

GLOBAL VALUE CHAINS AS THE MAIN INSTITUTE OF CONTEMPORARY CREATIVE BUSINESS RELATIONSHIPS

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Abstract. Research into the creation and functioning of global value chains helps today's economists, business analysts, and policy makers make informed decisions to improve the global economic landscape and ensure sustainable development for all countries. The article examines the influence of global value chains on the world economy. The work uses the method of the unity of historical and logical analysis. Methods of comparative, causal and functional analysis, principles of system analysis, dialectical approach in the study of processes and phenomena are also used. The concept of the "smile curve" was analyzed to highlight the unevenness of the distribution of added value in different segments of the production chain. They point out that GVS often concentrate maximum value in research and development and post-production services. A study of the "sad smile" phenomenon highlighted that industries moving from mass production to personalization through artificial intelligence technologies may experience cost reduction in the initial and final stages of production. At the same time, companies located in the country of origin receive the greatest added value. The article focuses on the challenges that developing countries face in trying to get out of the "middle-income trap." Such challenges include tariff barriers, concentration of patents on knowledge and financing in these countries. The article argues that the GVS institute contributes to the appropriation of imperialist rent by the countries of the center at the expense of the countries of the periphery. Global chains enable the capital of the North to exploit the cheap labor of the South, keeping their incomes low and affecting their ecology. Recommendations are proposed for effective regulation and redistribution of added value to achieve sustainable global development.

Keywords: globalization, chain, value, added value, international corporations, international business, "crooked smile".

JEL Classification: F16, O5

Formulas: 0; **fig.:** 2; **tabl.:** 1; **bibl.:** 14

Introduction. Modern international trade, production and investment are increasingly organized according to the principle of global value chains (GVS). Creating the value of a product is a long process from the development of the concept to the sale to the end consumer and the provision of after-sales service. The development of communications and transport allows companies to optimize costs by locating production stages in different locations.

Research on the topic of global value chains is extremely relevant and important today. In today's world, where globalization and international economic interaction have become an integral part of daily life, understanding and analyzing how the value of goods is formed in global chains is of great importance.

Focusing on the division of labor, technological innovation, rent appropriation, and other aspects, the study of global chains helps to reveal the causes of economic inequality between countries and contributes to the development of strategies to address these issues.

Furthermore, in the context of contemporary challenges such as pandemics, climate change and economic turbulence, understanding global value chains becomes key to developing sustainable and effective strategies for managing production and resource allocation. Thus, research on this topic helps today's economists, business analysts, and policymakers produce informed decisions to improve the global economic landscape and ensure sustainable development for all countries.

Literature review. The work is based on the legacy of the labor theory of value of the classical school of political economy, the foundations of which were laid by A. Smith, J.B. Say, D. Ricardo. This approach was further developed in K. Marx's theory of surplus value.

G. Jereffi, T. Sturgeon and D. Humphrey dealt with various aspects of the formation of the institution of global value chains. In particular, they identified different types of chain construction and distribution of power within them. The foundations of the so-called "smiling curve" model, which reflects the process of creation and distribution of added value within the GVS, were laid by S. Shi, later developed by R. Baldwin, R. Wade, J. Wong, K. Degain, B. Meng, R. Mudambi, A. Rungi, S. Evenett. R. Brenner, M. Dindale, D. Humphrey, H. Schmits also investigated the mechanisms of distribution of added value within the GVS.

Aims. The purpose of the work is to study global value chains as the main institution of modern creative business relations.

Methodology. The work uses the method of the unity of historical and logical analysis. The declared subject area of research and the problems of the work provide for a cross-functional approach. Methods of comparative, causal and functional analysis, principles of system analysis, dialectical approach in the study of processes and phenomena are also used. The methods of scientific generalization are applied.

