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Development of global economy and international business: New network and networking ideas

The paper presents an overview of new network and networking ideas as well as their impact on contemporary changes in economy and culture under conditions of globalisation and intensive development of international business. Networking processes and new network-based development tendencies in economy and culture are described and defined as a particularly important field of scientific cognition. The complexity and systematics of networking and network-creation processes are analysed. The main focus is on the idea that they could be perceived as one of the most important priorities of the modernisation of contemporary economy and culture, as well as of social, economic, and political development as well as scientific and technological progress. Promising directions of the scientific research on networking and networks are also characterised.

Keywords: economy, culture, society, networks, networking, globalisation

JEL classification: A10, F01, F39, O39, Q39

Rozwój globalnej gospodarki i międzynarodowego biznesu – nowe spojrzenie na sieci i networking

Niniejsza praca przedstawia nowe podejście do zagadnienia sieci oraz ich budowania, jak również ich wpływ na współczesne zmiany ekonomiczne i kulturowe w warunkach globalizacji oraz intensywnego rozwoju biznesu międzynarodowego. Opisuje ona zjawisko networkingu i powiązane z nim tendencje rozwojowe w gospodarce i kulturze stanowiące szczególnie ważny obszar poznania naukowego, a także analizuje złożoną systematykę procesów networkingowych oraz procesów tworzenia sieci, kładąc nacisk na postrzeganie procesu budowania sieci jako jednego z najważniejszych priorytetów modernizacji współczesnej gospodarki i kultury oraz postępu społecznego, ekonomicznego, politycznego, naukowego i technologicznego. Przedstawia ona również obiecujące kierunki badań naukowych nad sieciami i ich tworzeniem.

Słowa kluczowe: gospodarka, kultura, społeczeństwo, sieci, networking, globalizacja

Klasyfikacja JEL: A10, F01, F39, O39, Q39

Introduction

Contemporary social, economic, and cultural changes under conditions of globalisation and intensive development of international business could be defined as an especially important sphere of practical activities and processes of modern societal development and a particularly complex subject of scientific cognition, research, and studies. Within these changes, a large variety of processes, circumstances, causes, and trends can be distinguished, which are explored by various theoretical approaches. In this context, a networking- and network-based theoretical approach can be perceived as an especially prospective path of scientific research. It also can be said to represent many urgent needs and challenges.

Many new ideas regarding networks, networking, and the impact thereof on contemporary changes in economy and culture are being developed, which can be discussed in a rather wide context. The networking processes and new network-based development tendencies in various sectors of economy and culture – which can be viewed as a particularly important field of scientific cognition, research, and studies – should of course be investigated and analysed. The main aspects of these tendencies should be identified and analysed in detail, along with the complexity and systematics of networking and network society creation processes.

The main focus should be on the idea that networking processes and the emergence of the network society could be perceived as one of the most important priorities of the modernisation of contemporary economy and culture, as well as of social, economic, and political development and scientific and technological progress in general.

Modern networks can be considered an effective and highly promising organisational form. As they are strongly oriented toward innovation [Melnikas, 2011; 2013; 2014], their creation and development is closely associated with the concept of searching for, identification, and application of synergetic effects in various sectors of social, economic, and cultural life [Castells, 2000; 2004a; 2004b; Friedman, 2006; 2009; Steinmueller, 2002; Grace, Butler, 2005; Fischer et al., 2010]. Main priorities of these processes should therefore be analysed and promising directions of the scientific research on networking and networks identified.

The subject of this paper are processes of networking in the context of the needs arising in relation to the modernisation of contemporary society, economy, and culture, especially under conditions of globalisation and intensive development of international business; the main focus is put on network and networking ideas in general, on their variety in various areas of economic, cultural, and social life, as well as on the impact of networking on the changes in contemporary economy and culture.

