quality of processes. Global client, however, was seen as a very, very different individual who required a custom approach. Thus, the result of the search was the occurrence of various types of virtual structures: learning, intelligent, fractal, modular, and network.

The concept of virtualization of organizations [Dawidow, Malone, 1998] is the result of new communications capabilities, which enable inclusion of new subjects in the remotest places to the structures of the organization. The system of relations is based on the individual competence of the participants, who integrate along common chain of values, while remaining formally independent elements. The "integrator" is the central figure, who is the bonding element for the participants of a *joint venture*. He is the one who controls the activities of the partners. To a large extent, the organization is based on mutual trust between the partners. Verified relationships are often a test for a possible extension of cooperation. The corporations which applied this model, build their systems as product and geographic frameworks, giving relative freedom to the participating individuals. It is vital to realize the interdependence of members of the system and that there is no requirement of strict codification of activities and hierarchical promotion methods to promote for the sake of self-organization.

An important supplement to virtualization of corporate structures is a model of a learning organization, in which knowledge and continuous improvement processes are the key to extraordinary results [Fahey, 1999, pp. 65–85]. Learning organization is a system of "communicating vessels" in which particular elements constantly obtain new competences, and the organizational structure is a conveyor belt which enables rapid dissemination in their internal structures (internalization of knowledge). Particular authors examine what determines the effectiveness of the implementation of knowledge, and also the effectiveness of "correlation" of strategy – structure. P. Senge emphasizes the issue of adaptation process associated with learning to find new solutions [Senge, 1998, pp. 26–27]. A. Zaliwski writes about the need to implement the knowledge gained in products, processes, and organizational structures and practices [Zaliwski, 2000, p. 28]. Cz. Sikorski draws attention to the elements that can arrest the development, despite the adoption of an appropriate model, such as routine behavior and stereotypes [Sikorski, 2000, p. 162]. Others highlighted the need to correlate the process of generating knowledge of appropriate systems to encourage members of the organization to participate [Grudzewski, Hejduk, 2002, p. 214]. K. Perechuda draws attention to the efficiency of the internalization of knowledge, that is, the mechanism of knowledge sharing within the organization [Perechuda, 1998, p. 69]. To conclude the above deliberations about the model of learning organization, it might be said, that an application of even the best solution on its own is not a sufficient condition to obtain adequate results. The particular emphasis should be put on the necessity of correlation between the potential, which creates the conditioning for strategy, and formula of realization that presents its outside form, namely, organizational structure.

The next base model, which is widely used by corporations in the process of building their structures, is the concept of intelligent organization [Quinn, 1992]. Such organization is characterized by a kind of "innate" intelligence, which makes it a self-improving system. Members using such model of corporation undertake a variety of activities to enrich their knowledge and skills. The organization is characterized by a "higher than average activity" of resources, which means that the flow of knowledge inside the organization is not limited to an efficient transmission, but in the course of the flow there occurs a continuous enrichment. A dynamic character is an immanent feature of intelligent system. Overlapping of activities of individual members within the system causes additional synergies – multidimensional processing and configuration of knowledge. This is the concept of participatory model in which the parent corporation is responsible for creating an interactive inner learning environment, and to draw participants' attention to the contextuality of knowledge and the importance of its skillful use. The role of the control unit is also accumulation of appropriate resources: economic and intellectual – competences, people, institutional preparation [Brooking, 1998, pp. 4–5].

The essence of the models, which recognize a success-prone concept of the "intelligence" of the organization, is appreciation of the institutional capital of the organization. Entities capable of independent operating on the market decide to give up a part of their sovereignty, because they see potential synergic benefits in correlation of knowledge with appropriate organizational culture and the power of the system. Safe operation of the system (warning about the dangers and unusual situations) allows a continuous undermining of the current way of thinking and recognition of present rules and norms as a fast devaluating standard, and thus the urge for its enrichment. The organization tolerates and even cultivates the culture of diversity and exposition of self-esteem. At the same time it applies the idea of collective action as the best formula for the improvement of existing solutions. They also promote partnerships within the organization, and constructive partnership with external cooperators. Intelligent organization does not outline any proper boundaries between "inside" and "outside". It often lacks clearly defined elements of organizational structure. However, this model has an important bond – an organizational culture based on the conscious need of introducing the idea of sustainable development. In case of corporation seen as intelligent organization, its structure forms a system of almost autonomous, "self-improving" units clustered around a "future project", not necessarily based on formal agreements.

Another useful approach to the analysis of corporate structures is the concept of fractal organization [Hopej, 2001, p. 9]. The learning process starts a chain of changes in the system, the ability of immediate adaption on the basis of information "encoded" in each fragment in the previous stage. Fractals are self-similar, which means each of them provides certain services and has a similar internal structure, while being an autonomous unit [Wernecke, 1999, p. 101]. However, despite the fact that they are located in a parent organization, they are not identical because they are not merely a function of the internal environment, but also external, in which the individuals operate. Fractals are characterized by: vitality, dynamism, self-restructuring, ability to self-navigate, self-management, and self-guidance. Owing to the intelligence of its members, the organization can duplicate "achievements" without starting the organizational mechanism (central control). Thanks to the accelerated implementation of the simplified organizational processes as standards, internal feedback between fractals initiate the mechanism of permanent self-regulation in the system. One of the characteristics of fractal structure is decentralization of power and responsibility, which reduces management to creating atmosphere for activity: determining the target space, directing the action, control, ensuring smooth implementation of various ideas.

