

GLOBAL VALUE CHAINS AS A COMMON DENOMINATOR OF ENTREPRENEURSHIP IN THE “POST-PANDEMIC” WORLD.

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ABSTRACT

There are already numerous opinions and forecasts about what the world economy will look like in the nearest future, in the wake of a post-pandemic period. The global world is facing now a social and economic crisis, never experienced before, the COVID-19 pandemic became a very significant trigger changing the way the world production was conducted in the previous era. In these conditions, large and small businesses are trying to cooperate with each other within the Global Value chains framework, to survive. As the main drivers of global production and financial systems, large corporations had to improve, but it is still difficult to say how long it will take. On the other side, after the pandemic recession, it is becoming more and more obvious that SME sector has increased its impact not only within the national economies, but also in a global scale. A huge amount of financial and institutional support is being provided to the SME sector by the governments, which eventually will lead to an improvement in the International Capital Reproduction System. However, there is still a gap in existing connections within the global value chains, which makes a big challenge for this integration process to be achieved. Although many aspects of globalization are now clearly understood, still there is scarce information on the transforming relations between large companies and their partners - smaller firms and the ways the formers integrate into the Global Value Chains. This study aims to define the evolution of the role of SMEs in the global value chains, identify and assess the factors that contribute to the integration of SMEs into global value chains and explore the impact of GVC onto their institutional framework.

Keywords: *GVC, SME, COVID 19, post-pandemic economy, integration, production*

INTRODUCTION

Papers Globalization of markets and production has exponential growth and reached an unprecedented extent within the last 20 years [1]. This process was followed by the production of goods and services increasingly fragmented across countries and enterprises [1]. While large multinational companies (MNCs) are successfully leading this process, small and medium-sized enterprises (SMEs) are confronted by the diverse challenges and opportunities related to the new

production context, while being included in it [2]. Integration of SMEs into GVC supposes their adjustment to the existing in the chain "Rules of Game", which in its term leads to some crucial changes in their institutional environment [3]. Although many aspects of globalization are now clearly understood, still there is scarce information on the transforming relations between large companies and their partners - smaller firms and the ways the formers integrate into the Global Value Chains. This study aims to define the evolution of the role of SMEs in the global value chains and explore the impact of GVC onto their institutional framework.

In the modern globalized world, there are many countries with different levels of economic development. However, due to the worldwide globalization and integration, they all are involved in many joint international production processes, including participation in Global Value Chains [1]. We all know the iPhone case - the telephone itself has been produced and assembled in many countries, all around the world. Of course, it does make a sense from a point of view of rational resource distribution. Another question is, how this process could be provided, if the countries-GVC participants have totally different legislation, business culture, customs system, in one word - different institutional environment. In this case, Global Value Chains could be considered as a force, leading to the unification of entrepreneurship across the countries [11]. There is proof that GVC has a positive impact on the economies of countries involved [5] however there are still many gaps in understanding this process. This paper will help to understand the process of how GVC affect entrepreneurship and institutional environment of the countries involved.

THEORETICAL FRAMEWORK

The term "Value Chains" was introduced by Hopkins and Wallerstein in the second half of the 1970s with the development of the World System Theory [3]. It was influenced by an explanation of the macro-historical dynamics of capitalism and its contradictory core-periphery structure, which plays an important role in understanding the operation of networks in this contradictory system [4]. Since the 1990s, the concept of the global commodity chain (GCC) was first introduced by Gereffi, and the issue is very relevant today, especially in exploring the scope and methodological aspects [9]. Since 2000, there has been a rapid development of globalization and this has led to the GVC concept of the global value chain replacing the GCC concept of the global commodity chain.

Global value chain could be explained as the full range of activities such as the product design, production process, marketing, distribution, realization and support to the final consumer, that processes are divided among multiple firms and workers across geographic spaces to bring a product from its conception to its end use and beyond [5]. In fact, this definition is kind of large scale extension of with Adam Smith theory of labor division, but Adam Smith's example is about how the production of a pin was divided into a number of specific operations

inside a factory, and each operation was each performed by a dedicated worker. However, In GVCs, the operations are spread across national borders and territories, and the products made are much more complex way than a pin. In other words, **Global value chains** (GVCs) refer to international production sharing, a process in which production has been broken into tasks and activities carried out in different countries.