Results. The term "value chain" was first used in 1985 by M. Porter in business management research (Porter, 1985). He formulated this concept as a basis for developing a corporate strategy to increase the company's competitiveness. To do this, he suggested evaluating the company's activities as a set of business operations, each of which can be a competitive advantage of the company. When the activities of different departments are diversified, the goals and objectives of one department may

conflict with the goals and objectives of other departments or the entire company. From the point of view of the value chain, all activities must be coordinated to ensure the optimal functioning of the economic entity as a whole.

The most commonly accepted definition of global value chains in the literature is: "A global value chain or GVC consists of a series of stages related to the production of a product or service that is sold to consumers, each stage adding value, and at least two stages are produced in different countries . A company participates in GVS if it produces at least one stage of GVS " (Antras, 2020).

Value chains can take many forms. In their study "Spiders and Snakes: Offshoring and Agglomeration in the Global Economy", R. Baldwin and A. Venable grouped global value chains according to the principle of production and trade relationships between the links of these chains. They proposed a vivid typology that they called the "Zoo of Global Value Chains" (Baldwin, et al., 2013) (Figure 1).

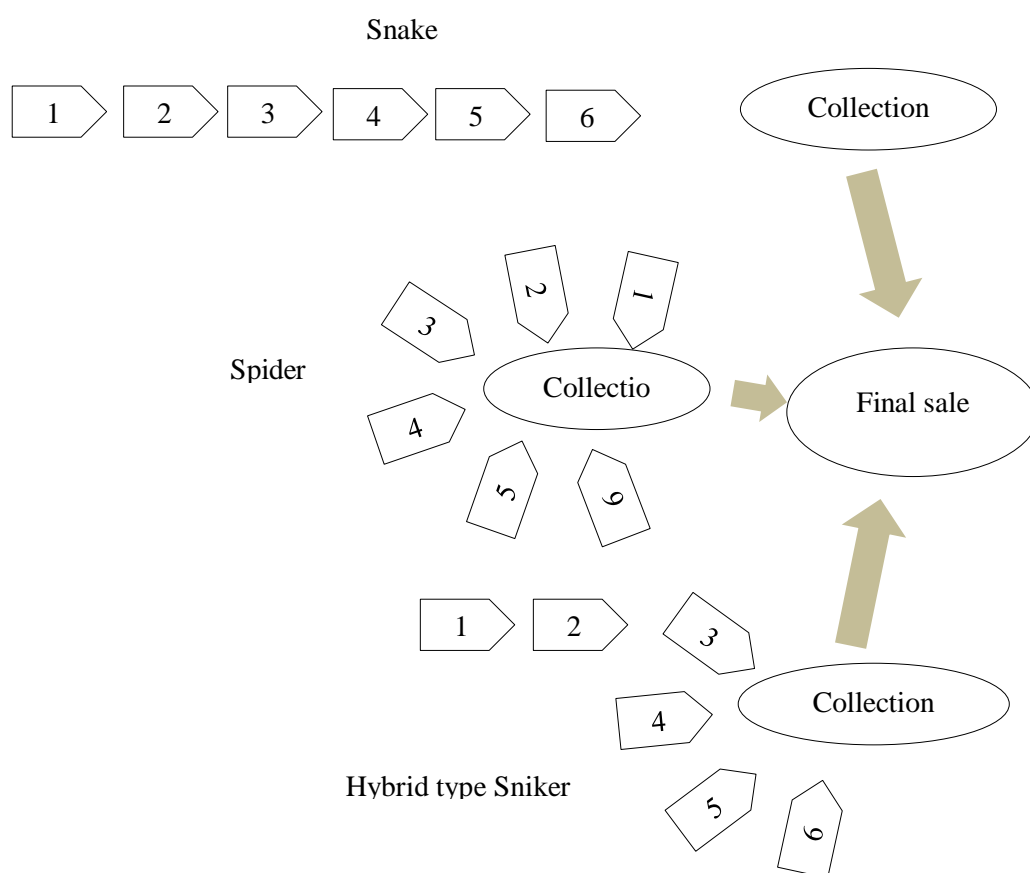


Figure 1. "Zoo" of global value chains

Source: compiled by the author based on data from R. Baldwin, A. Venable [3]

According to this typology, the authors distinguished three types of "animals":

1. "Snake", in which the product sequentially arrives at the enterprises of the production cycle, goes through one production stage after another, and the final stage is the assembly, after which the finished product reaches the final customer.

