GLOBAL VALUE CHAINS AND ITS IMPACT FROM AN ECONOMIC GLOBALIZATION PERSPECTIVE

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Abstract
Global value chains (GVCs) are increasing during the past decade, thereby raising new policy challenges for many countries, regarding various fields, as trade, competitiveness, innovation and management of global systemic risk. Today, world economy is characterized by global value chains in which intermediate goods and services are traded in fragmented and dispersed production processes. Therefore, the study of global value chains adds to understanding the nature of today's geographically dispersed activities. In this article we try to analyze not only the evolution of value chains, but, in the same time, the changing features of this phenomenon in the last few years.

Key words: global value chains, fragmentation of production, economic globalization, value adding chain.

JEL Classification: F00, F60, F23, M00

I. INTRODUCTION

One of the concepts widely used in the specific economic literature is that of global value chains. This concept is increasingly used in the literature (World Bank, 2017 & WEF, 2019). In such a context, global value chains become essential dimensions of any analysis that falls within the scope of the international economy. The first references to this concept were reported in the mid-1990s. Thus, among the best known promoters of this concept are Gary Gereffi and Miguel Korzeniewicz (Gereffi & Korzeniewicz, 1994: 93-143), who, inspired by the success of the economies of Southeast Asia and some specialized resources on fast pace developing countries, have developed a whole theory dedicated to global value chains that includes all factors involved in the production of goods and services, from their design, through intermediate inputs, marketing and distribution, to reaching the final consumer.

As is well known, due to the amplification of the process of globalization of the economy, states have become increasingly interdependent (see also Postelnicu & Postelnicu, 2000: 97-174) in terms of flows of goods, services and capital. In recent decades, the projection of national production systems abroad, through foreign direct investment and subcontracting, has increased the degree of integration and give new dimensions to economic analysis. One of these dimensions refers to the analysis of the globalization process through the prism of global value chains. Today, international trade can no longer be seen only as a multitude of individual transactions, but as a system of contractual agreements that connects companies in real chains of research & development, production and sales. These value chains bring together not only large multinational companies, but also a huge number of smaller brands (OECD, 2017) that play a significant role in providing guidance on the range of goods to be produced, how could it be produced, and for whom it must be produced. As some economists note (Gereffi et. Al., 2001: 2), in an economy subject to the process of globalization, economic activity "is not only international as an ultimate goal, it is also global as a form of organization". Or, as other scientists put it (Dicken, 2015: 2) "[globalization] is an inevitable and inexorable process of broadening the geographical area of economic activities and deepening functional integration between them" (In a previous edition of his book, Dicken referred to globalization as implying a certain degree of functional integration between geographically dispersed activities [Dicken, 1992: 1]). This means that, in recent decades, there has been a shift in focus from the production of goods itself, to a whole system of activities brought together in international value chains, which thus increase the number of those who earn from this process and reduces the number of losers. In addition, the spread of international processes leads to an increase in economic and social interdependencies between regions, rising the chances of success and reducing certain specific categories of risks to which producers / retailers are exposed.

The development of global value chains has also been accompanied by cost reductions, while facilitating access to the international market for many categories of industries, especially in developing countries. We consider, in this order of ideas, the way in which the economic actors from these countries manage to have access to the know-how, the competences and the managerial support of the big multinational companies. Moreover, as productive networks expand by fragmenting activities into different specific parts of one and the same product, many companies have now specialized in certain functions of value-added chains, such as design or marketing.
The value chains have evolved from the simplest, starting with the obtaining of the raw material and ending with the assembly of the finished product, including here the contribution of the different service providers. As a result, value chains cover a whole range of spatial steps (local, national, regional and global) operating in more and more states. From this point of view, value chains also have a supranational character, which sometimes makes it difficult to coordinate them globally (see also Dunning & Lundan, 2008: 211). On this basis, a new concept was promoted, namely the value-chain governance, starting from the finding that companies involved in such production networks can influence, directly or indirectly, through their decisions the activity other partners regarding the organization of production, their logistics or the marketing system (Gereffi et al., 2001: 4). Therefore, one of the current issues in the attention of researchers refers precisely to the forms that this global governance takes and its implications on the development of the economy in the future. In this regard, a number of questions remain about how the global coordination previously mentioned can be achieved. It is unlikely that all companies within such a value chain will act in unison. Each company, after all, is the bearer of its own interests and seeks to improve its competitive position within the network of which it is part. Also, one of the important issues concerns how these value chains fit companies in less developed countries. As a result, we try to find some answers to the issues reported in this section.

