ОСОБЛИВОСТІ РОЗВИТКУ СВІТОВОГО ГОСПОДАРСТВА ТА МЕВ

УДК 339.92(075.8)

MNE's THEORY AND GLOBAL VALUE CHAINS

ТЕОРІЯ БНП ТА ГЛОБАЛЬНІ ЛАНЦЮЖКИ СТВОРЕННЯ ВАРТОСТІ

ТЕОРИЯ МНП И ГЛОБАЛЬНЫЕ ЦЕПОЧКИ СОЗДАНИЯ СТОИМОСТИ

Rogach O.

Doctor of Science, Professor, Head of the International Finance Department of the Institute of International Relations of Taras Shevchenko National University of Kyiv. E-mail: alex_rogach@ukr.net

Рогач О.І.

Доктор економічних наук, професор, завідувач кафедри міжнародних фінансів Інституту міжнародних відносин Київського національного університету імені Тараса Шевченка. E-mail: alex_rogach@ukr.net

Рогач А.И.

Доктор экономических наук, профессор, заведующий кафедрой международных финансов Института международных отношений Киевского национального университета имени Тараса Шевченко. E-mail: alex_rogach@ukr.net

Анотація. *Стаття аналізує розвиток теорій багатонаціональних підприємств (БНП) від перших піонерних робіт С.Гаймера і до сучасних підходів вивчення цих інституцій. Особлива увага приділяється показу однієї з дослідницьких шкіл, що вивчає фрагментацію міжнародного виробництва та глобальні ланцюжки створення вартості (ГЛСВ). В цьому контексті розглядаються різні теоретичні підходи аналізу сучасних глобальних мереж БНП, зокрема теорія торгівлі по задачам и макроекономічний підхід оцінки ефектів фрагментації.*

В статті аргументовано, що поняття «міжнародне виробництво БНП» та ГЛСВ взаємопов'язані, хоча і не тотожні. Іноді такі поняття використовуються як синоніми, але вони характеризують сучасний процес інтернаціоналізації виробництва з різних точок зору. Розкрито різні типи організації глобальних ланцюжків створення вартості, зокрема при горизонтальній та вертикальній інтеграції виробництва. В межах таких мережевих систем багатонаціональних підприємств існують складні ієрархічні відносини між окремими учасниками та ланками. Технологічне подрібнення виробництва на окремі фрагменти вимагає від БНП використання не тільки власних акціонерно контрольованих філіалів, але й залучення офшорингового виробництва фірм-партнерів.

Ключові слова: *багатонаціональні підприємства, фрагментація міжнародного виробництва, прямі іноземні інвестиції, глобальні ланцюжки створення вартості.*

Abstract. *This article analyzes a multinational enterprise (MNE) theories from the first pioneering papers of S. Hymer and the modern approaches to studying these institutions. A special focus is placed on the one of the research schools that studied the fragmentation of international production and the global value chain (GVCs) creation. In this context, various theoretical approaches to the study of modern global MNE networks are considered, the*

theory of trade in tasks and the macroeconomic approach to the evaluation of fragmentation effects.

The paper argues that the concepts of MNEs international production and GVCs are interlinked, although not equal. Sometimes they are used as synonyms, but they characterize the contemporary process of internationalization from different perspectives. It shows the various types of organization of global value chains, such as the horizontal and vertical integration of production. Within such networking systems of multinational enterprises there are complex hierarchical relationships between individual participants and links. Technological slicing of production into separate fragments requires MNE to use not only own equity- controlled affiliates, but also the offshore production of partner firms.

Key words: *multinational enterprises, international production fragmentation, foreign direct investment, global value chains.*

Аннотация. *Статья анализирует развитие теорий многонациональных предприятий (МНП) от первых пионерных работ С.Гаймера и до современных подходов к изучению этих институтов. Особое внимание уделяется показу одной из исследовательских школ, которая изучает фрагментацию международного производства и глобальные цепочки создания стоимости (ГЦСС). В этом контексте рассматриваются различные концепции анализа современных глобальных цепочек МНП, в частности, теория торговли по задачам и макроэкономический подход оценки эффектов фрагментации.*

В статье аргументировано, что понятие «международное производство МНП» и ГЦСС взаимосвязаны, хотя и не тождественны. Иногда такие понятия используются как синонимы, но они характеризуют современный процесс интернационализации производства с разных точек зрения. Раскрыты различные типы организации глобальных цепочек создания стоимости, в частности, при горизонтальной и вертикальной интеграции производства. В рамках таких сетевых систем многонациональных предприятий существуют сложные иерархические отношения между отдельными участниками и звеньями. Технологическое деление производства на отдельные фрагменты требует от МНП использования не только собственных акционерно контролируемых филиалов, но и привлечения офшоринговых фирм-партнеров.