Modularization is a concept similar to fractal model [Picot, Reichwald, Wigand, 1996, p. 231]. Modules are centers of competence, the essence of which is generating knowledge. It establishes minimum standard around which we can create insular solutions (also for specialized market niches). These can take the

form of structures: manufacturing, conceptual, and marketing. Modularization ensures the transparency of a complex system and improves its flexibility. The authorizations to make decisions are located near the spot where key knowledge is created. In practice of corporate functioning, this means formation of divisional structures (multi-level specialization) of the following types: geographical, product, or modular (homogeneous group of buyers). A key assumption in modularization is to organize the entire process in time and space and to introduce the idea of transparency of its implementation in individual cells. The central element, around which a modular structure is built, is a global client, so the concept perfectly fits the needs of corporations, that, by definition, operate in global business space. Modules are a response to the diversity of manners in which the special needs are approached in different parts of global market. At the same time the model emphasizes the need for cooperation in order to achieve international competitiveness.

In conclusion, the above section aimed at demonstrating, that in each of the mentioned models, one can find valuable tips on how to improve the functioning of the company. Corporations have recognized this potential and gathered valuable insights from multiple sources, which led to building an adequate structure able to meet new challenges – a model of global business network.

2. The concept of a global business network as a mature network organization

Model of a mature network organization connects all previously mentioned ideas into one organizational system. Such network organization does not set out the limits of cooperation, neither in the sense of the object, nor action, or their location in time and space. Actually, we are not talking about merging any entities (companies and institutions), but the creation of networks of bonds and contacts, in a way, over these entities [Drucker, 1988, pp. 242–266]. These bonds are formed on the basis of diverse resources of numerous partners, characterized by spatial dispersion and heterogeneous nature of the organization. Their willingness for a strategic (long-term) cooperation is paramount. It is development based on the creation of added value as a result of multi-directional joint activities. This is not necessarily a declaration of formal networking. The proprietary relationships established in due course mark only a minimum area for agreement, and the scope of joint activities usually go beyond formally declared integration. There are four pillars characterizing modern network organization: strategy of pro-developmental openness – network building, convergence of entities based on intra-organizational system of knowledge sharing, the idea of cooperation based on partnership and trust, and finally, strategic synergies.

The strategy of pro-developmental openness means that the foundation for the creation and the development of links in the network is the ability to handle a multi-level cooperation, even with the existing competitors. This requires a continuous development of the network, hence the "overgrowing" of the core with successive layers of participating parties. Thus, the organizational and institutional capital of corporations is built. The network is not task-oriented, but focuses on competence, which determines its strategic nature. This, in turn, means continuous improvement of specific areas of competence, the introduction of new technological and organizational solutions, that is, developing innovative capital. The openness of the network additionally leads to a continuous external pressure on the members of the network – the winding of a quality spiral. The battle for market share becomes a key factor. The market means a global client – the network tends to get maximum share in the global market. The competition between the participants is reduced to specialized areas of activity, which is associated with the leadership of specific units of the system in specific segments (the centers of competence within the network). Individual members of the network specialize in providing a particular group of goods and services within the offer, and at the same time they make the general requirements "exorbitant".

Convergence of participating entities is seen as becoming similar to each other as a result of co-existence, that is, growing up within the organization. This also causes the effect of "accelerated catching up" to the highest standards [Solow, 1956, pp. 65–94]. As a result of the creation of appropriate and similar conditions for all members of the network, the participating entities acquire similar features over time and become isomorphic [DiMaggio, Powell, 1991, pp. 63–82]. In this sense, the network contributes to the universalization of certain values, somehow setting minimum standards of behavior and activities. Standardization does not mean blocking own initiative from the parties, provided that the changes are an added value to the standard rather than lowering the quality of service. Convergence thus results in the setting of certain boundaries for potential new members. Entering the network is determined by competence and has a complementary foundation, which means the need to "fit" in the chain of value creation.

