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New Approach to International Competitiveness of Multi-layer Enterprises. A Reference to Macroeconomic Models for the Assessment of Competitiveness as a Benchmark

Abstract: The author of this paper has demonstrated that in the period of the ongoing globalization new challenges regarding the creation of competitiveness have appeared. The purpose of this paper is to highlight the need for a new look at the issues of international competitiveness in the era of globalization and the necessity to focus efforts on creating a competitive system which results from actions at the micro-, meso-, macro- and meta-economical levels. The author has presented the concept of systemic competiveness as a new approach to the assessment of international competitiveness of multi-layer enterprises. The author has tried to express that it is the most important challenge for all kinds of participants on the global market, since, for each of them, the determinants of the surrounding environment are both new and the same. The paper is divided into four substantial parts and also includes an introduction and a summary. The first part of the article includes a reflection on the current challenges in the globalization process and requirements for international competitiveness in the era of corporate globalization – the current level in a developing of globalization process. The second part includes the theoretical concepts of competitiveness in compound organizations according to five concepts of international competitiveness. In the subsequent part, the author refers to a concept of five layers of the capital of organizations, which constitute pillars of the creation of competitiveness in the current economy, especially in multi-layer enterprises. In the final part of article the author has shown the general assumptions of the concept of systemic coopetitiveness.

Keywords: competitiveness, cooperation, international business, enterprises

JEL: F23, M14, D85, L20
1. Introduction

The topic of competitiveness was included into public debate with the acceleration of globalization processes. Nowadays, all kinds of organizations attempt to win the race for the title of the most competitive organization in the neighbourhood. Actually, competitiveness has been incorporated into strategies and restructuring programmes in most organizations. Competitiveness is the ability to provide high and rising levels of standards of products and services, which allow all members of a business society (business network) to not only survive, but also benefit from the level of prosperity generated by the whole system. The essence of the issue is the level of productivity of the business society, but, in addition, competitive firms have to be sustainable – meeting the needs of the present generation without compromising the ability to meet the needs of the future generations – an interpretation presented by the World Economic Forum (World Economic Forum, 2014; 2015). It may make us rethink the current approach to the analyses of international competitiveness. The interdependence of various aspects of the business and the indispensability of a complex approach seems to have finally been discerned as unavoidable. As a result, the concept of stakeholders appeared in the business system which must be sustainable and well-balanced. The concept of international entrepreneurship is becoming more and more important in the analysis of competitiveness (Wach, 2015: 9–24). This concept combines economic aspects of competitiveness and other elements of international business environment. One of the key factors of competitiveness of modern enterprises is that an organization is able to fully discover and use the power of its own multilevel capital (systemic competitiveness).

The purpose of this paper is to highlight the need for a new look at the issues of international competitiveness of multilevel enterprises. The author highlighted that enterprises should focus their efforts on creating a comprehensive system for improving competitiveness, which would be able to absorb impulses from actions at the micro-, meso-, macro- and meta-economical levels (at the same time). The author has presented the concept of systemic competitiveness and has attempted to express that the most important challenge for all participants of the global market is to understand the essences of changes themselves. The new concept of competitiveness must apply to all areas of an organization’s capital for the target model of shaping competition for subjects, who are seeking long-term competitive position, and want to meet the demands of a changing global environment. It means accepting that the economic capital is the necessary base, but only by using the intellectual capital can the enterprises still develop and appoint new added values over standards – this shows they can still be competitive.