There are four basic types of GVCs [7], [8]:

(I) International supply markets, where transactions are made based on relationships between buyers and sellers across borders, requiring minimal coordination and cooperation (e.g., commodity markets);

(II) Producer-driven networks, where the lead firm plays a central role in exercising control over the international network of subsidiaries, affiliates, and suppliers;

(III) Buyer-driven networks, where large retailers, marketers, and brand manufacturers source from the decentralized network of suppliers across borders;

(IV) Integrated firms, where hierarchical governance systems are implemented throughout the international networks, and produce all major goods and products in-house, characterized by vertical integration and strong managerial control.

Why Global Value Chains are important for SMEs? Global Value Chains allow small and medium-sized enterprises (SMEs) to get involved into the global economy. While some governments have already formulated industrial policies and aimed to promote some certain sectors of the economy, they are still less supportive to SMEs, particularly in enhancing the role of SMEs in the global economy (UNCTAD, 2010). However, there is growing awareness of the SMEs contribution to economic growth via income, employment and exports size. Some international organizations such as the United Nations Conference on Trade and Development (UNCTAD), the Organization for Economic Cooperation and Development (OECD) and the United Nations Industrial Development Organization (UNIDO) have already made several researches and held expert meetings and ministerial conferences to highlight SME contributions into the local and global economies, and show the ways how governments can support and strengthen SME supply capacities in their countries.

The rapid development of Global Value Chains has very important implications for two aspects of the SME sector [7], [8]. First one is that GVCs enable SMEs to be suppliers of parts and components or basic services, mostly on a subcontracting basis, to lead firms [6]. When entering into such kind supplier relationships with the lead firm, SMEs can specialize in a limited number of activities and production outputs within the framework of given GVCs, while

accessing large regional and global markets. In this regard, GVC-participating SMES must be able to meet an increasing number of required standards, certifications and conformity requirements, since strong competition on the markets is forcing down the prices but driving up the requirements for production for participating firms [7], [8]. Second, as SMEs become a part of a GVC, they gain skills of conducting business internationally. This knowledge allows such firms to improve their technologies and organize production better. At the same time, GVCs have much more demanding environment, requiring SMEs to improve not only their production methods but also their management practices [6]. If we refer to other most common challenges SMEs face during the integration into GVC we will discover these ones:

Opportunities for SME's - The recent studies are supporting the argument that Small and Medium Enterprises benefit from participation in global value chains [6]. A new organization of international production through outsourcing and the development of global value chains, has a large effect on small and medium-sized enterprises-suppliers. New niches for products and services emerge continuously from the division of production, where small companies are able to position themselves, using their flexibility and their ability to move fast due to the small size. There is several key benefits SMEs gain from inclusion into GVC. First of all, GVS enhance SME internationalization and growth - companies that integrate into GVC are able to access global markets at lower costs, due to their contractor intermediation. That gives SME the ability to expand and gain stability. Another key benefit is that SME are getting more and more acquainted with outsourcing and off-shoring practices, when it helps them to gain competitiveness from an optimal resource location. Upstream and Downstream cooperation with partners within the GVC is another key benefit for SMEs. It leads to the technology transfer, information flow and new opportunities unknown. Besides, when included into GVC. SMEs have to keep up with new technologies and innovation, as a minimum requirement to participate in selected global value chain.

GVC bringing Institutional changes - Global Entrepreneurship Monitor (GEM) researchers and analysts point out that differences in economic growth rates can be explained by different rates of entrepreneurship [12]. In this sense, the creation of new businesses can contribute to countries' economic performance, as entrepreneurial activity innovates, creates and enhances competition [10], [11]. Our research, however, allows us to add another thesis that *entrepreneurship provides an opportunity to strengthen the sustainability and enter in the system of world economic relations via GVC.*

METHODOLOGY AND DATA

José Ernesto Amorós, a professor at the United Nations University, used a methodology to measure entrepreneurship development as influenced by the quality of institutions. In this methodology, he investigated the impact on GDP,

indicators of entrepreneurship development as well as the impact of the performance of public institutions for developing countries.

In our study, we have used this approach to develop our methodology to investigate the inclusion of countries in the global reproduction process (GVC). This methodology is based on an institutional analysis of entrepreneurship development for a selected group of countries hypothetically participating in the GVC. The GEM (Global Entrepreneurship Monitor) dataset, which is a set of indicators that allows us to analyze the state of entrepreneurship in 115 countries of the world, were used to analyze entrepreneurial activity. In the developed methodology, 4 dependent variables characterizing entrepreneurial structures and their behavioral aspects (TEA, EBO, EEA and Innov) were used in the econometric models from the GEM indicator dataset.