The paper is based on the author's original research on the contemporary social, economic, and cultural changes, networks, and networking processes. The methodology is based on the notion of complexity of scientific cognition of quantitative and qualitative changes. Traditional methods and models of investigation and analysis of the processes of social and economic development are used. Materials and results of numerous previous scientific studies are also referred to and summarised [Melnikas, 2002; 2010; 2011; 2013; 2014]. The most important new results presented herein are based on the author's original insights.

The aims of the research were to:

- explore new definitions of networks and networking processes, systematise different types of networks,
- describe the role and importance of networks and networking in the context of contemporary challenges and needs related to the modernisation of society, economy, and culture,
- determine the main priorities of networking and further scientific research on the network society and network-based economy in the context of contemporary societal, economic, and cultural changes.

1. Networks and networking under conditions of globalisation and intensive development of international business: Theoretical approach

Taking into account the challenges and needs related to the modernisation of contemporary economy and the development of culture, especially under conditions of globalisation and intensive development of international business, the emphasis should be placed on new forms of social, economic, and technological changes, with priority given to innovations and their dissemination. The above phenomena, as well as the establishment and use of new organisational forms in various areas of modern social and economic life, should be based on recent achievements in synergetics [Melnikas, 2011, 2013]. The solutions to the problems associated with searching for, identification, and implementation of synergetic effects can, in turn, be based on modern networks and networking concepts [Castells, 2000; 2004a; 2004b; Melnikas, 2002; 2011; 2013; Currie, 2000; Fischer et al., 2010].

Networks and networking processes can be perceived from various perspectives, which allows us to outline the possibilities and prospects of different forms of cooperation between the business and public sectors and the way they interact within networks. Business and public sector networks are considered to include individuals, enterprises, institutions, and other organisations that conduct their activities on national or international levels. Thus, it may be argued that the effects

of networking on the interaction between the business and public sectors as well as their convergence, integration, and internationalisation, are characterised by manifold forms, potentialities, and perspectives and are of great significance for these processes, which makes the concept of networking particularly important for the analysis of the above listed phenomena [Melnikas, Reichelt, 2004; Ein-Dor, Myers, Raman, 2004; Ravenhill, 2008]. Indeed, modern social, cultural, and economic development, the advance of science and technology, and, particularly, the processes of globalisation and internationalisation render networks an important precondition for further progress and an effective and highly promising organisational form.

The diversity and variety of networks and networking processes, along with the possibilities and prospects of their development, reveal the importance of establishing the priorities of societal modernisation and effective economic development [Dang, Umemoto, 2009; David, Foray, 2002].

Nowadays, networks and networking processes attract much attention both in scientific research and in the practice of many fields of social, cultural, and economic development. At the same time it must be emphasised that the establishment and development of networks and networking processes in general is not yet perceived as an essential and exceptionally important factor in the changes in contemporary culture, economy, and social life, especially under conditions of globalisation and radical technological transformations.

2. Networks and networking as an important factor in further intensive development of international business and global economy

Networks and networking can be perceived as a particularly important factor in further intensive development of international business and global economy. To consider a network as an organisational form, its concept should be defined first. Generally speaking, a network is a system of elements oriented toward achieving a shared goal, which is to perform common functions [Castells, 2000; Melnikas, 2011; 2013; 2014; Melnikas, Reichelt, 2004]. This definition allows us to identify three main features of a network:

- a network is as a system comprised of connected, interrelated elements able to operate as a single control and self-regulating unit,
- this system is oriented toward achieving a shared goal or performing common functions, the elements forming a network retain their original properties, features, and specific character (this allows us to identify a network as a specific system, whose elements to some extent perform their functions independently).

Network understood as a social system can be more broadly defined as a collective of agents with specific interests. Such a system is characterised by the following features:

- the agents interact with each other,
- common interests are realised, shared goals pursued, and general functions performed,
- it operates as a control and self-regulating organisation.