II. A Literature Review

In addition to Gary Gareffi (Gareffi, 1994), a professor at Duke University USA who, as mentioned above, is one of the pioneers of the concept of global value chains, this topic has been addressed by other researchers. Among such publications, we mention first, Cataneo’s study (Cataneo & Gareffi & Staritzer [eds.], 2010) which develops a broad analysis of value chains in the post-crisis period, with a special emphasis on opportunities for developing countries. The three authors point out (using a lot of edifying examples) that the crisis between 2008 and 2009 once again confirmed the strong economic interdependence between the states of the world. The financial crisis in the U.S. has spread all over the world, the main vector of its transmission being precisely the trade in intermediate products (Cataneo & Gareffi & Staritzer [eds.], 2010: 7). Thus, only in 2009 there was a massive contraction of global trade of -13% (Cataneo & Gareffi & Staritzer [eds.], 2010: XV), the most affected sector being durable goods. The very rapid transmission of the crisis was largely caused by value chains, as a consequence of the geographical fragmentation of production and the transfer of labor-intensive production processes to other, especially less developed countries, in their capacity as subcontractors.

Elms & Low also made a consistent contribution to the development of this topic (Elms & Low [eds.], 2013). These researchers have placed particular emphasis on the possibilities of measuring added value. The authors argue that today, any analysis of international trade and investment can no longer ignore global value chains, which tend to occupy a central place in contemporary economic currents. Moreover, their report begins with an analysis of the changing features of value chains (Elms & Low [eds.], 2013: 11 - 61) which clearly show some significant changes in this specific field, applicable on a global scale, likely to influence a number of indicators of international economic life. Dijk & Trienekens (Dijk & Trienekens [eds.], 2012) are on the same level, noting that they have focused their analysis on international value chains in agriculture. Particularly relevant is the volume that presents the implications of global value chains in a number of countries, especially in Asia, such as China (Yuqing [ed.], 2016). According to the author, modern international trade in manufactured goods is largely based on global value chains (Yuqing [ed.], 2016: 1). Consequently, they have integrated into the global economy as a kind of “invisible hand” (Yuqing [ed.], 2016: 1), where the creation of a finished product benefits from massive intermediate inputs coming from outside. Sometimes, it is completely impossible to nominate their country of origin, as the mention “made in the World” is sufficient (Yuqing [ed.], 2016: 17).

An in-depth analysis of global value chains can also be followed in an OECD report (OECD, 2015). The report clearly shows that global value chains are very heterogeneous (OECD, 2015: 7), with the analysis focusing on the contribution of small and medium-sized enterprises in agriculture and labor-intensive industrial activities.

Significant studies (Hernandez et. Al., 2014) reveal how far production fragmentation and the perspective of value chains in Latin America can go, along with the opportunities they offer to local firms. We consider such a study to be all the more important as it provides a point of view from developing countries, which, in turn, face problems created by the new international economic framework. The authors argue that in recent decades, two fundamental changes have taken place that have fundamentally transformed global production and world trade (Hernandez et. Al., 2014: 21). First, there has been a growing integration of markets as a result of trade liberalization, regional agreements and arrangements, lower transaction costs and the rapid spread of technological knowledge through computer networks. Secondly, we have witnessed a “disintegration” of production processes that has led to an unprecedented increase in international flows of intermediate goods in global trade, which has allowed the emergence of global value networks, at a very fast pace, if we relate it to the scale of economic history.
In another volume published under the auspices of the OECD (OECD, 2013) are brought many examples in favor of the role of global value chains in economic development and increasing competitiveness, but also in managing the risks involved. According to the problematic area included in the volume mentioned above, global value chains represent not only a new phase of economic globalization, but also a new economic paradigm, in the sense of changing the way we think and interpret the process of economic globalization (OECD, 2013: 14-31).

