ISSN: 2455-6114

ROLE OF DEVELOPING ECONOMIES IN GLOBAL VALUE CHAIN: A CRITICAL

**EVALUATION** 

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ABSTRACT

In modern times, deep transition in the global economic structure has remodeled the organization

of international trade. A substantial part of which, is intra-firm trade understood as the

transnational flow of goods and services between parent enterprises and their associates or among

these associates, in contrast with the arm's length trade between unrelated parties (inter-firm

trade). Change in production capacities happens to be one of the major factors behind this

restructured international trade. As a result, local industries and national economies of various

countries have become an integral part of global value chains (GVCs). These countries include

emerging economies, which are being increasingly impacted by GVCs every year. This paper

analyses the role of developing economies in the global value chains. The study finds that the

market growth in these economies has been the main reason for shift in end markets in GVCs, as

have been the upsurge of regional trade organizations and the paradigm shift in the industrial

policies of these economies which have been more GVC oriented than the past. The study also

suggests there is a word of caution against excessively GVC focused approach as it may not work

favorably to the indigenous enterprises of emerging markets.

**Keywords:** Global Value Chains; Emerging Economies; Economic Development; International

**Economics** 

ISSN: 2455-6114

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#### 1. Introduction

Globalisation has brought about a newfangled period of international competition among businesses of the world. This can be best understood by making an analysis of the international structure of firms as well as industries and the methods in which economies experience ebb and flow as a participant in international trade. In the past two decades, intense restructure has taken place in the organizational and operational models of global production and it has widely impacted national economies across the world. Global production, trade and investments are progressively structured within global value chains (GVCs) wherein most of the various stages of the production process are spread across varied countries. Firms do this in order to ensure cost optimization by indulging in value chain activities inclusive of design, production, marketing, distribution and so on.

GVCs function at diverse topographies (local, national, regional, and global) and stay on evolving. The spur in globalisation process brought about by the emergence of various regional agreements has caused in GVCs to center their investment and establishing operations in large and vibrant emerging economies which are endowed with plentiful raw materials, enormous amount of low-wage workers, exceedingly proficient producers, and rapidly emergent native markets. Challenged with sluggish growth at home, big transnational businesses find it more suitable to set up operations in emerging economies so as to reduce cost of production, ensure brand acknowledgment and occupy market- share in fast expanding consumer markets. In most of the cases, it is still far economically viable to export the product back to the home markets pertaining to the extremely low comparative cost of production.

This amplified activity of GVCs in the emerging markets has proven itself to be extremely helpful in growth of these economies and on the other hand, has challenged the clout of developed economies in GVCs.

This paper examines the role of emerging economies in GVCs. Section 2 presents the review of vast literature available on GVC analysis and suggests the need for this paper. Section 3 explains the methodology adopted in making the study. Section 4 covers the discussion over the characteristics of GVC, determinants of GDP participation and finds out the correlation between GVC participation and economic growth of a country. Section 5 presents the result of the analysis and section 6 concludes the study.

### 2. Literature Review

ISSN: 2455-6114

Since the early 2000s, global value chain governance theory has been seeking to explore economic interests, social structures and tactics which improve or impede industrial output. Heizer and Render (2001) explain this as interface amongst suppliers, manufacturers, distributors, and customers. Because these interfaces add value to the output, this supply chain is usually mentioned as the 'value chain' in literature. Further, the notion of governance is the cornerstone of GVC analysis. It scrutinizes the means adopted by corporate houses to structure the profit distribution and risk management in an industry and examines the actors exercising such power through their activities. Clout in GVCs is wielded by leading firms. Gereffi et al., 2005, discuss about how different kinds of GVC lead firms control to a large degree the ways in which global supply chains operate and the main winners and losers within these chains.

Though governance matters have attracted a lot of attention among GVC scholars, the research on economic upgrading has been equally important as several researchers using the GVC structure possess a very robust development focus. Gereffi, 2005 also stresses upon "economic upgrading" which can be defined as the process by which economic actors—firms and workers—move from low-value to relatively high-value activities in GVCs. The study also discusses that the challenge of economic upgrading in GVCs is to identify the conditions under which developing and developed countries and firms can "climb the value chain" from basic assembly activities using low-cost and unskilled labor to more advanced forms of "full package" supply and integrated manufacturing.

GVC scholars are thus now reconnoitering new issues such as those pertaining to labor regulation, labor-force development, environment friendly value chains, and gender related topics. Apart from these, current focus of researchers is also to study the interplay of GVCs on development of emerging economies.

Gereffi and Sturgeon, 2013 take notice of noteworthy and different roles played by the emerging economies in GVCs. Staritz et al., 2011 show how market growth in these economies has resulted in bringing transitions in end markets in GVCs with the inter-country trade augmentation in emerging economies, particularly since the 2008–09 economic downturn.