Ключевые слова: *многонациональные предприятия, фрагментация международного производства, прямые иностранные инвестиции, глобальные цепочки создания стоимости.*

Introduction

The latest two decades are marked by radical change in international production of multinational enterprises (MNEs). This change pertains to organization of value creation and forms for its control [1, p.225-226]. It covers production, institutional and organizational structure of MNE organizing their production in form of global value chains (GVCs). The process of value creation is splitting into the increasingly narrow functional phases, or segments of international production of commodities and services. This change in the global operation of MNE is referred to as *fragmentation of international production* in economic literature [2, p.1978-1980]. This “clipping” of international production in MNE occurred first in electronics, IT industry, electrical industry and car making. Later on, the fragmentation spread on other manufacturing and services sectors: chemical and pharmaceutical industries, mechanical engineering, business and financial services. Today, hundreds of thousands of companies across the world are engaged in GVCs. Some of the countries could already feel significant effects from fragmentation of international production. They could gain additional advantages and expand their export capacities. Other countries have just started the rapid

connection to MNE production networks, still other face considerable problems related with their engagement in this process.

Theoretical approaches review

Beginning with the pioneer papers of S.Hymer that actually initiated the study of FDI and MNEs as a new special area of economic theory in 60-70s of the XX century, the issue of direct control or specific assets of international firms was considered in various aspects [3]. S.Hymer was among the first to draw attention to the need of distinguishing between foreign direct and portfolio investments, based on the criteria of direct control over foreign assets. Such control is required for the company, engaged in international investment, primarily to overcome the competition of other foreign enterprises and companies of the country, where the capital is exported.

R.Vernon analyzed the emergence process of international firms and their networks of enterprises through the study of new product introduction into the market and its life cycle. He tried to prove the correlation between the evolution of cross-border exchange and international production of commodities and the phases of their life [4, p.190-207]. The product life-cycle model gave a scientific credence to the hypothesis that at the mature product stage international firms carry out direct investments mainly in the industrialized countries and organize the production of commodities in its affiliates for sale on local markets. At the standardized product stage the cost-related motives lead to the search for a new location of production – with lowest possible wages. The new direct investment flows occur and the production is transferred to the developing countries with a current demand for commodities in the bargain (newly industrialized countries). Oligopolistic competition loses its force and the delocalization of production can be carried out not only in the form of direct investment, but also through the sale of license or subcontract [5, p.255]. Further empirical verification of the product life-cycle theory and study of the situation on the example of individual industries (electronic, oil industry and others) revealed a specific models of the strategy and features of investment by MNEs.

Within the frame of industrial organization theories the study of internal (intrafirm) operations and transaction costs also contributed to better understanding of the nature of international corporations. M. Casson, P. Buckley and R. Caves argued for the need of analysis of the international production by MNEs through the study of the effectiveness of transactions between the separate production units most insistently [6, p.32-66; 7]. An important component of the theory is the introduction of the concept of markets internalization (exchange), resulting in a reduction of "expenditures for business" – transaction costs. The study of this issue has not still lost its relevance, especially in the context of the development of international production fragmentation and intra-firm trade.

Macroeconomic view of the process of FDI export, whether in the interpretation of K. Kojima and T. Ozawa, or in the context of the theory of capital-market imperfections of R. Aliber, also expanded the idea of the possible causes of internationalization and motives of firms to transfer production abroad. They attracted the attention of researchers to the nature of monopolistic advantages of MNEs, such as ownership of patents and special knowledge, the role of translation risks and exchange premium in determining of the capital flows directions, as well as trading strategies of these firms and their impact on the host country [8; 9].

The previously mentioned areas of researches of the international production became the basis of the formation of MNEs theory at an early stage of its development (60-80s of the XX century). Subsequently, many of these ideas were reflected in the new methodological approach to the study of capital internationalization reasons – the eclectic paradigm of J. Dunning [10]. The name of J. Dunning concept by itself says that it combines some elements of very different theoretical approaches to the study of MNEs. In this sense it is not a completely new theory. The eclectic paradigm attempted to offer a general approach to the study of reasons of international production growth by MNEs. The advantages of ownership,

internalization and location became its key categories. In terms of these categories J. Dunning studied why the firm is trying to retain full control over its assets abroad, why it does not transmit them to other companies through licensing agreements, as well as what determines the choice of affiliates location of international companies [11].

