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FEATURES OF THE DEVELOPMENT OF CLUSTER PARTNERSHIP AS A NEW FORM OF QUASI-INTEGRATIVE PROCESS

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The purpose of the article. The main goal of this work is to investigate the specifics of the development of cluster partnership as a form of quasi-integration process.

Methods of research. The article uses general scientific research methods, in particular, empirical methods: methods of historical, logical and comparative analysis – to reveal the evolutionary foundations of cluster partnership development as a new form of quasi-integration process.

Presentation of the main research material. The latest global technological trends are characterized by the intensification of the fifth industrial revolution and the transition of the world economy to the sixth technological system and the knowledge economy. While the industrial economy defines vertical integration, the knowledge economy encourages the formation of inter-organizational relationships and business arrangements built in networks. In this context, the development of national ecosystems and second-level clusters is observed, as well as the spread of partnership interaction between cluster structures on a global scale, which proves the timeliness and relevance of this research. The article analyzes the main stages of integration processes in terms of the formation of technological structures. It was established that the sixth stage of the

development of integration processes coincides with the formation of the VI technological system and the evolution of the category of quasi-integration, which is a predictor of the development of cluster partnership. The development of the concept of quasi-integration among Ukrainian and foreign scientists is studied. Therefore, based on the research data, the article proposes to supplement the given classification of forms of quasi-integration with such a form as cluster partnership. In this research, the barriers of integration and quasi-integration are considered and their features are highlighted in relation to the forms of integration and quasi-interactional structures.

Conclusions from the conducted research. In the course of the research, researching the forms of the quasi-integration process, it was proved that the cluster partnership contains features of both an integrated structure and a quasi-integrated structure. Taking into account the criteria specified in the study, we can state that the barriers to integration in corporate structures are quite high, in contrast to the quasi-integrated structure – cluster partnership.

Keywords: integration; integration processes; integrated business structures; quasi-integrated business structures; business entities; network economy.

NUMBER OF REFERENCES 20	NUMBER OF FIGURES 0	NUMBER OF TABLES 3
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ОСОБЛИВОСТІ РОЗВИТКУ КЛАСТЕРНОГО ПАРТНЕРСТВА ЯК НОВОЇ ФОРМИ КВАЗІІНТЕГРАЦІЙНОГО ПРОЦЕСУ

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Метою даної статті є дослідження особливостей розвитку кластерного партнерства як нової форми квазіінтеграційного процесу.

Методи дослідження. У статті використано загальнонаукові методи дослідження, зокрема, емпіричні методи: методи історичного, логічного та порівняльного аналізу – для розкриття еволюційних засад розвитку кластерного партнерства як нової форми квазіінтеграційного процесу.

Виклад основного матеріалу дослідження. Новітні глобальні технологічні тренди характеризуються інтенсифікацією п'ятої промислової революції та переходом світової економіки до шостого технологічного укладу та економіки знань. Тоді як промислова економіка змінює вертикальну інтеграцію, економіка знань стимулює утворення міжорганізаційних відносин та ділової домовленості, що будуються в мережах. У цьому контексті є можливість розвитку національних екосистем і кластерів другого рівня, а також розширення партнерської взаємодії між кластерними структурами в глобальному вимірі, що призводить до продуктивності та актуальності даного дослідження. У статті проаналізовано основні етапи інтеграційних процесів у розрізі становлення технологічних укладів.

Встановлено, що саме шостий етап розвитку інтеграційних процесів співпадає зі становленням VI технологічного укладу та еволюцією категорії квазіінтеграції, яка є предиктором розвитку кластерного партнерства. Досліджено розвиток поняття квазіінтеграції серед українських та зарубіжних науковців. Відтак, спираючись на дане дослідження, у статті пропонується доповнити наведену класифікацію формування квазіінтеграції такою формою як кластерне партнерство. В даному дослідженні представлено бар'єри інтеграції та квазіінтеграції і виділено їх ознаки щодо форм інтеграційних та квазіінтеграційних структур.

Висновки з проведеного дослідження. У ході дослідження, досліджуючи форми квазіінтеграційного процесу, доведено, що кластерне партнерство містить у собі ознаки як інтегрованої структури, так і квазіінтегрованої структури. Зважаючи на зазначені в дослідженні критерії, можна констатувати, що бар'єри інтеграції в корпоративних структурах досить високі, на відміну від квазіінтегрованої структури – кластерного партнерства.

Ключові слова: інтеграція; інтеграційні процеси; інтегровані структури бізнесу; квазіінтегровані структури бізнесу; суб'єкти бізнесу; мережна економіка.

Statement of the problem and its relation to important scientific and practical tasks. The latest global technological trends are characterized by the intensification of the fifth industrial revolution and the transition of the world economy to the sixth technological mode and knowledge economy. While the industrial economy defines vertical integration, the knowledge economy stimulates the formation of inter-organizational relationships and networked business arrangements. In this context, the development of national ecosystems and second-level clusters is observed, as well as the spread of partnership between cluster structures in the global dimension, which significantly actualizes the need to study the development of cluster partnership as a new form of quasi-integration process.