Mayer and Milberg, 2013 show that the trade flows can be enhanced by infrastructure investments in roads and facilities that link rural regions and small firms to bigger native markets, and also by investments beyond the geographical borders, especially in infrastructure facilities connecting a country to its immediate neighbours in regional supply chains. In the current era, regional value chains are fetching a lot of focus for investment planning by development banks and international organisations (Gereffi and Lee, 2012, pp. 28-29).

Sophisticated value chain data disaggregated by business functions can complement existing country-level trade statistics and industry-level input-output data, providing a clear picture of who is

ISSN: 2455-6114

gaining and losing in GVCs (Sturgeon and Gereffi, 2009). This further leads to a need for research on the impact made by developing economies on the global value chains. This is the point where the present study adds to the GVC literature.

3. Methodology

This paper analyses various methods by which emerging economies are participating in the GVCs. To keep the scope tangible, the paper focusses on the following features of GVCs predominantly germane to economic upgrading and development. The paper studies two cases to explore various characteristics, viz.:

- Developing export capacities the case of automobile industry in Mexico and Brazil; and
- Developing knowledge base in order to make transition to a higher value slot in GVCs the case of cattle industry in Uruguay

The study also analyses the performance of various developed and developing economies of the world according to the trend established by the trade in value added. On the basis of the data available for the countries participating in GVCs, a correlation analysis is performed between the value of trade in value added and GDP, however it doesn't guaranty causality.

#### 4. Discussion

#### 4.1 Features of GVC

Following is the discussion of the case studies performed:

### Case 1: Mexican and Brazilian Automobile Industry

The automobile industry exemplifies the severe disparity in forms of GVC participation in Latin American manufacturing sector. Catapulted by Mexico's admission into the North American Free Trade Agreement (NAFTA) in 1994, the country made a transitional shift from an import-substituting industrialization policy to an export-oriented strategy in automotive industry, which depended on low-cost Mexican workers and huge foreign direct investment the USA, Europe and Japan. Due to its strategic proximity to the United States, availability of highly qualified human capital, competitive operating costs, an attractive domestic market, legal certainty, an export platform to more than 45 countries, Mexico laid all its thrust on building extended and efficient supply chain. Though this has resulted in increased employment generation, the wages are yet dismally low as compared with the productivity, and the industry still has relatively frail ties with indigenous suppliers.

Brazilian strategy of GVC participation in car-making industry is by thriving upon sales to its

ISSN: 2455-6114

huge domestic market and regional networks with its MERCOSUR partners (primarily Argentina, Paraguay and Uruguay). Brazil charges premium fares on automotive products imported from outside of MERCOSUR to protect its indigenous affiliates of foreign carmakers. The country also offers several export incentives and investment in new establishments in the country.

Both economies, being leading exporters of automotive products, earn a huge revenue from the industry but in Brazil the local suppliers are more efficiently integrated into the operations of the transnational corporations than in Mexico. The automotive GVC has created more jobs in Mexico, but higher skills and technological capabilities in Brazil, thus both benefitting in their own ways.

#### Case 2: Uruguayan Cattle Industry

With over 12 million cattle, but just 3 million people, cattle outnumber people by four to one in Uruguay which makes it the primary export of the economy. The global cattle industry, being extremely vulnerable to health and food safety problems, Uruguay also faced the toughest challenge in 2001 due to the outbreak of foot-and-mouth disease which led it to face a multi-year ban on exports to the USA, the EU and many other countries. In order to alleviate the despair looming large, Uruguay adopted a sophisticated bovine traceability system, which allows the consumers at home and abroad know exactly where their beef comes from and how it was raised. This makes the industry track the source of possible difficulties, and sustain consumer and maintain confidence of their products in the developed world. Approximately 2.5 million new animals are registered on the system every year and this is the only system in the world with real-time monitoring of 100% of the national cattle herd. A chip fixed in the ear of every calf born permits the system to store centralized and precise information about it right from its birth to the sales and delivery points.

Uruguay has even started to provide this service to Colombia and this opens doors of GVC participation for Uruguay in different segments of the cattle value chain.

### 4.2 Determinants of GVC Participation

The study finds the following factors as the main determinants of the level for GVC participation for a country:

- Market size: Large domestic market helps in forward engagement in GVC because a large market has a better pool of domestic intermediates for purchases and sales.
- *Level of development*: Economies with higher per capita income have a higher GVC participation.

ISSN: 2455-6114

- *Industrial structure:* Economies with large manufacturing sectors have high backward engagement.
- *Location:* Economies geographically closer to manufacturing hubs (such as USA, Germany and China) have a high forward engagement in GVC.
- Policy Incentives: Industrial and trade policies emphasizing upon low import tariffs, inward FDI openness, high export incentives, regional trade agreements etc. have a high GVC participation.
- *Logistics:* Environment conducive in terms of infrastructure pertaining to trade facilitation, and intellectual property protection yield to a higher GVC participation.
- Location in GVC: Economies upstream in value chain produce the raw materials or the knowledge, while countries downstream take care of marketing, branding, logistics and so on.

The aim of each economy participating in GVC is to increase its total value added (TiVA) trade. Figure 1 shows the domestic value added share of gross exports of the leading economies of the world.

