

## THE IMPACT OF BUSINESS LOCALIZATION ON THE INTERNATIONAL TRADE

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### Abstract:

*The recent evolutions in the world economy have generated questions which prove the necessity of a new approach of the theory regarding the international commerce. In which way the price liberalization affects the localization of the economic activities and the national income in real terms? Which are the factors that make a certain zone or region to be an attraction for the production factors? Which are the determinants of the international commerce when there is a mobility of the production factors? In this case, there is a need of a theory which explains why the economic activities are concentrated in certain countries, regions, cities and how the creation of such attraction poles over the years can be stimulated.*

**Keywords:** localization, competitive advantage, economic concentration, regionalization, intra-firm trade

**JEL Classification:** F10, F11, F161.

## THE CONCENTRATION PROCESS OF THE ECONOMIC ACTIVITIES

Reality has proved without any doubt the existence of a process of economic concentration from the geographical point of view. The transition from a rural economy to an industrial one and, in the end, to one with a tertiary character is followed by the development of the great metropolitan areas and of the cities which concentrate a great number of people, in many cases the industrial areas going beyond the national borders.

Once the analysis moves from the national level to the regional or to the local one, there is a decline of the practicability of the theories regarding the international commerce. The explanations related to the economic policies in a country, to the endowment with the production factors and to the comparative advantages have to be completed with a series of other aspects. It has to be seen why the national policies have different effects in different regions of the same country and the particular character of the comparative advantage seen at a regional scale has to be analyzed. Also, the endowment with the production factors cannot really be taken into account because inside a country only few settlements which restrict the free circulation of work or of the capitals are applied.

The models regarding the economic geography tend to produce centre- periphery oriented structures as long as the transportation costs are low enough. A key element in the explanation of the economic activities implies the finding of the incentives which lead to a sustained migration towards certain clusters. Great capital and migration movements take place and they go beyond the national borders in spite of restrictions hostility regarding the employment and investments imposed by the source states and the destination states.

The geographical concentration of the population and of the industry is a well-known phenomenon in the world economy and the *Gini coefficient* is used for its measurement. The Gini coefficient ( $G$ ) offers a measure of the geographical concentration of an industry and is calculated as half of the sum of the absolute value of the differences between the share ( $s_{ri}$ ) owned by the respective region ( $r$ ) in the occupied population from the respective industry ( $i$ ) and the weight ( $s_r$ )

owned by the respective region in total occupied population at national level in the processing sector.

$$G = \frac{1}{2} \cdot \sum_{r=1}^R |s_{r_i} - s_r| = \frac{1}{2} \cdot \sum_{r=1}^R \left| s_{r_i} - \sum_i s_{r_i} \right|$$

If the  $i$  industry would be equally spread inside of the regions of a state, the two weights would be equal and the  $G$  coefficient would be zero, while if the  $i$  industry would be concentrated in a single region with small dimensions, the value of the coefficient would be close to 1.

Over the time, a series of factors which stimulate the creation of these concentrations have been identified. In this way, a connection between the economic concentrations and the economies which the companies obtain on the base of some external aspects of the company's activity was established. For example, the interaction between companies and the workers in the same location can have a positive effect over the work performance through the high quality of the human factor or on the base of a low cost because of the substantial offer.

Another factor that favours the concentration of the economic activities is given by the possibility to obtain smaller costs through the localization of the business in a certain habitat. By placing a production capacity in a location which permits the elimination or the minimization of the transportation costs regarding the supply with raw materials or with other materials or of those regarding the product's distribution, the positive effect of proximity towards suppliers and clients becomes obvious, even if the company would register economies of scale wherever the activity would take place.

These two approaches are not entirely convincing. Although they explain the reason for which the phenomenon of economic concentration appears, none of these factors explains which certain specific locations are chosen. Many locations have the same characteristics from the economic, demographic and geographical point of view but there are missing arguments regarding the explanation why a certain region attracted economic activities in a certain sector. Many experts attribute an important role in the theory regarding the economic concentrations to the hazard and to the incidental historical events and even Krugman sustains that the theory regarding the base of the localization of the economic activities has to take into account not only economic factors, but also random elements.

Better studies about the geography, localization and commerce appear during the 90's, when many economists and researchers concentrate on the selection way of the best location for an economic activity and on the effects that this selection can generate. Remarkable in this case is Michael Porter's contribution.