In this paper, the author has discussed the appearance of new challenges regarding the creation of competitiveness in the period of ongoing globalization.
These challenges stand against all types of entities – including big businesses (transnational corporations). Consequently, it is reasonable to present the basic assumptions of the general concept of international competitiveness adapted to the challenges of modern knowledge-based economy. This model should be perfected until it includes elements that contain a widely perceived knowledge from the socio-economic perspective as the most important factor of growth (Nelson, Winter, 1982). For this purpose, the author of this study conducted a critical analysis of famous models of international competitiveness and attempted to identify the basics which any organization wanting to meet the demands of the changing global environment should be based upon. The author has emphasized that the concept of competitiveness adjusted to new challenges must apply to all areas of capital of a given organization. A comprehensive analysis of all layers of these capitals is unavoidable for obtaining a continuous and efficient improvement of competitiveness. The challenge is to shape international competitiveness when facing a crisis, constant changes, or requirements to combine competition with cooperation – therefore, organizations must look for a suitable coopetitive model of development. The author has concluded that coopetition is the essence of the concept of systemic competitiveness. The author attempts to raise awareness of the concept being based on cooperation between competitors (including business competitors) hoping to achieve mutually beneficial results and solve problems.

The research hypothesis, developed in prior theoretical review, states: only enterprises which are focused on creating a comprehensive system for improving competitiveness, able to absorb at the same time impulses from actions at the micro-, meso-, macro- and meta-economical levels, are prepared to be competitive in the new era of the corporation globalisation. This concept combines economic aspects of competitiveness and other elements of international business environment. Modern enterprises should create systemic competitiveness based on own multilevel capital. The paper refers to the scientific problem of international competitiveness of multi-layer enterprises, but it focuses not only on microeconomic dimension of competitiveness but also on: mesoeconomic competitiveness (sectoral perspective), macroeconomic competitiveness (country level) and meta-economic competitiveness (socio-culture perspective). These are used in the new approach to the assessment of international competitiveness of enterprises. This approach isn’t limited to the microeconomic perspective. The author made an effort to include relationships between different levels of competitiveness, which are its important pillars – the concept of systemic competitiveness.

This article has been divided into four parts and it also contains an introduction and a summary. The first part of the article is the introduction. The second part includes a reflection on the current challenges of the globalization process and requirements of international competitiveness in the era of globalization. The third part includes the theoretical concepts of competitiveness in compound or-
organizations, according to the five concepts of international competitiveness: the World Economic Forum concept, the Business Environment Group concept, the International Institute for Management Development concept, the model by W. Bienkowski and the model by K. Esser, W. Hildebrand, D. Messner and J. Meyer-Stamer. In the subsequent part, the author refers to a concept of five levels of an organization’s capital, which are pillars of the creation of competitiveness in the current economy. In the final part of the article, the author has shown the general assumptions of the concept of the target model of competition for subjects who are seeking long-term competitive position and want to meet the demands of a changing global environment.

2. The requirements of international competitiveness in the 21st century

In the 21st century, the global economy has undergone dynamic changes. This resulted in new challenges for companies – requiring the combination of internationalization, integration, entrepreneurship, innovation and sustainable development (Frankenberger, Weiblen, Gassmann, 2013; Hagen, Denicolai, Zuchella, 2014; Rosińska-Bukowska, 2016: 5–13).

The thesis presented is that in a period of deepening globalization and liberalization, building competitiveness, in essence, means confronting competition throughout the global market. This requires treating competition as a dynamic phenomenon. Competitiveness is associated with the continuous building of competitive advantage – the search for its sources, assessing the significance of market position and the potential of existing resources for obtaining competitiveness and, finally, consolidating it. The total amount of resources results from the current position, which is the location of the surrounding structures and constitutes the competitive capital, which, in turn, determines the choice of a competitive strategy. These resources include the measurable values of market and financial capital as well as the almost immeasurable intellectual capital, including human, organizational and institutional capital (Rosińska-Bukowska, 2012: 106–108). The analysis of the surrounding environment should thus encourage particular subjects to reinforce the foundations of the competitive potential that will allow them to systematically maintain specific advantages of stability and, as a result, improve competitiveness on the long run. Competitiveness is thus the need to build a competitive system, allowing for the continuous adaptation to dynamic changes.