Data Sources

Global Entrepreneurship Monitor (GEM) - global survey-based research on entrepreneurship and entrepreneurial ecosystems worldwide. It is the only global research source that collects data on entrepreneurship directly from individual entrepreneurs.

The International Property Rights Index (IPRI) is the publication of Property Rights Alliance, which scores the underlining institutions of a strong property rights regime: physical property rights, intellectual property rights and the legal and political environment. It is the world's only index totally dedicated to the intellectual and physical property rights measurement for 129 countries.

World Governance Indicators (WGI) includes aggregate and individual governance indicators for over 200 countries and territories over the period 1996–2019, for six dimensions of governance: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption.

OECD Trade in Value Added (TiVA) database provides better insights into global production networks and supply chains, than it is possible with current trade statistics. This dataset consider the value added by each country in the production of goods and services that are consumed worldwide. TiVA indicators are designed to better inform policymakers by providing new insights into the commercial relations between nations. The indicators are expressed in USD millions at current prices.

Data type: Panel data

1. Dependent variables: Entrepreneurial indicators from GEM (stat. average)
2. Independent variables: Institutional Indicators from GEM (stat. average)
3. Independent variables: Institutional Indicators from IPRI (stat. average)
4. Independent variables: Institutional Indicators from WGI (stat. average)
5. Resulting variables: VAGE - TIVA from OECD (stat. average)

Table 1. Key indicators of entrepreneurial activity (2014-2019, on average).

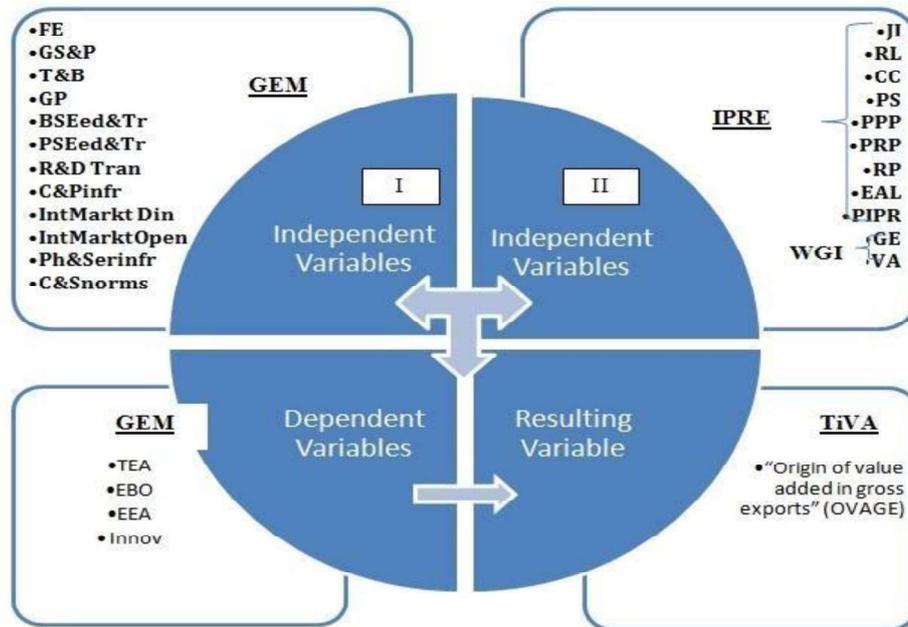
Countries	(TEA)	(EBO)	(EEA)	(Innov)
Germany	5,61	6,4475	5,56	26,32333
Italy	3,9175	5,56	2,0975	26,46333
Latvia	14,59	10,04667	4,42	28,905
Lithuania	10,425	7,6875	5,6325	25,095
Estonia	17,77	9,585	7,71	32,35
Poland	7,535	10,6525	2,9875	17,31667
Czechz	7,606667	5,29	3,81	30,13
Hungary	8,7175	6,785	2,885	19,545
Bulgaria	4,846667	7	0,6	15,26
Romania	10,3825	6,0825	4,525	24,6975
Slovakia	11,675	6,64	3,0675	25,7
Slovenia	7,26	7,1875	5,8925	30,99333
Georgia	7,9	7,94	0,435	20,84
Kazakhstan	10,735	2,405	2,39	21,57
Russia	7,05	5,096667	0,64	6,745
Turkey	15,19	9,025	3,38	30,8
India	11,565	7,425	0,9225	33,49333
China	9,8025	6,705	0,93	29,12333