In this context, we cannot overlook an important UNCTAD report (UNCTAD, 2013) in which, in a separate chapter (UNCTAD, 2013: Chapter IV: 121 et seq.), a number of related issues are analyzed in detail concerning the interaction between investment and value added created through global value chains. At the same time, it is worth mentioning, among the recent contributions on global value chains, the volume edited by Joao Amador and Filippo Di Mauro (Amador & Di Mauro, 2015), in which the authors analyze the factors of specialization within global value chains and the perspective of the evolution of these networks (Amador & Di Mauro, 2015: 36-58). Their opinions on the impact of global value chains on the labor market and productivity are also interesting (Amador & Di Mauro, 2015: 107-121).

III. TRANSFORMING THE CHARACTERISTICS OF THE GLOBAL VALUE CHAINS

Global value chains are not a completely new phenomenon. In the first part of the post-war period, some attempts to productively interconnect companies at international level appeared, until then a certain division of labor functioned within the national economic context. Subsequently, as the process of economic globalization began to assert itself more and more intensely, value chains grew in size, so that in the last three to four decades they came to cover the entire global economy. Undoubtedly, the progress made in the field of information and telecommunications, as well as transport technologies, has contributed to this phenomenon. As their proliferation, not only the international economic landscape has changed, but the value chains have acquired new characteristic features, amid the emergence of new markets and the diversification of the range of products traded. The factors that contributed to this were precisely the speed, magnitude, depth and variety of global interactions between international economic actors. Obviously, a distinct place is assigned to multinational corporations, but the growing role of small and medium-sized companies with local expansion, located in the contractual area of value chains, should not be neglected.

Advanced technologies have allowed the business to move to more remote locations around the world, where production costs were lower and efficiency higher. This principle has become the key element of the competitiveness of large multinational corporations. In turn, the governments of different countries have concluded that it is more advantageous to participate in value chains than to isolate themselves, a phenomenon pointed out by some authors (Dunning, 1993: 315-374) even before the very concept of value chain was developed, based on the evidence of the configuration of the international business. Therefore, they have tried and, to a large extent, succeeded in creating a more friendly political and legal framework for foreign investors. This, as part of the macroeconomic policy mix. It is well known that economic policy on foreign investment has increasingly established itself as a lever for influencing regional development, or, on a larger scale, as an important support for industrial policies.

Under the current conditions, more and more products include in their composition inputs from different countries. Consequently, the phrase Made in the World has become an undisputed reality, demonstrating the strong interdependence between national economies. At the same time, certain relationships have not remained unchanged over the years. The frequent transformations, depending on the change in the international business environment, have also affected the global value chains, imprinting new features and characteristics unknown in the past decades.

First, it is relatively easy to see that the structure of production costs has undergone significant changes, as products have become increasingly complex. As a result, the supply of value chains has become more and more varied with the changes in the global distribution of jobs and the entry into the economic circuit of new geographical locations considered more advantageous. These transformations have led to multiple changes in the strategies adopted by multinational companies, leading them to introduce in the value chains a stronger technological component, under different degrees of implementation required by the nature of the products in the making.