Although the eclectic paradigm does not give comprehensive answers to all the issues related to the emergence of multinational enterprises and the features of their modern practices, it gave systematic approaches to the study of many aspects of MNEs activities. In 80-90s of the XX century a large number of researchers studied the peculiarities of MNEs foreign operations in reliance on this methodology. However, at the beginning of the XXI century an increasing number of scientists began to use other research methodologies of multinational enterprises.

The evidence of new approaches to the determination of MNEs' essence became a development of the network theory of the firm. Ch. Bartlett, S. Ghoshal among the first offered to treat the international firm as a network of various structural units. The network character determines the key difference between MNEs and national firms, and hence can be considered as the distinguishing feature of such firms [12]. MNEs network theory focuses on the fact that the greatest competitive advantage of these firms is creation of a complex system of long-term relationships with private and independent enterprises. M. Forsgren, U. Holm, U. Anderson consider the MNE affiliates to be the main source of its competitive advantage as they build deep and lasting relationships with local business partners, and with the related departments of the company. Special competitive assets of the firm can be created and saved because of these particular relationships [13, p.802]. An important element of MNE network structure are subcontracting suppliers linked to these firms through the non-equity control mechanisms. Therefore, the network theory focuses also on the distribution of non-equity forms of MNE operations in recent years. Namely this network of relationships is the main asset of the company and creates a synergy of industrial, financial and marketing effectiveness.

Another group of researchers (B. Kogut, U. Zander) consider the capability to accumulate, create and transfer knowledge to be a key characteristic of MNE [14, p.625]. The competitive advantages of MNEs are caused by features of their knowledge. This feature of MNE knowledge prevents the possibility of its imitation by competitors. There are certain characteristics of knowledge, such as uncertainty of cause-and-effect relationships, complexity and lack of a formalized knowledge that makes it extremely difficult to copy these specific assets. B. Kogut, A.Gupta, V. Govindarajan, N. Foss, U. Zander in their theory of the firm, based on knowledge, justify that MNE is a social institution that creates knowledge and organize its international transfer. They believe that the capability to create and transfer knowledge within the corporation is a key competitive advantage of MNE [15, p.768-790]. The adherents of this approach consider the concept of 'tacit' or 'embedded knowledge'. MNE is an extremely effective mechanism for the transfer of such tacit knowledge as compared to traditional external market mechanisms [16, p.340-345]. Tacit knowledge, opposed to conventional knowledge in form of patents, licenses, drawings, documentation, are a set of skills, practices and models of communication. They occur on the basis of long-term relationships with partners – customers, suppliers, subcontractors and other actors of MNE network.

Knowledge-based theory determines that the main feature of international firms is the possibility of the tacit knowledge transfer, which cannot be successfully transmitted through market mechanisms. The capability of the business units of company to assimilate knowledge is a crucial parameter of the knowledge transfer process within the corporation. The affiliates differ in their capability to implement innovations and this will significantly affect the nature and extent of the knowledge transfer from other business units of MNE. As corporate structure of MNE affects the process of knowledge creation and transfer Ch. Bartlett and S. Ghoshal offer to consider MNE as 'differentiated inter-organizational network. The business

units of MNE differ from each other, so these corporations can be defined as 'differentiated inter-organizational systems'. The key knowledge of MNE is created in its various branches and then moves within integrated business units of the company. Knowledge-based theory changes the traditional understanding of the role of affiliates in the innovation process. Instead of wide-spread stereotyped belief that main company (parent company) dominates in this process and subsidiaries play a secondary role, the theory, on the contrary, drew attention to the high competence and potential of foreign units of MNE in the creation of knowledge [17, p.803-805].

Although the earliest publications on these problems came out in 90s of the past century, later on useful theoretical analysis of global value added chains was provided by Antràs, Garicano, Rossi-Hansberg [18, p.31-34]. Grossman and Rossi-Hansberg offered the concept "trade in task", to describe fragmenting of production functions, and constructed a model of fragmented production, with each country taking on one function in production and sales of a commodity. Some of the researchers also studied theoretical background of off-shoring trade between countries with different factor endowment [19, p.793-794]. Another important issue concerned distribution of advantages from fragmentation, especially between industrially developed and developing countries [20, p.2-5].