497–523; Dzikowska, Gorynia, Jankowska, 2016: 101–130) allows us to consider competitiveness in systematic terms as a compound system of four elements:

1) resources – the potential of competitiveness (competitive ability);
2) instruments and tactics available and used to multiply the potential of competitiveness – the ability to compete (on this level);
3) values which stand out in relation to other competitors – a competitive advantage (added value);
4) strong, stable position in a particular area – a long-term competitive position (a dynamic competitiveness).

The competitiveness building model, in any modern organization, should be based on the full analysis of the changing global environment, including the diagnosis of economic and intellectual capital. Contemporary companies should rely on the creation of value through utilization of intangible assets such as: the ability to learn, the accumulation of experience and skills, information and current knowledge from one’s own business network and from other global relationships. This way all members of organizations become participants of ongoing knowledge development – the result is the spillover effect, the exploration of known areas in order to obtain new knowledge (Koschatzky, 2001: 3–23; Kaplan, Norton, 2004: 43–44). As a consequence, the competitiveness system consists of four related types of competitiveness:

1) competitive base – gathered resources;
2) operational competitiveness – specific, “technical” skills;
3) competence-based competitiveness – permanent strengthening of core capabilities;
4) systemic approach to creation of competitiveness – the ability to meet high-quality standards, and even the creation of added value.

The concept of systemic competitiveness appears to be the most demanding challenge of modern times. It is, therefore, a challenge for all participants of global economy who intend to meet the growing demands of well-balanced growth.

3. The basic requirements of the most famous models of international competitiveness

The analysis of the most famous models of international competitiveness (Radło, 2008: 3–15; Rosińska-Bukowska, 2012: 196–202; Aiginger, Vogel, 2015: 497–523; Sölvell, 2015: 471–481) includes five models of the examination of international economic competitiveness, which were constructed for an evaluation of international competitiveness of national economies. The analysis is based on the following models: the World Economic Forum model, the Business Environment Group
model, the International Institute for Management Development model, the model by W. Bienkowski and the model by K. Esser, W. Hildebrand, D. Messner and J. Meyer-Stamer. The basis for referring to a model of international competitiveness of national economies is a description – as precise as possible – of the factors of competitiveness (systemic) and the execution of the analysis on the following four levels (Esser, Hillebrand, Messner, Meyer-Stamer, 1995: 143–148): the meta level – socio-cultural surroundings, the macro level – policies of countries, the meso level – priorities of specialized areas, the micro level – activity of enterprises.

The World Economic Forum model is based mostly on the Global Competitiveness Index with 12 pillars of competitiveness (institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication, and innovation), which are in turn organized into three subcategories (basic requirements, efficiency enhancers, and innovation and sophistication factors). The model distinguished groups of factors, which affect the level of competitiveness:

1) the degree of openness for cooperation, the role of the central bodies (the State, its parent corporations, supranational institutions) as regulators of processes within the system under construction;
2) the assessment of the stability of the market situation of the organizations created in this way within the world economy system;
3) infrastructure development factors;
4) the quality of production and service base and its structural diversity; the ability to engage in an international system of innovation, creation and dissemination of new standards;
5) the quality of management methods, or the ability to meet the demands of different interest groups; evaluation of the structure and potential of human resources; the managing institutional system (regulatory).

The Business Environment Group model reveals five determinants of competitiveness. The factors taken into consideration also apply to all subsystems of organization: market, financial, organizational, technological and institutional ones. The strength of production and service assets (physical infrastructure), organizational and structural assets (information and communication networks) as well as the acquired “infrastructure potential” are identified as a type of investment mood, essential for improving the position of the subject in the future.

Within the International Institute for Management Development model, the following are identified as the basis for building competitiveness: the image of the initial “economic situation”, basic “infrastructure”, technical and scientific support underlying the decisions within the areas and the instruments of competition, and the “efficiency of government and management” (institutional model), prin-
ciples and mechanisms for building the system and the control of intra-organizational flows (financial, human, knowledge flow). In addition, it is pointed out that the choice of a competitive strategy encourages the “infrastructure of followed values” as reflected in the rules setting out the general framework of relationship building strategies. The model includes: basic resources, competence and skills, mechanisms and institutions.