Another element of the changes, aimed at the first two decades of the 21st century, refers to the pace of the spread of scientific knowledge and technical-economic information through the virtual space of the Internet. Today, consumers can quickly identify not only the location, but also the conditions under which a certain good they need is produced. It is understood that this great information capacity will also influence their purchasing decision, a fact also pointed out by some researchers (Fung, 2013: XIX-XXIII). The expansion of e-commerce has thus become one of the major features of today’s value chains.

The last decades have also marked a change in the attitude towards the natural environment. Traditional growth models based on irrational consumption of natural resources no longer meet current requirements, given
that our planet is preparing to host in 2050 about 9 billion inhabitants. The only solution is to pursue a rational consumption, supported by a production based on innovation. In the terms used by global value chains, this means producing sustainable added value, in which supply chain participants benefit from fair trade. Global value chains will no longer be able to function for a long time in conditions of inequality and deep gaps between nations. Ultimately, the problem of changes in global value chains is how a business is managed while facing many risks related to an uncertain global market, unpredictable consumer behavior and a fragile financial system. New technologies will help us overcome the negative effects of climate change and save non-renewable resources. In this sense, new technologies will be able to determine the application in practice of the principles of the so-called circular economy (WEF, 2014), given that, in previous decades, the level of waste incinerated from the manufacture of consumer goods, in the field textiles, food, packaging and others, reached about 80%. Therefore, the application of the principles of the circular economy will be likely to determine the saving of resources and the reduction of certain categories of costs that will determine the unprecedented increase of the efficiency of the economic activity. Applying the principles of the circular economy in global value chains can meet the goals of real business sustainability (WEF, 2018), with ambitious goals in terms of minimizing the extraction of raw materials, on the one hand, and waste production, on the other. Unfortunately, they will cause, at the same time, the disappearance of many old professions and a significant reduction of classic jobs following the widespread use of robotics.

The intensification of the presence of global value chains in the landscape of the contemporary world economy cannot ignore the particularly complex role of services. Globally, in 2017, services totaled $5279 billion in exports (WTO, 2018: A60, p.188) and $5074 billion in imports (WTO, 2018: A61, p.192). In comparison, in 2019, exports of services were estimated at $6065 billion (WTO, 2020: A59, p. 136) and global service imports at USD 5730 billion (WTO, 2020: A60, p. 136, p. 140). It is also estimated (WTO, 2018: 63) that the importance of services in the composition of international trade will increase, from 21% share in total world trade, to about 25% share in 2030. According to a report by the World Bank (World Bank, 2018) on the state of global economic indicators, the share of value added in the area of services in the global gross domestic product reached 65% in 2016, compared to 61.5% in 1997. This means a significant shift in the structure of the value of global gross domestic product in favor of services, which is certainly likely to cause significant changes in the way the global economic system evolves in the future. In this context, financial services alone were worth $464 billion in 2017 worldwide (WTO, 2018: A40, p.161). The share of services has also increased as a result of structural changes in the global economy, largely as a result of segmentation of production and multiplication of transactions through global value chains. Due to this, services have become one of the basic factors that characterize global value chains today. Of course, the period of restricted economic activity caused by the medical crisis caused by the covid-19 pandemic will greatly affect the condition of these indicators, but the current situation leads us to say that global trends will not be changed by the problems, especially when we refer to entire sets of services whose importance increased during the pandemic.

Transports, communications, finance, distribution and other services are included in the cost structure of any economic activity. Therefore, they are considered to be determinants of competitiveness and increased labor productivity. As inseparable elements of the production process, distribution and sales services can be considered as the link that allows global value chains to operate in a continuous flow. With their help, various subassemblies and intermediate goods purchased from subcontractors can be incorporated into the final product. As such, services have become a distinct source of competitiveness and productivity. Therefore, they can no longer be treated as an element of complementarity since, by their nature, they directly influence the elasticity of supply and demand. In practice, it is quite difficult to identify the individual components of each service in the final value of a product (eg know-how or consulting services), which is why they fall within the broad area of intangible assets (OECD, 2011), or invisible assets, such as design, intellectual property, branding, advertising, marketing strategies, retailing, software, training, maintenance, environmental responsibility and more. Some of the services are not even marketed (being produced in-house), others (most) are subject to the commerce process, being purchased through various links of global value chains. Thus, in terms of value, total imports of services have a significant share in total imports of intermediate goods (WTO, 2018).