2. "Spider", where the enterprise engaged in final assembly is located in the center of production. The details of the final product from different companies arrive independently of each other, as if forming a spider's legs on the diagram.

3. Hybrid type Sniker, in which there are elements of two pure types of GVS. For example, cotton fabric entering a shirt factory is produced according to the "snake" principle, but the accessories to the finished product are added according to the "spider" principle, since it is not part of the technological chain of fabric production. Silicon for the production of computers is also produced in a "snake" chain, but the main added value of a computer is made by assembling different parts that have arrived from different enterprises.

Equally important is the offshoring strategy as the basis of global value chains. The transfer of production from developed countries to countries with developing economies does not always take the form of foreign direct investment, and recently this form of cooperation is becoming less common. Having grouped numerous outsourcing strategies, V. Milberg and D. Winkler divided them into four groups, in which they reflected options for managing global value chains and the nature of the products themselves (table 1) (Milberg W., Winkler D. 2011).

Table 1. Outsourcing strategies

		Procurement management of HLSV	
		Market purchases	Many national companies
Product	Intermediate	2	1
	Terminal	3	4

Source: compiled by the author based on the data of V. Milberg and D. Winkler [9]

Therefore, groups 1 and 2 included intermediate types of products, and final goods were included in groups 3 and 4, respectively. Companies that choose the path of opening their own enterprises abroad and thus create transnational corporations gain maximum control over the links of global value chains and all added value, but also bear the highest risks, including reputational risks, when using labor in their own enterprises in countries, which are developing. On the other hand, by choosing to trade with companies managed by local entrepreneurs, the parent company gets rid of not only investment costs, but also all kinds of local risks. With such a strategy, the purchasing company sets prices that allow it to minimize production costs and increase profits. This type of interaction in global value chains has become increasingly common in recent years in production chains of low- and medium-technology goods, where there is no need for highly skilled labor.

G. Gereffi, D. Humphrey and T. Sturgeon proposed a typology of management of global value chains depending on the degree of mutual integration and the level of control of the parent company over contractors. At one pole of this typology was vertical integration, where the parent company has full control over its subsidiaries. At the opposite pole was outsourcing under conditions of free market relations (Gereffi G. 2005).

Figure 2 illustrates five options for managing global value chains within the specified dichotomy. Rectangles represent firms, and their size indicates the strength of the bargaining position compared to the other party. The arrows show the direction and degree of business intervention in the activities of partners, which can be

supportive, for example, to develop "win-win" scenarios in the long term, or predatory, aimed at extracting maximum profit in the short term.