The model by W. Bienkowski indicates the following as key:

1) the size and structure of productive resources, efficient use of these resources by selecting the right tools to compete;
2) the culture of the organization – a set of values, objectives and principles, reflecting the socio-economic policy to combat the competition;
3) the model of gaining advantage (cost, awards, brand, additional/per-product services etc.);
4) the international position of the subject at a particular time – the starting point for assessing the prospects of development, taking into account the openness of the system and its global engagement.

The model emphasizes the “overlap” of particular groups of factors and their interactions.

The model by K. Esser, W. Hildebrand, D. Messner and J. Meyer-Stamer underlines the importance of these interactions between different areas and organizes elements of the system, by assigning them to further levels of regulation: the meta – the cultural and social conditions, the ability to adapt to different requirements of individual areas of global space, the macro – the impact of institutional settings (policies shaping the economic environment), the meso – the conditions resulting from the specific nature of an area/sector, and the micro – the factors related to current activities of the system components.

The advantage of these, presented as exemplary models that have been built in order to assess the competitiveness of the national economies, is to draw attention to the necessity to consider all layers of the environment as determinants of long-term competitiveness – the systematic approach. Moreover it emphasizes the role of cultural and political environments as motivating competition, creating a social “mood” enforcing competitiveness. Furthermore, emphasis is put on quality, a flexible approach to change and the building of integrated networks.

To conclude, an integral part of company operations on the global market in the 21st century is a new approach to strategic management, which must include a large number of conditions that evolved over time. As a result, a modern multi-layer network strategy adequate for multi-level enterprises is created.
4. The multilayer structure of the capital of modern enterprises

It is of utmost importance to emphasize that the strength of modern firms is based on the organization and coordinating skills used to create an adequate resource collection, adjusted to meet the requirements of the neighbouring environment (Penrose, 1959). These resources constitute the essence of well-balanced development. They comprise tangible (economic capital) and intangible (intellectual capital) assets. The key role of an organization is to create a satisfactory model of the available resource usage. Combining this theory with the classic Ricardian notion of comparative advantage resulted in the creation of the theory that is the base of the modern perception of the essence of corporate strategy – the Resource Based View. This concept is an approach to achieving comparative advantage that refers to works, which were published by B. Wernerfelt (1984: 171–180; 1995: 171–174), G. Hamel and C.K. Prahalad (1990: 79–91) and J. Barney (1991: 99–120). The last author identified that the sustained competitive advantage refers to resources which are valuable, rare and costly to imitate – which need a demanding effort to be substitutable. The supporters of this view argue that organizations should look inside the company to find the sources of competitive advantage instead of looking only at competitive environment. The theory accentuates the role of the soft resources, that is the informal knowledge or skills, human resources, relations with the stakeholders (co-operators, clients, competitors and others) and image in building a competitive advantage.

The analytical model of multilayer structure of the capital of modern enterprises is based on an assumption that changes in the global economy have forced changes in companies. The most significant challenges are: the intensification of cooperation on many levels, the development of international entrepreneurship and the creation of multi-level network structures. Nowadays, the creation of added value emerges through the use of capital of a multi-layer organization. For the purpose of the analysis of company business systems, they have been divided into the following subsystems (Rosińska-Bukowska, 2012: 104–108): market, financial, innovative, organizational and institutional. Thus, the analysis becomes multidimensional and enables both an analysis of internal conditions (relationships established among the various subsystems) and external ones (the principles of harmonizing with the surroundings).