A network is usually defined as an organisation, because they possess common characteristics. An organisation is understood as a collective or system of agents with two main features:

- the interaction between the agents manifests itself as a direct interrelation and feedback based on suitable infrastructure,
- common interests become apparent in the structure of the agents' special interests.

A network understood as an organisation has the following distinguishing attributes:

- the agents demonstrate independence, autonomy, and the capacity to retain their original characteristics,
- it is a single whole that functions based on the principle of self-regulation.

The above-described approach allows us to interpret a network as a particular organisational framework for the activities of various agents. It is also clear that the main advantage of a network is its orientation toward innovations, i.e., its potential for making use of synergetic effects. An effectively operating network is therefore conducive to developing, disseminating, and applying innovations [Steinmueller, 2002; Currie, 2000; Fischer et al., 2010; Goeransson, Soederberg, 2005].

Taking into account the challenges of globalisation and social, cultural, and economic internationalisation, it may be argued that the most successful and effective networks are those that operate on the international level, because this environment is more favourable for disseminating innovations. For this reason, the problems of establishing networks and expanding the area of their application are considered a priority for developing and improving international management.

The diversity of networks renders the problems associated with their establishment, improvement of their performance, and expansion of the application area rather complex. A study of their various forms and characteristic features is the main precondition for the successful development and use of effectively performing networks. They are generally classified based on:

- the nature of their operations, intended application, and development,
- the characteristics of the agents involved,
- their scope and expansion and their influence on social, economic, and political development and the advance of science and technology.

An analysis of the above aspects will allow us not only to become better acquainted with various types of networks, but also to recognise the possibilities

presented by networking innovations. Their evaluation is a complex task and requires the assessment of the conditions that allow for the existence of the variety of networks, which, in turn, depend on the characteristics of the agents operating in these networks. These include two basic conditions:

- the variety of the agents,
- the variety of their interests and goals.

Under the present conditions of social, economic, and political development as well as scientific and technological advance, various types of networks comprised of enterprises, institutions, and other organisations that operate in both private and public sectors should be considered of significance. This statement is based on the fact that, in the context of the increasing globalisation and social and economic development, various liberalisation processes manifest themselves in all spheres of life. Further development is increasingly dependent on innovations and private initiative, which, in turn, originate from the operations of private-sector and mixed networks. For this reason, the expansion of the private sector and cooperation between the private and public sector should be promoted.

It is also necessary to take into consideration the existing motives for the integration of various organisations into networks and the way they operate and develop within these networks.

The variety of networks results from a number of highly important factors:

- their size (the number and size of organisations or other agents) and the complexity of their structure,
- the scope of their activities and development in terms of the amount and variety of products they produce, as well as the amount of resources they store and consume,
- the scope of their activities and development in geographical and temporal terms,
- the effectiveness of their activities and development as well as their impact on various social, economic, political, and technological processes.

The above-described and other characteristic features allow us to determine the role of various networks and the prospects of their development in the modern world, in which we can observe their increasing significance for social, economic, political, scientific, and technological advance.

The following priorities of effective network development can be established:

- development of international networks aimed at effective solution of social, economic, political, safety, environmental, scientific, technological and other significant problems. This implies the ability of networks to successfully deal with the difficulties on the international and global level and the possibility of the establishment of multidimensional and international networks by various entities operating in the business and public sectors;