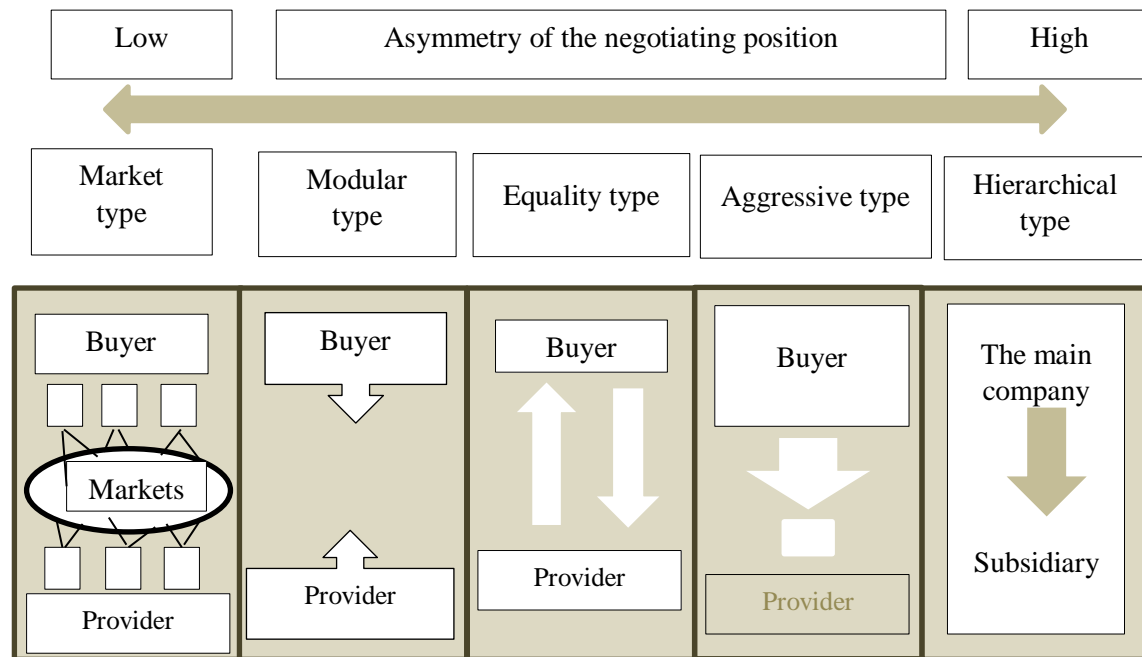


Figure 2. Typology of global value chains

Source: Compiled by the author based on data from Gereffi G. [7]

1. The market model of global value chain management: the main idea: market interaction is limited to the purchase and sale of goods, without leading to the control of one company over another. The central control mechanism is the price.

Characteristics:

- connections between activities in the value chain are not very "thick".
- the information to be exchanged and the knowledge to be shared are relatively simple.

2. Modular value chains: the main idea is the most marketable among the three network-style GVS management models.

Characteristics:

- suppliers assume full responsibility for technological processes, often using universal mechanisms to distribute investments across a wide customer base.
- connections are necessarily more dense due to the large volume of information passing through intercompany connections.
- ways of communicating information can prevent interactions between value chain partners from becoming too close.

3. Equal value chains: the main idea is interdependence regulated through reputation, social and spatial proximity, family and ethnic ties, etc.

Characteristics:

- interaction is based on equality and depends on trust and reputational effects.
- typical examples can be found in "industrial areas", but trust and reputational effects can also operate in territorially distributed chains.

- building trust and interdependence in equal GVS requires a lot of time, and the costs of transition to new partners are usually high.

- close interaction and knowledge sharing are supported by a deep understanding of the partners of each other, but, unlike codified schemes that allow the creation of modular chains, these "shortcuts" are usually non-standard and difficult and long to recover with new partners.

4. Aggressive value chains: The basic idea is that small suppliers are usually dependent on larger, dominant buyers.

Characteristics:

- dependence on the dominant firm leads to high switching costs for suppliers who are in "prison".

- these chains are often characterized by a high level of monitoring and control by the leader.

- asymmetric power relations force suppliers to interact with their customer in customer-specific ways, resulting in close, specific ties and high communication costs.

5. Hierarchy: the main idea is vertical integration, i.e. "deals" take place within one firm.

Characteristics:

- Management control is the dominant form of management.

Indeed, there are many interaction options within this classification. For example, large retail chains can buy products from third-party manufacturers and sell them under the manufacturer's brand or under their own brand, as are the so-called "non-production manufacturers" (Nike, Calvin Klein, Fisher-Price). Distribution networks often do not establish impassable barriers for suppliers, which allows them to receive offers from competing companies and, accordingly, reduce their own costs. On the other hand, there are examples of closer contractual cooperation between firms where they share internal financial and technical information for mutual benefit, including technology transfer to suppliers from developing countries and training.