In conclusion, the new wave of economic globalization offers services a crucial role in global value chains. This role can no longer be underestimated. They really participate in creating new value, being an integral part of a virtuous circle of product value. In turn, global value chains themselves have become a dominant feature of today's global economy.

IV. ADVANTAGES AND DISSADVANTAGES SPECIFIC TO FIRMS AND HOST COUNTRIES AS A RESULT OF THEIR CONNECTIONS TO GLOBAL VALUE CHAINS

One of the fundamental questions that persists today in the debates on the transformations that are taking place in today's global economy is: to what extent are global value chains necessary for both developed and
developing states? Of course, the answer cannot be unequivocal and it must be translated only in terms of advantages and disadvantages. Therefore, we try in this section to group the advantages and disadvantages of that form of economic integration in the following table.

Table no. 1: Advantages of connecting developed and developing countries to global value chains

<table>
<thead>
<tr>
<th>Advantages for developed countries</th>
<th>Advantages for developing countries</th>
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<tbody>
<tr>
<td>• Fragmentation of production has given these countries the opportunity to reap great benefits in terms of cost reduction</td>
<td>• Their participation offered them new opportunities to enter modern production sectors and to participate in export activities</td>
</tr>
<tr>
<td>• Globalized value chains have facilitated the access of large multinational companies to natural resources located elsewhere and to relatively cheaper labor</td>
<td>• Value chains have contributed to some extent to job creation and reduced unemployment, including absolute and relative poverty improvement</td>
</tr>
<tr>
<td>• Through the proliferation of production and sales chains, companies have managed to create real clusters in certain developed or medium-developed countries (especially in the field of IT&amp;C), increasing productivity and helping to amplify the effects of scale.</td>
<td>• The contribution to increasing the qualification of the young generations of workers and induced professional development is notable</td>
</tr>
<tr>
<td>• With the help of government authorities in some states, they have contributed to the mobilization of domestic capital and to the promotion of innovative processes with greater efficiency</td>
<td>• They have contributed to the assertion and implementation of greater development potential, while creating a specific comparative advantage for host countries</td>
</tr>
<tr>
<td>•</td>
<td>• They have contributed to the development of transport infrastructure and the harmonization of customs procedures</td>
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<td>•</td>
<td>• At certain stages of production, they managed to use high quality management</td>
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</table>

Source: designed by the author, based on the synthesis of existing resources in the literature on the topic addressed in the article and which also make up the bibliographic synthesis (Chopra & Sodhi, 2004; IBRD, 2020; ILO, 2014; OECD, 2013; OECD*, 2015; OECD, 2017; United Nations, 2020; WEF*, 2019).

Table no. 2: Disadvantages of connecting developed and developing countries to global value chains