Source: Global Entrepreneurship Monitor, 2014-2019

Figure 2 illustrates the algorithm of our methodology, where variables and how they are used in the models are shown. Thus, as shown in Figure 2, the indicators calculated by the Global Entrepreneurship Monitor, defining the conditions for entrepreneurship development, were taken as independent variables that influence the institutional development of entrepreneurship. In addition, independent variables describing the quality of public institutions were

also used, such as The IPRI (International Property Right Indicators), which characterizes the legal and policy environment, physical property rights and intellectual property rights, and the WGI (Worldwide Governance Indicators), which are aggregate and individual governance indicators calculated by the World Bank.

Fig. 2. Methodology and variables



Source: Author's illustration

The Origin of value added in gross exports (OVAGE), which was calculated by the OECD based on the definition of international trade value added, was chosen as the resulting variable (control variable).

The methodology developed was based on multiple regression models:

$$E_{it} = f(\text{IPRI}_{it}, \text{WGI}_{it}, \dots, X_{it})$$

Where: E - entrepreneurial dynamics: GEM - TEA, EBO, EEA and Innov; GEM - FE, GS&P, T&B, GP, BSEed&Tr, PSEed&Tr, R&D Tran, C&Pinf, IntMarkt Din, IntMarktOpen, Ph&Serinfr, C&Snorms; IPRI - L&P, JI, RL, CC, PS, PPP, PRP, RP, EAL, PIPR, PIPP; WGI - GE, VA; (other indicators were excluded from the models due to their low impact) X - control variables: TiVA (VAGE) - the share of each country's value added in the partner country's exports, depending on the chain under study; i - country index, t - time period.

Models are estimated by combining a cross-section of countries with time-series data for each country for the period 2005-2015. Linear, logarithmic, inverse relationships, and quadratic specifications are tested using a general-to-specific modelling procedure to test the best statistical fit. Entrepreneurship and quality of

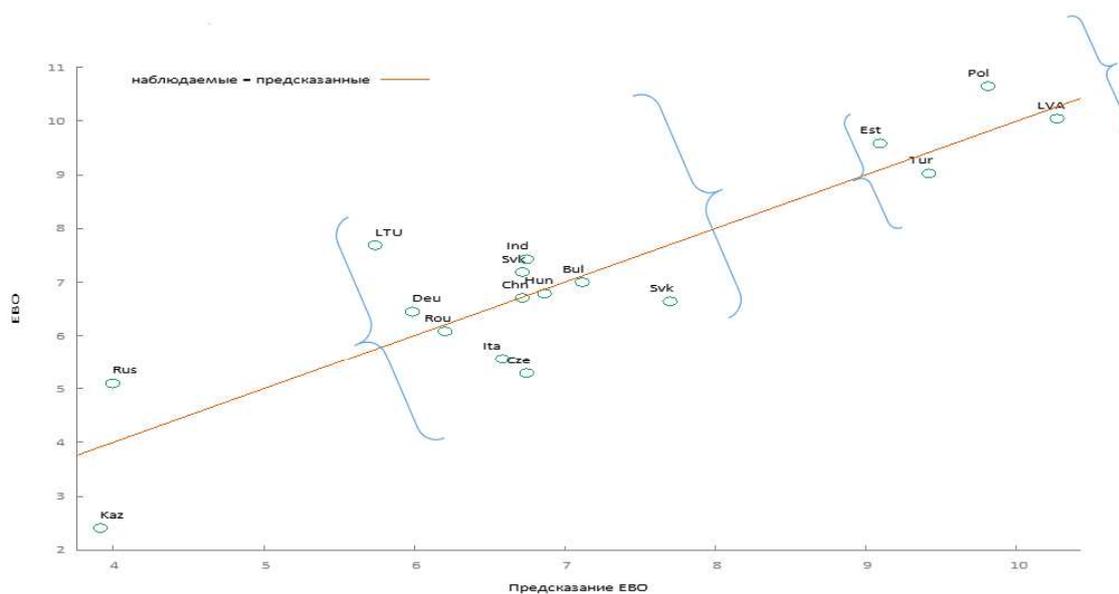
institutional variables are tested with averaged indicators using the linear multiple regression OLS model.