Microeconomic approaches to studying GVCs involved analyses of patterns for commodity exchange between GVCs participants, the architecture of relations between chief flagman companies and subcontractors. It was shown that vertical integration determined network flows of commodities in GVCs. These flows have various trajectories, the so called upstream and downstream ones, and various impacts on value creation [21, p.3-6].

Issues of methodologies for studying GVCs, calculating the value added created domestically and abroad have gained special importance. It is believed that the higher is the measure of value added created abroad, the higher is the degree of the county's engagement in GVCs of MNE [22, p.2-7].

International production and GVCs

Fragmentation of international production triggers radical change in labor division at corporate and national level. This segmentation of production process has resulted in *global value added chains* (GVCs) of MNE. *GVCs refer to production processes involved in value creation, which are organized and controlled by MNE and entail international division of tasks and work.* Fragmentation of international production causes deep structural change in the contemporary global trade. The increasing numbers of countries and firms start specializing in selected phases, tasks or functions involved in value creation within GVCs, which shapes their new specialization in the global economy.

Two types of architecture for process of international production fragmentation can be distinguished by organizational model of MNEs. Vertically integrated MNEs tend to fragment production of finished goods through by-phase processing of raw materials, semi-finished or intermediate products. Examples of such vertically integrated value added chains can be found in oil refinery, electronics and electrical engineering, where MNEs organize international production system through successive technological operations [23, p.1-32].

Horizontally integrated MNEs and international firms with widely diversified production lines tend to build another model for fragmentation architecture. These sophisticated network systems have looser links to product processing technologies, with the considerably higher role of participants' specialization in functions involved in value creation or their competencies and unique assets. In another case, fragmentation of international production constitutes a more complex pattern of relations between networking enterprises, the so called "multi-cell organization" or "differentiated network". They involve exchange of components or services, which differs from supplies within vertically integrated production lines.

Although the fragmentation process is organized and controlled by MNEs, its participants, apart from MNE affiliations, are subcontractor partners and market agents. Also, non-equity participants of the fragmented process of value creation can build their own subsystems for international production, meaning that they can also transform into MNE. This results in building up the multi-tier architecture of production links engaging hundreds of thousands of small or medium companies and suppliers. For example, fragmented production systems at leading car making MNEs include 3 to 4 tiers of parts suppliers, each covering great numbers of enterprises.

GVCs of flagman MNEs can often cooperate and work together to fulfill selected functions or tasks. This is clearly manifested in the so called "strategic alliances". Much more often, a strategic alliance is set up by two leading MNEs, to address strategically important issues, such as R&D, standardization or innovation. It entails building up very extensive and sophisticated networks of production, R&D and distribution entities exchanging information, competencies, services or products.

Various terms and concepts are used in economic literature to characterize organizational, technological and spatial aspects of the complex international architecture for MNEs production system: supply chains, outsourcing, off-shoring, global value chains, production sharing, vertical integration, fragmented production. Although these terms refer to global production networks, they put emphasis on essential features of value creation process, labor division and networking of international production participants.

The concept of fragmented production provides for the most comprehensive characteristic of the meaning of change in international production in MNEs: it covers organization, technology and spatial dispersion of the production process. As mentioned earlier, fragmentation of international production means physical split of the value creation process into phases or segments. These fragments of production process are spatially dispersed and located wherever the optimal combination of production factors occurs. Sometimes the term "production sharing" constitutes its synonym, because it also emphasizes that value (product) creation process is split into phases. Therefore, sometimes authors use it to characterize technological change in contemporary MNEs.

Contrary to the above mentioned terms, the concepts of outsourcing and off-shoring characterize ultimately different systems of international production. The key analytical criterion for this characteristic is whether value added is created by enterprises controlled through shareholding or by subcontractors who are MNE partners. Therefore, these categories show external (relative to the corporate network of MNEs affiliations) mechanisms for value creation process, originating from non-shareholding forms of relations between MNEs. In most part of international production systems in MNEs, external subcontractor partners have great significance as suppliers of parts, components or services. Sometimes their numbers exceed the ones of controlled participants of fragmented production. The term "off-shoring" emphasizes that external sources of value added cover enterprises located abroad.