It is very important to emphasize that macro factors (economical, political, ecological etc.) are constructive for the key macro challenges, such as:

1) linking globalization and regionalization – glocalization (Shamsuddoha, 2008); using five components of the chain of knowledge: acquisition, selection, generation of new knowledge, adaptation of its effects to the external and internal determinants, practical application of global standards in local places;
2) building a multi-level relationship system – global network with many types of relationships; the key components of the potential of an enterprise are institutional resources, including the surrounding environment and political frameworks (Furman, Porter, Stern, 2002: 905; Pakulska, Poniatowska-Jach, 2015);

3) creative combination of various types of organizational, managing and social structures – orchestration (Pedersen, Devinney, Venzin, Tihanyi, 2014: 487–516) and implementation of modern network strategy (Trzaska, 2016: 350–362);

4) simultaneous cooperation and competition allowing for a replacement of operation with exploration – coopetition for a new organization to create a value-added chain (Costinot, Vogel, Wang, 2013: 109–144).

These ideas are fundamental and appear to be pillars of strategy for the most of the modern companies. These challenges are included in the analysis of institutional capital as inseparable elements of strategy.

To conclude, the new challenges posed by the global economy have determined particular behaviours of companies. An adequate competitive strategy requires the development of networks with numerous internal and external stakeholders, including competitors, customers, employees, non-profit organizations as well as the national and local government in the home and host countries. The foundation of effectiveness is the ability to adapt to new requirements. On the basis of the research, it can be said that changes in the strategies of most powerful companies (Rosińska-Bukowska, 2016: 5–13) and the most important pillars of strategies are: glocalization, business networking, orchestration and coopetition.

5. The pillars of the concept of systemic competitiveness

The author attempted to identify general principles of the concept of international competitiveness, understood in terms of a “standard model of organization” capable of building a strong competitive position. The basic requirements are as follows:

1) ongoing compliance with the criteria, which measure the ability to compete on a global level;

2) functioning on the basis of added value created as a result of solid, internal interactions of all subsystems;

3) a glocal approach – effective combination of global and local (e.g. respect for “local” cultural and social values);

4) transparency of structures and activities – creating regulatory institutions as centres of competence;
5) model of “knowledge organization” – treating intellectual capital as the basis for multiplying accumulated potential (economic capital);
6) expansion strategy based on assumptions, adequate to the requirements of economical knowledge – innovation, sustainable development, cooperation;
7) active meta-economic policy – consistent with the principles of corporate social responsibility.

The concept of systemic competitiveness was presented against the background of other views on business network coordination in table 1.

Table 1. The concept of systemic competitiveness against the background of other views on business network coordination

<table>
<thead>
<tr>
<th>Features and rules</th>
<th>Classical Management Theory View on Coordination (Galbraith, 1974)</th>
<th>Collaborative Network View on Coordination (Heikkilä, 2016)</th>
<th>Systemic Competitiveness Concept View on Coordination (Rosińska-Bukowska, 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>within hierarchy</td>
<td>within business</td>
<td>global business networks</td>
</tr>
<tr>
<td>Organization system</td>
<td>hierarchic cybernetic systems</td>
<td>open cooperation systems</td>
<td>coopetition (cooperation and competition at the same time) systems</td>
</tr>
<tr>
<td>Coordinator</td>
<td>manager based on authority</td>
<td>agreed in negotiations</td>
<td>orchestrator</td>
</tr>
<tr>
<td>Mechanism</td>
<td>hierarchical authority</td>
<td>co-creation process of business models</td>
<td>horizontal and vertical networks – hybrid models of co-creation</td>
</tr>
<tr>
<td>Aim</td>
<td>to limit the complexity and maintain stability</td>
<td>to learn and combine competences and knowledge (innovatively)</td>
<td>an ability to construct a system of interconnections, generating knowledge and innovation</td>
</tr>
<tr>
<td>Metrics for success</td>
<td>efficiency of the organization</td>
<td>efficiency and fairness of the deal for each partner</td>
<td>improving the skills of individual members and the whole network for the creation of added value</td>
</tr>
</tbody>
</table>


In order for the network business model to be adapted to the activities of the member companies, the process of co-creation that would add value to each partner needs to be agreed upon, by way of negotiations (Heikkilä, 2016: 52). In practice, the global business network does not need to be adjusted in detail, but all participants should look back at the kinds of processes that have already occurred and think how the network could, by combining these processes, produce the desired outcome.