<table>
<thead>
<tr>
<th>Disadvantages for developed countries</th>
<th>Disadvantages for developing countries</th>
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<tr>
<td>• The tendency to delegate certain phases of production abroad has limits that cannot be exceeded</td>
<td>• In general, these states have been entrusted with relatively simple, repetitive and low-paying operations. The design, marketing and distribution activity is carried out with the brand of large multinational companies</td>
</tr>
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<td>• Being directly involved in product assembly, leading companies may face some difficulties when the network of sub-suppliers is too large (delivery delays, poor quality, strikes, high administration costs, etc.).</td>
<td>• Possibility to specialize in a limited number of operations carried out under license or franchise, rarely participating in the assembly of the finished product</td>
</tr>
<tr>
<td>• Operating in some labor-intensive sectors (clothing, footwear, food processing, etc.) forces the leading company to relocate in case of rising wage costs, or strong union protests.</td>
<td>• In most cases, their production remains concentrated in sectors with low added value, which weakens their power to assert themselves more in the production chain.</td>
</tr>
<tr>
<td>• The emergence of difficulties in maintaining the organizational flexibility of the productive network</td>
<td>• Limited ability to respond quickly to demand, ie difficulty to adapt to changing market trends</td>
</tr>
<tr>
<td>• The possibility of the spread of major crises worldwide</td>
<td>• Weak logistics base</td>
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<tr>
<td>• Certain risks incurred due to technology transfer through foreign direct investment (FDIs)</td>
<td>• Reduced bargaining power</td>
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<td></td>
<td>• They usually depend on a single provider of know-how</td>
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The sources of risk in the case of global value chains can be very varied, covering a wide range of causes. Usually, they cause uncertainty, going so far as to compromise the reputation of companies involved in close relations of cooperation in production and trade. The consequences are quickly transmitted to the price system, which in turn has major effects on supply and demand. Some of the risks that may disrupt the proper functioning of global value chains do not depend directly on the management of companies, having either an objective character (earthquakes, strong floods, armed conflicts, terrorism, the evolution of short-term economic cycles, etc.), or subjective, related to the fiscal and financial policy of the host state, embargoes, changing consumer preferences, purchasing power determined by disposable income, attitude towards the environment, - factors that cannot be controlled by a single company. For these reasons, it is very important how global value chains transmit shocks from one national economy to another so that the entire network is contaminated. Given the growing economic interdependencies between states, amplified by the process of globalization, the spread of shocks caused by various sources of risk is much easier than in the past. As a result, a redistribution or transfer of risks to other economic actors is no longer possible through reinsurance either. Exceptions are only cases where some of these economic agents show a great ability to reduce the negative effects of shocks in the system. The volatility of the relationships within the global value chains increases so much in conditions of economic crisis, that only through new technological inputs can it be diminished / eliminated, so that the comparative advantages are maintained. The ability to absorb the impact of shock waves is today a sine qua non of modern management. It is no coincidence that risk management has become one of the most frequented fields by researchers.

V. CONCLUSIONS

In today's global economy, global value chains are the nervous system of international relations. Currently, most manufactured products can no longer be manufactured from A to Z in a single country. In most cases, the components of the finished product come, practically, from multiple sources. The well-known slogan Made in the World is more actual than ever, becoming an indisputable reality. The label accompanying a given product designates at most the last stage of its manufacturing, more precisely, that of the final assembly. The vertical and horizontal development of value chains has created the premise that intermediate factors of production account for about 2/3 of world trade in goods and over 70% of trade in services (WTO, 2018: 128; Elms & Low, 2013). World trade is also governed by 80% of internationalized production chains (UNCTAD, 2018: 132). Given that they are based on a very precise division of labor, they have given a new impulse to deepening the global division of labor. Through the value chains, a very flexible and dynamic production structure has been created on a global scale, which is in full evolution. Now, each production network has a territorial dimension, in which the participating companies try to obtain their own competitive advantage, by capitalizing on geographical differences in positioning and local resources. All this, depending on the size of the market, the structure of demand and the possibilities of access to external third markets.

Global value chains are a creation of the globalization of the economy. Due to the dispersion of production activities abroad, value chains have contributed to reducing economic disparities and to some convergence between nations. Unfortunately, this finding is more valid for developed countries. At the individual level of the less developed economies, a great heterogeneity of situations continues to manifest itself. To a large extent, the latter states have remained mere suppliers of raw materials, or at most are engaged in routine assembly operations with little added value. Because of this, they are highly vulnerable to the short-term business cycles. In general, however, determining the exact impact of global value chains on a country's economic development is quite difficult due to the large number of firms involved in different phases of value-added modularity. This issue remains open to statistical and econometric research.

VI. REFERENCES