The idea of cooperation based on partnership is a recognition of trust as the basis for a relationship. It allows to accelerate the circulation of knowledge within the organization (implementation of solutions without prior testing), while protecting it against accidental "leak" out of the system. This does not exclude formal agreements, but it highlights the importance of will to cooperate and interpersonal relationships [Håkansson, Johanson, 1993, pp. 459–467]. Each member of the organizational system, regardless of the position within the structure, must have a sense of satisfaction from participating in the network. This means seeing one's status as improved in comparison to the situation prior to entering the net-

work.Voluntary and partnership nature of the relations within the network, which does not require a formal character of bonds, facilitates the management of this complex system. The key assumption is, however, the adoption of common principles from organizational culture. The partnership means relying on the interdependence and mutuality of relations, without the necessity of establishing hierarchical structures. There are centers of competence within the network, which determine the rhythm of development, serving as control units. Type of relation determines one's state of knowledge. The partnership must reflect the right of each member of the network to have access to a full range of knowledge, thereby knowledge becomes a quasi-public good within the network. Equality in the access to knowledge for all levels becomes a "strategic weapon" of the organization. Hierarchical model disrupts the flow of information, therefore the consequence of the partnership is the flattening of organizational structures. It should be noted, however, that the type of relationship between the participants is also affected by the time factor. Cooperating parties typically create a core of the network, which is prominent in terms of competence, and it also winds the spiral of quality. The recruited members must "earn" the full participation, including the trust to be "admitted" to the full knowledge. Entities included in the network must prove the ability to fulfill the obligations, also the ones resulting from the organizational culture, so that their inclusion does not disrupt the functioning of the network as a whole and does not incur risk of cohesion. The entity, whose reputation is questionable, despite the technical capacity to meet the criteria, should not have access to the network – a negative selection, that is, rejection of the "partners with a flaw". Full participation in a network system requires gaining a full trust from the network. Therefore, the acquired element not only must bring specific skills to the network, which in the opinion of the other participants are a valuable asset, but they also have to guarantee a partner relation.

The synergism of action is a type of organic effect, which results from the use of organized teamwork – cooperation combined with synchronization. Joint action gives better results, as individual participants complement each other. Thus, there is an excess in benefits per member of the network, compared to the effect which can be achieved if each of the participants operate independently. The effect of synergy is also the ability to gain added value as a result of "processing" the seemingly insignificant and isolated information. The substantive value of the information may be insignificant in the area of origin, however, in the machinery of the network it obtains a new dimension. The data combined in an appropriate manner provides an opportunity to see the conception of an innovative solution. Events from remote areas, often seemingly unrelated, may form a logical sequence in the course of "brainstorming". A weak separate stimulus, considered a minor part of the activity of a given party, upon entering other fields and being associa-

ted with operating factors, can cause a rapid increase in efficiency or begin the process of innovation. The sign of synergy is the rise of innovation as a result of the use of concentrated energy of particular members of the network in their areas of competence. The energy is not wasted in other areas. The result of the synergic action is usually the financial effect, that is, the possibility of finding cheaper sources of funding. There is also a marketing effect, which means promotion of the activities of the entity under a well-known brand of the network. Creative approach to management means combining the effect of synergy with the preservation of market reflex, which seems to be a key feature of the network. This pillar, then, is referred to as strategic synergy.

In conclusion, a mature network organization must reconcile the stability of operation with the continuous development, so there is usually a core of the network, network context, its further environment and macro-environment [Achrol, Reve, Stern, 1993]. The network provides a support facility for its members. It usually consists of internally consistent, but different modules. The exchange of information between modules is obviously much less frequent than inside them. The information transferred to the outside of the module (in this case, outside the module, but inside the network) is the refined effect of "inter-modular" brainstorming and it is a final product, ready for adaptation – the effect of the team's creative competence process. Interactions between the members of the network provide a feedback. In a smart organization, the valuable comments from an internal client allow a continuous improvement of the flow of knowledge, causing a multiplier effect. To a large extent, the structure of the links is determined by the informal relations, which are not directly related to the bonds of capital, and thus the organization. There are two types of relations within the network: related to ownership (corporate, usually resulting from shareholding) and strategic, or long-term, but not necessarily based on the possession (contractual, administrative), such as strategic alliances, joint ventures. In the third layer there are co-operative relations – short-term *ad hoc* agreements for outsourcing, signed with the entities outside the network, and various links with institutions within a vast scope of macro-environment of the company.

Conclusion

The deliberations concerning models of organization structures in this article lead to the conclusion that none of the theoretical structures is used by modern corporations in its pure form. Due to the fact that the global network of business presented here contains elements taken from other models, it seems to meet the basic strategic parameters of corporate management systems. The following features are the result of a creative compilation of familiar models:

- strategic fusion of selected entities bound with mutual trust, not necessarily declared in a formal legal act;
- adaptation of the focus on effectiveness, which is characterized by minimizing costs of acquiring new solutions, by means of internal cooperation (an accelerated adaptation of model solutions in case of standard operations within all areas in the organization);
- focus on long-term, evolutionary development based on "synergic innovations", that is, generated as added value of coopetition (constant review and modification of standards);
- simplification of procedures and "flattening" of the organizational structure by means of changing the hierarchy of the control centers (processes, regions);
- creation of a common concept of knowledge management (systems of knowledge sharing and enhancement), for winding the innovation spiral within the organization;
- flexibility and openness to changes as a method of adjustment to the unstable external environment.

Global network in this perspective forms an organizational structure suitable to the demands of globalization. The structure enables transnational corporations to be effective in their competitive strategies.

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