The concepts of GVCs and supply chains are nearly equal by interpretation. In economic literature, they are often used as synonyms to illustrate the form for organization of value creation in production system of many MNEs. They characterize the organizational structure of production at contemporary MNEs, where each phase of the chain uses the value created at its previous phase and increase it to the extent depending on factor endowment of a country.

A large part of GVCs and supply chains is built by vertical integration of production and technological process. Therefore, the term "vertical integration" shows technological character of fragmentation and directions of networking flows within GVCs. It should be noted that the term "vertical integration" is narrower than the concept GVCs or fragmentation of production. Only part of fragmented international production systems and, respectively, GVCs is built by vertical integration. The other part, which is rapidly growing, consists of networking fragmented systems not linked to vertical integration.

The term "fragmentation of production", therefore, shows the essential meaning of change in international production systems of MNEs. It is used in the current theoretical literature devoted to foreign direct investment and MNEs. The term "global value chains" is the most widespread in business literature, including UNCTAD studies. It characterizes three main aspects of current MNEs operation: (i) global character of production activities involved in value creation; (ii) spatial fragmentation of value creation into segments and tasks; (iii) chain link of production process, from product development to product sales and after-sales service.

The concepts of international production in MNEs and GVCs are, therefore, interlinked, although not equal. Sometimes they are used as synonyms, but they characterize the contemporary process of production internationalization from different perspectives. The concept of international production in MNEs refers to the whole production system in a flagman corporation. It underlines the character and scales of cross-firm relations linking clusters of firms in larger global economic groups. The notion of "chain" reflects the vertical sequence of events resulting in supply, consumption and technical services of products. Here the emphasis is made on product approach. GVCs are very mobile and dynamic. Their reconfiguration and relocation of selected production fragments to other countries occurs along with the changing comparative advantages of countries.

Large diversified MNEs can have international production systems that cover several value added chains. While some of them can feature large-scale fragmentation of production processes, another can have far lesser one. By analogy, while some of the chains within international production systems can have large spatial dispersion (can be of the global scales), another can have far lesser one, covering a region or even neighboring countries.

Sometimes GVCs can have comprehensive character and cover selected fragments of various international production systems. For example, when several flagman MNEs set up a strategic alliance, their GVCs will overlap and have common participants. This can occur in manufacturing of related products or various classes of the same products. For example, a global producer of a certain type of parts can have own international production system and gain the status of a flagman MNE in this niche. However, its GVC can be a supplier of parts to international production systems of other MNEs manufacturing various brands of finished products. But because the MNE supplying parts have no impact on the overall management of GVCs in manufacturing MNEs, it does not coordinate the whole value creation process. In this case, the MNE supplying parts constitutes a segment in a larger GVC, as it supplies components for manufacturing of finished goods [24, p.2-4].

The largest global manufacturer of electronic components, MNE Foxconn, is the principal subcontractor of MNE Apple. The major part of Apple output, such as iPhone, iPad, is assembled in Foxconn factories. At the same time, GVCs of Foxconn integrate with international production systems of other leading MNEs. Foxconn is the principle subcontractor for manufacturing of cameras for Canon, games consoles for Sony, cell phones for Motorola, motherboards for Intel and components for other MNEs (see Figure 1 below).