In another work, G. Gereffi divided global value chains into beneficiaries and managers of the value chain. According to this typology, he distinguished producer-led and buyer-led GVS (Gereffi, 1994). Shopper-led CGHSs are typical of consumer goods such as clothing or toys, where large retail chains play a major role. In this case, the main company does not produce goods independently, but is engaged in marketing and sales of products to the end consumer. GVS, in which the manufacturer is the main chain, are more common in high-tech industries, for example, among manufacturers of cars or airplanes. Although such manufacturers outsource the production of individual elements, they retain the R&D and sales of final products. The main companies of both types of GVS are in most cases located in developed countries and receive the highest added value, while the chain links with the lowest added value are usually transferred to developing countries.

Although global value chains can be divided into producer-driven and buyer-driven, in practice there are many exceptions and deviations from this rule. Now, taking into account the active development of services in the field of accounting, software and marketing, some GVS are outsourcing these functions to third-party companies.

Recently, some researchers have commented on the classical approach to understanding the management of GVS. Some scientists, such as M. Dindale, J. Clegg and H. Voss, believe that the management of GVS is conditional. According to their view, a particular international corporation does not have a strong negotiating position with all partners in the value chain. Rather, it may have an advantageous negotiating position at certain points while being in a less advantageous position at others. For example, a large and resource-rich international corporation may have an advantageous position in negotiations with some of its suppliers, but at the same time find itself in a less advantageous position in negotiations with a potential recipient country where it wishes to operate (Dindial M. 2020).

Walmart is a good example to illustrate this point. This world's largest multinational retail chain is often criticized for putting pressure on many of its suppliers to cut costs (Bloomberg, 2017). Such pressures have been cited as the cause of the bankruptcy of Vlastic, an American pickle producer (Crook, et al., 2017). The balance of power shifted in the opposite direction when Walmart tried to enter the Indian retail market by imposing conditions favorable to its operations. For retail operations in India, companies were required to source at least 30% of their goods from local GVS. Despite the efforts, Walmart announced in 2013 that it was abandoning any immediate plans to open retail stores in India. A key factor in this decision by Walmart management was dissatisfaction with Indian lawmakers' reluctance to compromise on regulation (Forbes, 2013).

The distribution of added value within the GVS is uneven. The greatest added value is concentrated at the opposite ends of the chain (Alcacer J., Oxley J., 2014). Due to the U-shaped shape of the graph of added value in GVS, it was called the "crooked smile". Within this curve, activities can generally be considered in five categories:

- pre-production services: R&D, architectural and engineering services. On this segment, the curve is directed downwards.
- Manufacturing activities related to the production of primary, intermediate and final goods. In addition to manufacturing itself, the three mentioned segments include standardized processes and services that are implemented on a mass production scale. This segment is in the middle and occupies the lowest position.
- Post-production services: marketing, advertising, distribution and retail. The curve is directed upwards.

Thus, the idea of a "crooked smile" arose as a result of an analysis of the profitability of various stages of the value chain at the Acer company, which is engaged in the production of hardware and electronic equipment. This concept indicates an uneven distribution of added value along the entire production chain, where the ends of the chain (research and development and post-production services) usually have the highest added value.

Research conducted on the basis of this concept confirms that for many GVS, regardless of industry affiliation, this "smiley" curve reflects reality. It can be used to analyze the profitability and strategies of companies targeting certain segments of the value chain. However, it should be taken into account that such empirical data may influence the application of transfer pricing in multinational corporations, which may expose the statistics.

In the work of R. Baldwin and S. Evenett, concerns are expressed about the possible reduction of added value at the stage of production of intermediate components over time, while the stages of pre-production and post-production activities may create more and more added value. In other words, it is possible that the appropriation of added value by the owners of GVS in developed countries will increase at the expense of a decrease in the share of added value in developing countries.

Analyzing the "crooked smile" phenomenon, economists, empirically, came to the conclusion that the concentration of the maximum added value occurs in those segments of the value chain that are located in the country of origin of the GVS. At the same time, companies carrying out this activity can be integrated branches of international corporations or work independently.