- development of international networks aimed at supporting the advance in the business and public sectors and other spheres of the modern world. This implies the ability of networks to operate as highly effective systems in these areas. Each such system should possess unique advantages (e.g. exceptional quality, effectiveness, productivity) and be recognised as an indisputable leader in its field, which should ensure that efforts would be made to solve its (existing or potential) problems (this priority considers network development from the perspective of particular sectors);
- development of networks aimed at supporting clearly defined regional (national and international) systems. This implies the ability of networks to ensure conditions favourable to the formation of highly effective regional systems and to promote advance in all main spheres of life. Each such system should, as an integrated whole, demonstrate a particularly high quality of life in all its key aspects (this priority considers network development from a regional perspective);
- development of interregional networks aimed at supporting business sectors and regional clusters. This priority expresses the intention to establish mixed networks that would promote a multidimensional development of various regions and environments as well as to encourage and promote innovations by pointing to the potential of integrating different systems (e.g. in the fields of science, education, development and dissemination of technologies, production and provision of services in business sectors, public service, policy making) in various regions and areas (this priority considers networks as multidimensional and multi-network systems);
- development of interpersonal communication networks aimed at encouraging and increasing the effectiveness of partnership and cooperation between individuals in various branches of creative activity (art, science, technologies, business, social life, legislation, politics, etc.) by promoting innovations in all spheres of the modern life and emphasising the role of each individual in modernising the society and realising the interests and aims of the society as a whole as well as of a particular community, social group, or individuals (this priority considers networks as international business entities oriented toward the implementation of humanistic and democratic ideas).

The above priorities can be considered the most important for the development of networks and their activities under the existing conditions of globalisation and social, economic, political, scientific, and technological advance. Their distinguishing feature is their orientation toward and promotion of innovations in all spheres of life of the modern society.

In addition, the significant role of network development in a priority task of increasing cooperation of modern states with business entities by implementing the principles of project management should be emphasised. Partnership be-

tween local, regional, national, and international institutions, enterprises, and other organisations – both governmental and non-governmental – that represent both business and public sectors, the civil society, and sectors associated with the development of science and technologies can be established based on a great variety of network models. Moreover, the creation and development of networks charged with developing and implementing large international projects should be considered a particularly important, progressive, and perspective trend in network development capable of facing the challenges of globalisation and internationalisation [Dicken, 1998; Friedman, 2006; 2009; David, Foray, 2002; Farnsworth, 2005].

Particularly important examples of multidimensional international networks that strongly influence the promotion of innovations in the European Union include:

- complex production and service systems that make wide use of technologies of information, telecommunication, automation, and robotics, and create and distribute qualitatively new products,
- complex systems intended for developing human resources and used for accumulating the functions for satisfying the needs for creating a knowledge-based society and developing education, science, studies and technologies in all spheres of life and creating the conditions for realising the principle of continuous learning,
- systems aimed at achieving breakthroughs and creating qualitatively new situations in various spheres of life.

These systems can indeed be viewed as particularly important models that can be used to further increase the potential of innovations [Melnikas, 2002; 2011; 2013; 2014].

The growing importance of international networks and their role in shaping modern society, culture, and economy allows us to argue that their further development will inevitably bring with it a natural transformation of the existing society and economy into a new type of society and economy, which can be referred to as the international network-based society and economy, or, more simply, the network society and network-based economy.

Conclusions

The most important results of the above study include:

- much wider than the traditional perception of networks and the role of networking processes in the context of contemporary social, cultural, economic, and technological changes,
- identification of the characteristic features of networks as a specific organisational form,

- presentation of the variety of networks and networking forms in the context of contemporary social, cultural, and economic changes,
- detailed characterisation of the priorities of networking, practical requirements, and new directions of the scientific research on networks and networking.

A general conclusion can be drawn that the transformation of the traditional societal and economic system into the so-called network society and network-based economy is a significant factor increasing the potential of creating and spreading innovations. The establishment of international networks and improvement of their efficiency should therefore be encouraged in order to discover new possibilities of purposefully and effectively using this potential. In this context, many new directions and priorities emerge for the scientific research on contemporary social, economic, technological, political, and cultural development tendencies.

The establishment of the network society and network-based economy is perceived as one of the most important priorities in the contemporary development and modernisation of economy and culture, and in social, economic, political, scientific, and technological progress, as well as the main way to solve most social, economic, technological, and even security and defence problems worldwide as well as in various countries or regions. It expresses the essential qualitative changes in all the above-listed areas and in the way we interact with nature. It also deeply influences the processes of social development and the state of the modern world in general.

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