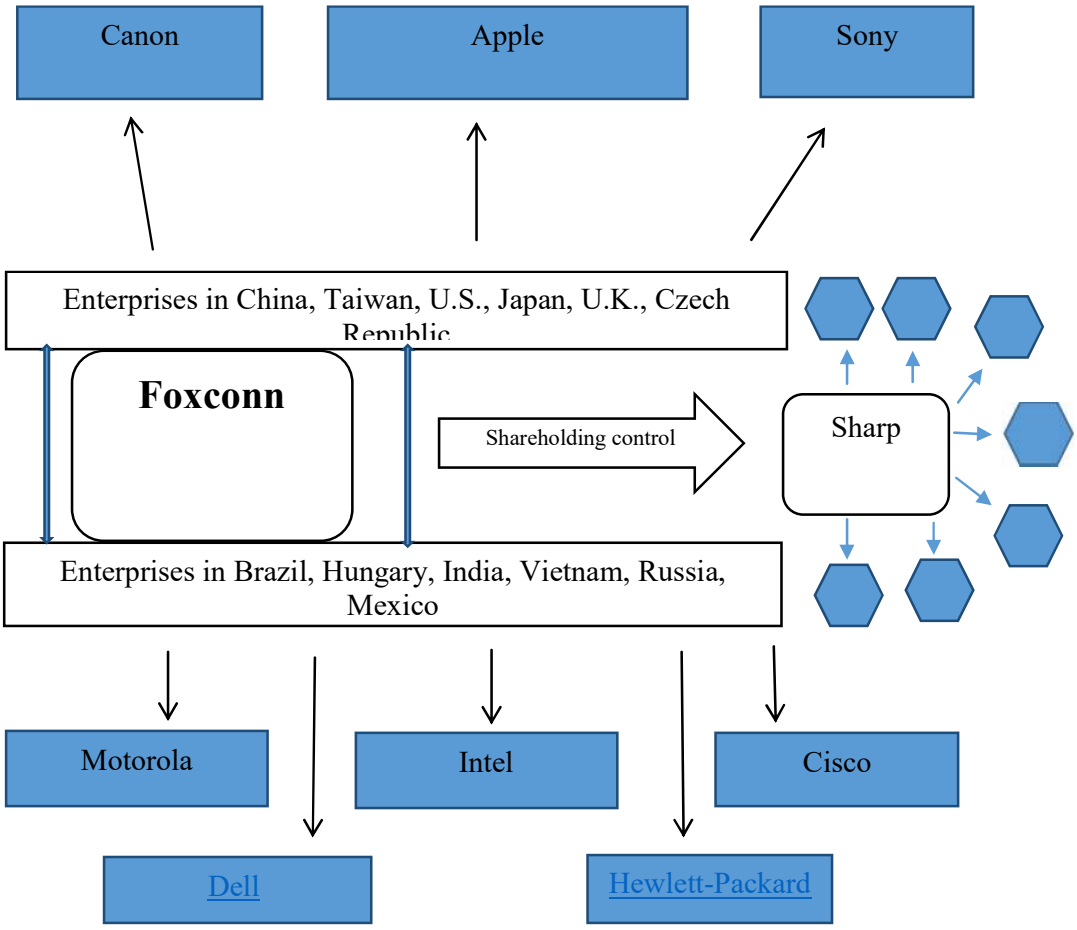

Figure 1. International production system of MNE Foxconn

Three types of flagman MNEs are distinguished by operation strategy and organization of global production networks. The first type is brand leaders (such as IBM, Compaq or Dell), externalizing rapidly their international production systems through including autonomous supplies. These MNEs build GVCs to reduce costs and differentiate products. They organize and control the whole process of value creation, coordinate business of numerous subcontractors and require high productivity and quality from them. The second type is contracted producers (such as Foxconn, Solectron or Flextronics). They are global leaders in manufacturing parts and components, and they build their own international production systems and global chains of supply for servicing MNEs that are brand leaders.

International production of MNEs is, therefore, fragmented in organizational and technical form of GVCs. Fragmented international production systems have sophisticated institutional structures. Various entities engaged in GVCs can be distinguished by various classification criteria. By stock ownership, GVCs include participants controlled by shareholders, subcontractors and autonomous market agents. By value creation function, GVCs include producers of intermediary or finished products and services, and firms with key supplementary functions of sales, logistics or client services. This institutional structure of GVCs puts strong emphasis on management, control and coordination of all the segments. This control is exercised by flagman MNEs that are brand leaders acting as main organizers and initiators of GVCs.

Conclusions

Advantages from participation in network production of MNEs for host countries' economies are essentially conditional on types of GVCs. Their heterogeneity results from not only MNEs strategy, but from the subject of production process. A country participating in global networks of mass-scale manufacturing of consumer goods (household electronics, apparel or footwear) has an opportunity to increase employment and social standards or to build export capacities. However, this type of fragmented production fails to offer significant advantages in innovation.

Extracting sectors of the economy also generate far lower value added, especially when domestic firms specialize on primary phases of processing oil and other mineral resources. Practices of many countries engaged in agricultural chains of value added give evidence of far lower advantages gained by producers of primary agricultural products compared with phases of manufacturing, retail trade and marketing. Therefore, economic policies in a major part of countries dependent on primary commodities seek for stimulating additional processing of products in order to create higher value added.

Industrially developed countries are actively engaged in high tech product chains requiring massive innovation, participation of research centers or laboratories, and high performing R&D.