Research in recent years indicates the existence of the "sad smile" phenomenon within the value chain. This means that the value added curve has downward sloping ends. Examples of such graphs are the automotive industry, which marks the transition from mass production of identical cars to the personalization of each car through artificial intelligence and digital technologies. Similar changes are also noted in the Mexican automotive industry. In the case of a "sad smile", as in the case of a "happy one", the maximum added value is obtained by companies located in the country of origin of the value chain.

However, most industries are characterized by a classic "happy smile", where the maximum added value is concentrated at the extreme ends of the value chain.

However, the classic "cheerful smile" is characteristic of most industries. In fact, as already noted, a significant gap in the allocation of added value in value chains is associated with the movement of labor-intensive stages of production from developed countries to countries where labor is cheaper. At the same time, the science-intensive and capital-intensive stages remained in developed countries. Countries specializing in science-intensive pre-production activities receive high economic rent, which determines high profits and allows paying higher wages. In general, this leads to the assignment of higher added value. Therefore, because companies in developed countries have under their control a significant share of intangible assets - whether in the form of legally justified rents, as in the case of patents, copyrights and brands, or in the form of unique organizational structures - they specialize in high value-added operations in pre-production segment of the value chain (Mudambi R., 2008). This led to a relatively clear specialization of countries and a division into service economies and production economies. An exit for countries at the bottom of the "smile" beyond the existing specialization to obtain more added value seems difficult to achieve for a number of reasons.

Very few countries have changed from developing to developed in the last two centuries. This list includes less than ten countries such as Japan, Taiwan, South Korea, Hong Kong, Singapore and Israel. The growth of all but the first two occurs in the period after the Second World War. In a study by the World Bank (1960), 101 countries were classified as "middle-income countries" and only 13 of them reached the level of "high-income countries" almost 50 years later, by 2008 (World Bank, 2015). This very

low percentage, especially excluding islands and oil fields, gives meaning to the metaphors of the "glass ceiling" and "middle income trap" in the world economy.

R. Wade explains the difficulty of getting out of the "middle income trap" by three factors (Wade R.H., 2018):

1. Tariff and non-tariff barriers that developed countries create to make it difficult for developing countries to enter their markets.

2. Patents for knowledge and technology are concentrated in the hands of developed countries, which always leaves developing countries behind in technological progress.

3. Financing within developing countries. It manifests itself, on the one hand, in the growth of the financial sector, real estate and insurance companies, and on the other hand, in the desire of local corporations to maximize shareholder profits, which reduces private investment in the GVS (Wade R.H., 2018).

Discussion. So, in the modern world, the prices of goods are determined not by national, but by world markets and, in fact, are world prices. At the same time, labor prices differ several times depending on the country of origin. They are determined by the average standard of living in the country, the composition of the worker's consumer basket and the price level. In such conditions, the institution of global supply chains is a modern form of center-periphery relations and the appropriation of imperialist rent. It was formed as a result of the search by the capital of the Global North for opportunities to increase profitability, which was found in the cheap labor force of the Global South. The development of transport and communication technologies allowed global supply chains to take a dominant place as a form of international interaction. An analysis of the added value assigned by each of the countries participating in global supply chains shows that the countries of the center benefit the most, while the countries of the periphery, regardless of their place on the "smile curve", find themselves in a subordinate position. Possession of capital, enormous bargaining power, technologies and innovations determine the dominance of developed countries. Developing countries, putting the countries of the center as competing suppliers to monopsony, are forced to minimize costs, primarily for labor. This keeps their incomes low and makes it difficult to get out of the periphery. The countries of the center, through the mechanism of global supply chains, appropriate part of the value created by the labor of the periphery, so that it is the workers who bear the entire burden of unequal exchange. They also bear environmental costs that statistics do not take into account.

Conclusions. Global value chains not only shape the economic landscape, but also determine the level of development and differentiation between countries. It is important to pay attention to regulation and ensuring a fair distribution of added value to achieve sustainable and more equitable global development.

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