Thus, in implementing the model in the first stage, through the analysis of the correlation matrix, those independent variables that led to the emergence of multicollinearity were selected. Next, a multiple regression was constructed and those indicators that were not statistically significant, where acceptance of the null hypothesis is rejected due to the high threshold value of the regression coefficient, were excluded from the model. In this way, we were able to identify those indicators which had a direct impact on the dependent variables from the perspective of the selected group of countries. The resulting regression equations on the basis of the constructed models allowed us to provide some interpretations.

Data Analysis

Based on the obtained multiple regression equations, the following trends were identified using the country data presented above. Graph 3 shows the trend of the EBO indicator for the countries studied based on the mentioned above calculated indicators. As can be seen, the smallest deviation from the trend as well as the relative proximity in terms of the interpreted indicator corresponds to 10 countries, which gives us a picture of the similarity of the institutional framework for the established business in selected countries.

Fig. 3. EBO (x) Institutional variables (y).



An established business (Established Business Ownership Rate) EBO is influenced by 9 variables. Depending on the country group studied, variables such as "Financing", "Business education", availability of "Professional and commercial infrastructure", Dynamics and Openness of domestic market have a positive impact. At the same time, there is a negative correlation for such variables

as "Basic Elementary Business Education", "R&D Transfer", "Production and Service Infrastructure", and "Cultural and Social Norms" **Similar graphs were made for other entrepreneurial (independent) and institutional (dependent) indicators, and in all cases there were a correlation between them.*

DISCUSSION AND CONCLUSION

Whether we admit it or not, institutions have a great impact on entrepreneurship, many other sources and papers show us the relationship between institutions the fact, that they are closely related. World Bank's "Doing Business" report could be direct proof of this statement. It is therefore very important to better understand the role of institutions in the economy and to try to create an effective institutional framework for further and better economic performance. When it comes to a matter of institutional mismatch, there is a general consensus that low- and middle-income countries have relatively poor institutional quality compared to more developed countries. The existing specific conditions of institutional development in developing and developed countries enter into a certain mismatch found in the course of economic and political relations. In the process, developed countries are in a way 'forced to reorient' the institutions of developing countries towards their own institutional system, which has been forming for years [10, 11, 12]. This coercion is carried out under the disguised condition of inclusion in the GVCs and receiving a share of the value-added in the "tradable" products produced. At the same time, developed countries with an interest in increasing their value-added and controlling management function, and in order to retain power in the chain, have to adapt to the existing institutional conditions of developing countries. Thus, a kind of biased institutional system with its own "rules of the game" is emerging within the chain, created and quite viable, especially within the GVC. Of course, in GVC the monopoly advantage in management and in the distribution of added value belongs to TNCs, which form the entire technological, marketing and financial policy of the chain. At the same time, political and geo-economic relevance is shaped on the platforms of inter-state interactions, where economic feasibility is considered in conjunction with the political interests of states. This is where problems of consistency between the customs, tax and investment legal frameworks and the institution of ownership arise. Again, the formation of the GVC is formed on mutual interests and concessions, which is mainly reflected in the quality of the institutions of power. Institutions and their quality, the range of tasks performed reflect the level of socio-economic development of society, while in parallel there is a qualitative change in the reproduction process, which in turn will determine the nature of economic growth. Thus, processes influencing the regular development of society will influence the quality of reproduction processes, and entrepreneurship from this point of view is a reflection of the process of mutual influence of the development of society and reproduction of economy.

The fact that institutional quality has an important influence on the distribution of entrepreneurial activity in a given economy is emphasized by Baumol in 1990 [13]. Baumol's work is one of the first to argue that differences in entrepreneurship are the result of different institutional elements in different countries or regions. His contribution to the concept of productive, unproductive and destructive entrepreneurship links not only the rate (or level) of entrepreneurial activity to a particular context, but also links the distribution of entrepreneurial effort to institutional variables. Baumol's speculation clarifies that countries (or regions) with more developed institutions have more productive entrepreneurship and less unproductive (or disruptive) entrepreneurship. His starting point is an attractive egalitarian world in which entrepreneurial talent is evenly distributed among the population, but where such talent only contributes to economic growth because under certain institutional conditions it is used productively. When the incentive structure of the economy leads agents to unproductive (rent-seeking) activities, agents can be expected to follow suit.

To conclude, it is important to clarify that some of the arguments discussed here have been the subject of empirical studies, which tend to confirm that institutions (or, more precisely, the quality of institutions) have an important influence on economic outcomes. But only a few studies have questioned the relationship between institutional quality and entrepreneurship [12]. Thus, it should be reiterated that institutional quality is an element that should be present in any model and theory designed to explain entrepreneurship.

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