To summarize, the admittance of the above mentioned items as base forms for international competitiveness results in the fact that in the modern world the abili-
ty to construct a system of interconnections, generating knowledge and innovation and, thereby, improving the skills of individual members is of paramount importance. Competitiveness is based on the initial position of the subject (core competitiveness). In order to maintain competitive position it is necessary to be creative and innovative (operational competitiveness). This shows the need to enrich and consolidate core competence, which is a combination of cooperation and competition (competition competence). Only this allows for long-term advantages in terms of dynamic changes within the environment – systemic competitiveness.

6. Summary

The proposed elements of the model for the assessment of international competitiveness appear to be adequate when facing the challenges created by the global economy for all kinds of participants. The implementation of the concept of systemic competitiveness refers to an intelligent multilayer capital of an organization. The essence of the model is the recognition of intellectual capital as an important growth factor, which is reflected in putting emphasis on the involvement in innovative projects that contribute to sustainable development and exploitation of synergies and the diversity of international social environment.

Consequently, adapting a systemic model of competitiveness means that major factors of competitiveness are judged based on five levels of an organization’s capital. The essence of the model is to find worthy economic and intellectual parts of the capital, which together create hard and soft added value. This promotes thinking that socially responsible projects, the ability of coopetition, glocalization and networking can improve an organisation’s chances for development. It is, however, necessary to make wider use of management methods that involve diverse, multicultural competences of the environment. Compliance with these requirements seems to allow for growth in the changing global world.

The author has emphasized that the new concept of competiveness must apply to all areas of an organization’s capital – the comprehensive analysis of all layers of the organisation is unavoidable. The challenge is to shape competitiveness for facing constant changes and growing requirements, to combine competition with cooperation, seeking the long-term sustainability model of development. The main thesis of this paper rests on this model being based on the assumption that knowledge gathered during the interaction in global business networks is the strength of a modern organization.
References


New Approach to International Competitiveness of Multi-layer Enterprises…


Nowe podejście do oceny międzynarodowej konkurencyjności przedsiębiorstw wielowarstwowych. Wykorzystanie jako wzorca makroekonomicznych modeli oceny konkurencyjności

**Streszczenie:** W dobie globalizacji pojawiły się nowe wyzwania związane z konkurencyjnością. Celem niniejszego artykułu jest podkreślenie potrzeby nowego spojrzenia na kwestie międzynarodowej konkurencyjności w dobie globalizacji i konieczności skoncentrowania wysiłków na tworzeniu konkurencyjnego systemu, który zostanie oparty na czterech poziomach: mikro-, mezo-, makro- i metaekonomicznym. W artykule zaprezentowano koncepcję konkurencyjności systemowej jako nowe podejście do oceny międzynarodowej konkurencyjności przedsiębiorstw o złożonych strukturach. Artykuł obejmuje cztery części merytoryczne oraz wprowadzenie i podsumowanie. Pierwsza część
zawiera rozważania dotyczące aktualnych wyzwań w procesie globalizacji i wymogów dotyczących międzynarodowej konkurencyjności. Druga część prezentuje teoretyczne pojęcia związane z badaniami nad konkurencyjnością podmiotów o złożonych strukturach na bazie pięciu koncepcji oceny międzynarodowej konkurencyjności. W części trzeciej zwrócono uwagę na konieczność uwzględnienia pięciu warstw kapitału organizacji jako filarów tworzenia konkurencyjności w obecnej gospodarce. W ostatniej części zaprezentowano ogólne założenia koncepcji konkurencyjności systemowej jako modelu adekwatnego do oceny zdolności kreacji wartości dodanej przez podmioty o złożonych, wielowarstwowych strukturach międzynarodowych.

**Słowa kluczowe:** konkurencyjność, kooperacja, biznes międzynarodowy, przedsiębiorstwa

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