## 2. MICHAEL PORTER – THE THEORY OF THE COMPETITIVE ADVANTAGE

The settled objective of Michael Porter's work, *The Competitive Advantage of Nations*, is to determine the causes, factors which lead to success on the international market of the specialised companies from a certain field. Analyzing the evolution of important multinational companies, the American economist correlates their success in the world and the national origin. In this way he places his analysis not at the level of the company as individual unit but at the level and within the nation from where it comes from. The nation through its production factors, its *technological, natural, human and financial resources* is actually a matrix for the companies' development, which use the national advantages in order to distinguish themselves in the world. The mother nation becomes, from Porter's perspective, a national „launching base" for the companies that will gain success in the world. [7, p. 101]

In this way, the competitive advantages of the company actually show the competitive advantages that the mother nation has towards other nations. As a result, the companies' way to the international success starts by determining the competitive advantages that the nation owns or could own. [6, p. 68] By emphasizing the role in the creation of the competitive advantages of his companies, Porter shows that the nation has to create the frame that allows its industries to gain international success. In this way, the companies will transfer their competitive advantages from national to international level.

From the elements that make up the environment in which the national companies compete, Porter chooses four elements which can become source of the competitive advantage: the production factors, the nature of the internal demand, the interfacing and the manufacture industries and the competition, the structure of the offer and the business strategy.

#### *The production factors*

Michael Porter extends the meaning of this concept by renouncing at its classical and limited meaning (work, nature, capital). He classifies the production factors in some big categories: human and material resources; the quantity of scientific, technical and marketing knowledge regarding the goods and services; the volume and the cost of the capital available for investments; the type, the quality and the cost of using the available infrastructure.

Owning these factors represents a premise, but this is not enough for a nation to develop and to maintain the competitive advantages. Surprisingly, there were situations in which the abundance of factors can undermine the competitive advantage; sometimes the success was the result of some deficiencies regarding the endowment with factors, which led to the replacement of this deficiency by developing the technology and the scientific research. The author states that the competitive advantage resulted from the production factors will depend especially on the deficiency of their use.

#### *The nature of the domestic demand*

There are three characteristics of the domestic demand, which are very important for the creation of a competitive advantage: the structure of the demand on segments, the sophisticated consumption behaviours with vast demand, the anticipant needs of the buyers. [7, p. 102]

#### *The interfacing and manufacture industries*

The presence of some competitive advantages in a manufacture industry gives potential advantages in many other industrial branches on the production chain. On the other hand, the presence in a country of an interfacing industry of international success creates opportunities in relation to the information fluxes and the technological changes between the companies giving them the chance to form formal or informal alliances; also, these successful interfacing industries can accelerate the development of the national manufacture industries.

#### *The competition, the structure of the offer and the business strategy*

The companies will gain in those branches in which the objectives and the motivation are in accordance with the sources of competitive advantage. A major problem in the study of the competitive advantage is the relation between the rivalry between the national companies and the creation and the maintenance of a competitive advantage. Some people consider that this has a negative influence because it hinders the national companies to gain advantages from the scale economies. The solution would be the domination of the internal market by one or two competitors that after becoming national competitors will establish themselves on the external market, too. Other people consider that the internal rivalry between the companies has no influence on the competitive advantage.

All these factors acting one by one or in a system create the context in which the national companies appear and compete: the availability of the resources and of the necessary knowledge for a competitive advantage in a field; the information that shows the existent opportunities and the directions in which both the resources and the knowledge are oriented; the objective of the owners,

of the managers and of the employees; the pressure on the companies to invest and innovate. [7, p. 103]

The companies acquire a competitive advantage where this is permitted by the conditions from the origin country and support the most rapid accumulation of capital and knowledge, a better understanding of the technological processes, where the objectives of the owners, managers and employees support the sustained development and where the internal environment is the most dynamic and force the companies to raise the quality level and to innovate.

The existence inside a nation of one of the above described factors is not enough to create and sustain a competitive advantage; only their existence as a whole together with the reciprocal connections created between them can be responsible for the creation of a national matrix, capable of pushing competitive companies in the world. All these factors and connections are called by Michael Porter *the national diamond*.

In conclusion, the nations have the chance to succeed in an industry in which the national "diamond" (the determinants as a system) is the most favourable. We have to deal with a system characterized by extremely complex reciprocal relations. In this way, favourable conditions regarding the demand will lead to competitive advantage only if the degree of competition is advanced enough to determine the companies to respond to this. The advantages in owning and using of one of these production factors can also create advantages when it comes about other factors. It is preferred that the companies base on advantages in a great number of determinants, a situation which is hard to counteract by the eventual rivals.