Actually, the sixth stage of the development of integration processes coincides with the formation of the VI technological mode and the evolution of the category of quasi-integration, which is a predictor of the development of cluster partnership.

Analysis of recent publications on the problem. The term "quasi-integration" appeared in scientific circles quite recently. Quantitative analysis of the results of queries in the Internet environment related to quasi-integration is quite insignificant and amounts to 1240 results for the keyword query, for comparison – the keyword query "integration" gives 23 million 500 thousand results. It should also be noted the lack of theoretical research on the analysis of the phenomenon of quasi-integration, as well as the lack of a unified interpretation of this concept (see, for example, Blois, 1972; Dietrich, 1994; Fernandez, Arrunada, Gonzalez, 2000; Jarillo, 1988; Masten et al, 1989; Monteverde, Teece, 1982; Sheresheva, 2010; Zhyhalkevych and Solntsev, 2018; Zhyhalkevych, 2019). Despite the significant number of studies, we can state that the basis of scientific works of both domestic and foreign authors are taken in terms of integrated and quasi-integrated processes, we set a goal to study the features of quasi-integration through the prism of cluster partnership development, which determined the purpose of this study. cluster partnership as a new form of quasi-integration process.

Statement of the main results and rationale. On the basis of the study of the theoretical basis let us distinguish the stages of development of integration actions in the context of formation of technological modes, revealing the specificity of each period (Table 1).

As can be seen from Table 1, all known waves of integration are connected with technological modes, industrial crises and rises, inflation, in other words, with periods of organizational restructuring of the economy and revaluation of its assets. Actually, the sixth stage of development of integration processes coincides with the formation of the VI technological mode and evolution of the category of quasi-integration, which is a predictor of cluster partnership development.

Table 1

**The main stages of integration processes in the context
of the formation of technological modes**

Criteria	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Periods	1895–1904	1916–1929	1960–1970	1980–1990	1990–2000	2000 – present
Technological stack	III technological stack (1890–1930)		IV technological stack (1930–1970)	V technological stack (1970–2010)		VI technological stack (2010 – present)
Type of integration	Horizontal (78%)	Vertical (63%)	Conglomerate (70%)	Horizontal (47%), Vertical integration (39%)	Horizontal (56%), Vertical (6%)	Hybrid integration, quasi-integration
Industries	Metallurgical, food, oil, chemical, mechanical engineering	Financial institutions, food, oil, chemical, mechanical engineering	Automotive, aerospace	Pharmaceutical, medical industry, air transport, banking sector	Oil and gas, telecommunication industry, insurance, banking and financial services sector	Interconnected industries are conditioned by cluster partnership
Reasons	Economic downturn	Toughness of antitrust laws	Toughness of antitrust laws. Risk appetite, management ambitions, arrogance	Expansion of business activity in FEA, a favorable business climate	Profound technological changes. Stagnation of the world economy, unstable international situation	Development of network economy, clusters of the second level of development
Purposes	Concentration of resources, offers, strengthening of monopolistic action	Expansion of the segment of the controlled market; specialization	Diversification, decentralization of management, delegation of capabilities	Expansion of the controlled market segment worldwide	Ensuring stability, increasing the efficiency of production and economic activities	Increasing the stability of the national economy; development of priority industries; implementation of cluster partnership development programs

End of Table 1

Criteria	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Effects	Operational synergy	Operational synergy	Financial synergy	Investment synergy	Investment synergy	Emergence-based synergy
Constitutive concepts	Reduction of costs. Strengthening of monopolistic (oligopolistic) positions	Reduction of costs. Strengthening of monopolistic (oligopolistic) positions	Reduction of costs. Strengthening of monopolistic (oligopolistic) positions. Expansion of financial operations and withdrawal of part of capital from industries which faced recession	Reduction of costs. Strengthening of monopolistic (oligopolistic) positions. Restructuring of business and redistribution of resources	Reduction of costs. Strengthening of positions. Maintenance of stock market liquidity by additional issue of bonds and satisfying investors' demand	Reducing transaction costs and reducing asset specificity. Support of institutional norms and rules within the cluster partnership and at the level of the state

Source: systematized and supplemented by the author on the basis of (Bertolini and Giovannetti, 2006; Cooke, 2002; Contractor et al., 2003; Ganushchak-Efimenko et al., 2018; He et al., 2011; Kuksa, 2014; et al., Lai et al., 2014; Freeman, 2008).

The degree and nature of quasi-integration of business entities vary from country to country – each country is guided by national traditions, the achieved level of economic development and the most urgent economic problems in choosing the best ways (Bertolini and Giovannetti, 2006). In particular, French scientist H. Welck believes that "quasi-integration (hybrid organization) is a situation in which firms, while retaining the advantages of vertical integration, avoid its risks or ownership rigidity" (www.alpine-space.org, 2007–2013). There is also a widespread opinion that quasi-integration refers to the case when a producer subcontracts the production of a certain component, having at the same time the specific physical assets necessary for the production of this component (Webser, 1995).