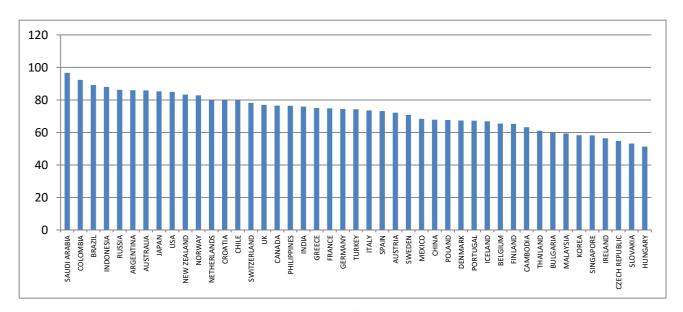


Figure 1: Domestic Value Added Share of Gross Exports in 2011

Source: OECD data extracted on 29 January, 2016

#### 4.3 Correlation between GVC participation and Growth

The trend over the last 15 years demonstrates that the there is a positive relationship between rate of participation in GVCs and GDP growth rates economy. It can be further understood by Figure 2 and 3 which show the scatter diagrams explaining correlation between GVC participation and GDP per capita growth rate of developed and developing countries respectively.

ISSN: 2455-6114

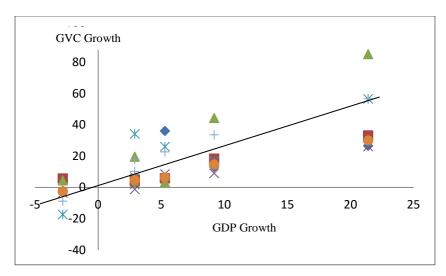


Figure 2: Correlation between The GVC Participation and GDP per capita Growth rate of Developed Economies.

Source: UNCTAD and OECD Data extracted on 30 January, 2016.

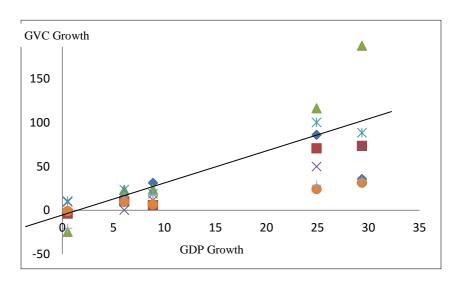


Figure 3: Correlation between the GVC Participation and GDP per capita Growth rate of Emerging Economies.

Source: UNCTAD and OECD Data extracted on 30 January, 2016.

#### 5. Result

For emerging economies, the overall benefits that accrue from participation in GVC can be broadly viewed in form of improved trade, increased investment, and skilled workers. This further leads to higher access to international market and participation in international agreements which increase both economic as well as political clout of these economies.

Most efficient of the emerging economies such as China, Malaysia, the Philippines and Singapore, Chile usually increase their "upstreamness" by gaining higher specialisation in

ISSN: 2455-6114

intermediate inputs and generally increased their "upstreamness". Taking cue, the other emerging economies are also increasingly developing their competitive advantage in GVCs on the basis of visionary trade policy objectives or increased economic development.

#### 6. Conclusion

The study proves that there is a strong positive relationship between the participation in GVC and the GDP per capita of developed as well as developing economies. The emerging economies understand this and are increasingly becoming a force to reckon with in GVCs, they look all set for reaping huge profits from this activity. Research proves that higher the economy in ladder of GVC, higher are the benefits accruing to it. Hence the most formidable challenge in front of these economies is of maximizing their economic upgrading opportunities in the global economy. It has to be also taken into account that it is itself a big challenge to improve international competitiveness in GVCs due to the vast diversity of endowments, experiences and interests.

These economies are increasingly engaging their local firms, assimilating adequate technical know-how, strengthening the institutional framework and implementing appropriate policies which is making them move further up the ladder and is giving stiff competition to the developed countries hitherto participating in the GVCs.

Yet, these is a scope of improvement in the role played by developing economies in GVCs. This includes

- improved infrastructure involving roads, shipping terminals and airports, etc.;
- trade policy which facilitate cross country trade
- encouraging industrial attracting global suppliers, laying path for increased specialization and promoting linkages to GVCs.
- developing highly skilled workforce especially for high-value services.
- enhancing quality of production so as to compete in the global markets and sustain the clients.
- increasing public-private partnerships to positively impact growth at the industry level through increased investment, output, exports, and employment.

But as everything else, there is a word of caution for the current interest shown by emerging economies to engage themselves in GVCs. These economies should prepare themselves well before jumping into the bandwagon by adopting excessively GVC focused approach as it may become very tough for domestic enterprises if they don't have adequate competitiveness. Also, they must be careful against frenzied admission into trade agreements because preferential trade agreements come with market access issues for limited duration. Such aspects should be taken as "windows of opportunity" to create GVC linkages.

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In the end, it can be said that by recognizing and addressing the current veracities of international trade, emerging economies are enhancing their capacity to formulate manageable objectives and capture a bigger share of the development benefits accruing from GVCs.

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