### **3. IMPACT OF FOREIGN DIRECT INVESTMENTS ON INTERNATIONAL TRADE**

Investments made by multinational companies are extremely important in the process of globalization, as they provide significant economic benefits for both the host country's economy and for the home country's economy. However, for the countries of origin of multinationals, FDI outflows are likely to cause a reduction of export levels and volume of domestic production, overseas expansion generating structural adjustment costs for the country of origin.

In recent literature, exports and foreign direct investments are seen as two alternative strategies for a particular product, while the relationship between them is characterized by a linear/sequential movement most of the time, from trade to FDI.

For example, companies could produce in the country of origin and export to foreign destinations or produce abroad and replace exports with sales of local subsidiaries. Economies of scale and transaction costs were key elements in decision making, export costs being divided into fixed costs – lower and variable costs - higher. Thus, when firms are extended in through FDI, fixed costs rose and variable costs decreased. For a given firm, this meant a sequential movement from exports towards FDI.

#### *Horizontal FDI*

Horizontal FDI refers to the case in which multinationals multiply their production, providing similar products and services to several locations.

One of the key components of the horizontal FDI model, developed by Markusen, is that firms choose to serve foreign markets through sales of foreign subsidiaries, and not by exports, in order to facilitate market access and reduce costs of fees and travel expenses.

So, the reason for which firms invest abroad is the result of a comparison between the advantages of being close to the consumer and the losses from a scattered production, a situation illustrated by the case of proximity versus concentration developed by Brainard.

For example if a manufacturer of a good from a developed country intends to produce and sell a new product he will invest in that project so years of research and development and, therefore,

significant fixed costs. To ensure that the new model will be a profitable investment the firm must ensure itself a sufficiently large volume of sales. A handy way to increase sales is to expand operations beyond their internal market, starting to export to a foreign country. Suppose that currently, there are trade barriers in export markets, such as tariffs on imported products or transport costs. If the company invests in a new factory abroad and produces the model for the local market in a foreign subsidiary, it can increase sales and avoid trade costs.

The firm's decision between the concentration of production in the country of origin (and therefore sales to the foreign market in the country F) and FDI (in which case production and sales on the foreign market take place through a subsidiary) will be taken depending on much the company will save avoiding costs associated with export and how much will the FDI alternative cost. In this context, proximity to consumers will be more important in large markets because consumers have a greater availability to purchase.

In conclusion, horizontal FDI is generally a substitute for exports as foreign production in a subsidiary from country F replaces production and exports of home country H. Therefore, in the horizontal FDI model, firms will prefer FDI in detriment of exports as a way of providing goods and services.

Foreign production can also generate new export opportunities in the country of origin, since some components may be exported to the country of destination for final output. Furthermore, while foreign production replaced all exports of goods, home business "exports" intangible assets; foreign production requires departments like research - development and marketing, which most often are found in the country of origin of the multinationals. Because these intangible assets are difficult to measure it is possible for substitution effect to be overestimated.

#### *„Platform” FDI*

Platform FDI are a more complex form of horizontal FDI. They refer to investments made depending on ease of access to markets in which multinationals locate their production in a country located in the vicinity of export markets as a platform that basically facilitates subsidiaries to export to that market. Thus, FDI generates Platform exports from foreign subsidiaries.

Suppose the manufacturer from the example above also intends to enter the market of a third country, which we will call R (“Rest of the World”), by placing a subsidiary in country F in order to sell on R’s country market. This will be profitable if country F is located close to country R so commercial costs related to market supply for country R by country F will be lower than commercial costs of country F supplying directly country H. In conclusion, "platform" FDI may restrict exports of the country of origin and at the same time, boost international trade. While the production in the host country (F) reduces host country exports (H). This generates exports of the subsidiary from country F to country R. So, in the case of “platform” FDI, their impact on international trade is positive overall.

#### *Vertical FDI*

Vertical FDI refer to investments in which the production process is fragmented, in order to take advantage of different input factors. Therefore, production and sales in multinationals can be seen as a production network, in which parts of the production process are located in different countries to take advantage of different input factors. Geographical dispersion of production will reduce production costs. Given that different stages of production require different levels of training of the work factor and prices may vary from one country to another, locating steps requiring a lower level of training of the workforce in underdeveloped countries (where labour is cheaper because it's less skilled) and activities which require skilled work force to be located in developed countries.