The above definitions from the point of view of the authors of the Bureau of Economic Analysis somewhat limit quasi-integration to vertical interactions, the scientists are of the opinion that quasi-integration "is an example of selectivity of vertical integration", explanation of which requires detailed analysis of the situation according to the following parameters

- 1) Identifying the directions in which vertical integration can take place.

2) Determination of factors promoting or hindering integration.

3) "Weighing" the factors of integration (Cooke, 2002).

According to (Zhyhalkevych and Solntsev, 2018), this approach is also an unjustified narrowing of the concept of quasi-integration. Quasi-integration can be not only vertical, but also horizontal and universal (Kuksa, 2017).

Famous Danish professor of business economics Farok Contractor observes: "firms choose between alternative forms of international business, from making direct foreign investments to technology transfer on a contractual basis using license agreements, with a whole range of forms of quasi-integration, such as joint ventures..." (Contractor et al., 2003, p. 12). However, the joint venture (as well as strategic alliance, in particular) does not necessarily imply interaction "vertically".

The famous Chinese scientist-economist Y. L. Lai believes that quasi-integration is an association of assets of legally independent companies, voluntarily agreeing to control the management of their assets (Lai et al., 2014).

Among the Ukrainian scientists we should highlight the scientific works of Zhanna Zhyhalkevych and Sergei Solntsev (2018), who in the study of the process of quasi-integration reveal the essence of the concept of quasi-integrated structures as self-learning, self-organizing and self-developing systems. Their characteristic features: stability (about changes in the external environment) and synergy (relative to internal effects). This study considers such forms of quasi-integrated structures as strategic alliance, Network-connection, Cluster, Value Chain (network), Focal Supply Network, Dynamic Focal Network, Virtual Organization (Zhyhalkevych and Solntsev, 2018; Zhyhalkevych, 2019).

Consequently, based on the research of foreign and domestic scientists, it is proposed to supplement the following classification of forms of quasi-integration with such form as cluster partnership (Table 2).

Table 2

Forms of the quasi-integration process

Forms of the quasi-integration process	Definition	Type of quasi-integration	Author
Strategic Alliance	A strategic alliance is an agreement for the cooperation of two or more independent firms to achieve certain commercial goals aimed at obtaining synergies of the companies' combined and complementary strategic resources.	Horizontal (sometimes with elements of vertical)	M. Starovoitov

End of Table 2

Forms of the quasi-integration process	Definition	Type of quasi-integration	Author
Network-alliance	Free flexible coalition, managed from a single center, which undertakes such important functions as the creation and management of them, the coordination of financial resources and technology, the definition of areas of competence and strategy, as well as solving the related management issues, linking the network together.	Vertical, Horizontal	F. Webster
Value Chain	A form of vertical quasi-integration, the special feature of which is the long-term cooperation of partners who have generally equal rights and who are located along the value chain, serving specific markets or customer orders.	Vertical with horizontal elements	M. Sheresheva
Focal supply chain network	A network in which one (usually a large) company is the central unit (focal firm) and suppliers located at different stages of value creation (first, second, third level suppliers) are in a dependent position.	Vertical	S. Orekhova
Dynamic focal network	A vertical network, which provides value creation for the consumer by combining products and services of partner companies, is grouped around one dominant central unit, which coordinates value creation activities in hierarchical ways.	Vertical, horizontal	S. Orekhova
Virtual organization	A temporary form of cooperation based on the use of information technology that provides benefits to customers. This is achieved by optimizing the system of production of benefits on the basis of a trusting combination of resources and competencies of the partners included in the network. It is due to this that synergistic effect and resource cost savings are sometimes achieved.	Vertical, horizontal	K. Rumyantsev

Source: systematized by the author on the basis of (Orekhova, <http://orekhovasv.ru>; Rumiantsev, 2008; Starovoitov et al., 2014; Sheresheva, 2010; Webser, 1995).

Based on a thorough analysis of the barriers to integration and quasi-integration, let us distinguish their attributes in relation to the forms of integration and quasi-integration structures (Table 3).

Table 3

Barriers to the development of integration and quasi-integration

Signals	Forms of integration and quasi-integration structures					
	Cartel	Conglomerate	Consortium	Syndicate	Holding	CP
Lack of diversification	+	-	-	+	+	-
Limit of participants	+	+	+	+	+	-
Loss of independence	-	+	-	-	+	-
Antitrust policy	+	-	-	+	-	-
Severe restrictions	+	+	+	+	+	-
Lack of government support	+	-	-	+	+	-
Low level of competitiveness	+	-	-	+	-	-

Source: researched and systematized by the author based on (Bertolini and Giovannetti, 2006; Cooke, 2002; He et al., 2011; Freeman, 2008; Pattinson et al., 2014; Zhao et al., 2009).

Conclusions and prospects for further research. Given the above criteria, we can state that the barriers to integration in corporate structures are quite high, in contrast to the quasi-integrated structure – cluster partnership, because the limitations are "smoothed out" by the state policy in terms of regional development (regional development strategy for 2020–2027) (zakon.rada.gov.ua, 2020), which will have a positive effect on employment, the budget, reduction of social tension, improvement of the region's image, and will also contribute to further socio-economic development of the national economy.

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