References

1. Buckley P. J. Internalization Thinking: From the Multinational Enterprise to the Global Factory / P. J. Buckley // International Business Review. – June, 2009. – Vol. 18. – № 3. – P. 224 – 235.
2. Grossman G. Trading Tasks: A Simple Theory of Offshoring / G. Grossman, E. Rossi-Hansberg // American Economic Review. – 2008. – Vol. 98. –№5. – P. 1978 – 1997.
3. Hymer S. The International Operations of National Firms: A Study of Direct Investment / S. Hymer. – MIT Press, 1976. – 253 p.
4. Vernon R. International Investment and International Trade in Product Cycle / R. Vernon // Quarterly Journal of Economics. – 1966. – Vol. 80.– № 2 – P. 190–207.
5. Vernon R. The Product Cycle Hypothesis in a New International Environment / R. Vernon // Oxford Bulletin of Economics and Statistics. – 1979. – Vol. 41. –№ 4. – P. 255–267.
6. Buckley P. The Future of Multinational Enterprise / P. Buckley, M.Casson. – London: Macmillan, 1976. – P. 32–66.
7. Caves R. Multinational Enterprise and Economic Analysis / R. Caves. – Cambridge University Press. – 1996. – 270 p.
8. Kojima K. Direct Foreign Investment: A Japanese Model of Multinational Business Operation / K. Kojima. – Bechenchem. – 1978. – 265 p.
9. Aliber R.Z. A Theory of Foreign Direct Investment, / Aliber R.Z // in: The International Corporation, edited by Charles P.Kindleberger. – Cambrige, Mass. MIT Press, 1970.
10. Dunning J. The Theory of International Production / J. Dunning // International Trade Journal. – 1988. – № 3. – P.19.
11. Dunning J. The Explaining International Production, London,1988.
12. Bartlett Ch., Ghoshal S. Managing across borders: The transnational solution / Ch. Bartlett, S. Ghoshal. – Boston, MA: Harvard Business School Press, 1989. – 328 p.
13. Andersson U., Forsgren M., Holm U. Balancing subsidiary influence in the federative MNC: a business network view / U. Andersson, M.Forsgren, U.Holm // Journal of International Business Studies. – 2007. –Vol. 38. – № 5. – P. 802–818

14. Kogut B. Knowledge of the Firm and the Evolutionary Theory of the Multinational Corporation / B.Kogut, U. Zander // Journal of International Business Studies . – 1993. –Vol. 24. – P. 625–646
15. Gupta A. Knowledge Flows and the Structure of Control within Multinational Corporations, / A. Gupta and Vijay Govindarajan // Academy of Management Review. – 1991. –Vol. 16. – P. 768–792.
16. Foss N., Pedersen T. Organizing knowledge processes in the multinational corporation: an introduction // Journal of International Business Studies. – 2004. – Vol. 35. – P. 340–349.
17. Andersson U., Forsgren M. and Holm U. Balancing subsidiary influence in the federative MNC: a business network view // Journal of International Business Studies. - 2007. - Vol. 38. -№ 5.- P. 802-818.
18. Antràs P. Offshoring in a knowledge economy / P. Antràs, L. Garicano, E. Rossi-Hansberg // Quarterly Journal of Economics. – 2006. – Vol. 121. – № 1. – P. 31 – 77;
19. Kohler W. Aspects of International Fragmentation / W. Kohler // Review of International Economics. – 2004. – № 12. – P. 793 – 816;
20. Baldwin R. Offshoring: General equilibrium effects on wages, production and trade / R. Baldwin, F. Robert-Nicoud // NBER Working Paper 12991. – 2007. – 24 p.
21. Sturgeon T. Measuring Global Value Chains: Intermediate Goods Trade and Structural Change in the World Economy / T. Sturgeon, O. Memedovic // UNIDO Working Paper. – Vienna, 2010. – 31 p.
22. De Backer K. Mapping Global Value Chains / Causes and Consequences of Globalization: Final WIOD Conference / K. De Backer, S. Miroudot // Working paper. – Groningen, 2012. – 19 p. [Електронний ресурс]. – Режим доступу: http://www.wiod.org/conferences/groningen/Paper_DeBacker_Miroudot.pdf
23. Banga R. Measuring Value in Global Value Chains. / R.Banga *// UNCTAD Working Papers*. – Vienna, 2013, – No 8. –34 p.
24. Gereffi G. Global Value Chain Analysis: A Primer / G.Gereffi, K.Fernandez-Stark K. // Durham: Center on Globalization, Governance & Competitiveness, Duke University, – 2011, – 40 p.