As vertical FDI implies a geographical separation of the production process, this type of FDI will boost international trade through intra-firm trade (exports and imports of intermediate products). Even if the product assembly is performed in a factory abroad, this can lead to increased exports of intermediate goods from the country of origin. In conclusion, vertical FDI can complete

international trade through increased intra-firm trade. For example, locating the final product assembly abroad may increase exports of intermediate products from the home country.

#### *Complex FDI*

Delineating horizontal FDI from the vertical FDI highlights the mechanisms behind different types of investments. In reality, however, investment can be justified, both by market access and input costs. For example, suppose that investor locates components production in country S to benefit from lower costs of inputs. Given the lower costs of manufacturing intermediate products, the total cost of producing the good will decrease. However this means an increase in the importance of trade costs regarding the foreign market supply from country R and the vertical investment in country S could determine the manufacturer to locate the final assembly in country R. [11, p. 726-734]

Currently, world production has increased significantly due to the increasingly foreign subsidiaries number. Now firms have increasingly more possibilities when it comes to the production and distribution of goods and services to foreign destinations, they can choose between: domestic production for export, production in a foreign country for local sale or production in a foreign country for export to a third country. Moreover, firms can now obtain resources and raw materials for production in foreign markets importing them from foreign manufacturers or establishing vertical production facilities, which facilitates access to resources.

In the new economic conjuncture, firms can use global opportunities that support their position in international markets by continuously organizing and reorganizing their external production activities. Consequently, intra-firm activities become extremely important. The decision to expand a company involves a combination of exports and FDI, in which both ways are determined simultaneously, by factors as the economies of scale, transaction costs, tariffs, market access and different endowment with inputs.

## **4. INTRA-FIRM TRADE**

The share of intra-firm trade played a significant role in regional integration, particularly in the European Union. Between 1957 and 1982, sales of U.S. subsidiaries in the EU increased from 14% to 46% of total trade. This determined Dunning to suggest that one of the most notable features of the European integration process, by the mid '80s, was the increasing division of labour set by U.S. multinationals, with has corresponding effects on intra-firm trade growth and intra-communitarian trade growth. [5, p. 54]

It is estimated that a growing proportion of global trade is represented by intra-corporate (between multinational) and not between countries. Multinational companies and multi-product companies that have expanded the '60s, both in number and purpose of the activities have encouraged the development of intra-corporation trade as a means of overcoming geographical, financial and technological limits. Multinational behaviour varies by country.

For example, U.S. firms' subsidiaries have a higher propensity to export than Japanese subsidiaries. Significantly, in the category of global trade, intra-corporate transactions are less controlled by the traditional determinants of trade: price / cost. It is less likely that transactions between subsidiaries to be market driven; they are sensitive to the international decisions of multinationals. Intra-corporate trade responds differently to changing economic conditions. [3, p. 424]

Transnational mergers and attracting resources through intra-corporate trade networks have become competitive strategies, as continuous profits were more dependent, as nations reduce their trade barriers. Deregulation of businesses that were national monopolies (telecommunications, banks, utilities) was a growth factor, once it became possible for them to be acquired by large corporations. In the 80s, many nations have reduced tariffs and other trade barriers to attract global

corporate investment. After reduction, manufacturing corporations were forced to become efficient producers and distributors to survive the competition from imports. [10, p. 258]

Also, cultural and linguistic barriers have prevented corporate integration in terms of flows of materials and finished goods and have an even bigger effect on suppression of intra-corporate work transfers. Each factory's strategy remained based on specialized models and penetration of export markets, in tandem with improving productivity, full capacity utilization and reducing costs. Specialization implies dependence on a narrower range of products and a tighter integration and "sisters" factories. This specialization in intra-firm division of labour has created new dependencies between factories.

Rationalization of production across borders (cross border production rationalization) followed two patterns:

The first is the pattern of vertical integration, the subsidiaries, and outside bidders of components, semi-integrated in the production chain, are specialized in supplying components or are involved in various phases of production. Trade associated with linkages between production capacity located in different national positions and constant changes in the pattern's link is concentrated in components and intermediate products. It's justified almost entirely by the intra-industry variety. It often belongs to intra-firm relationships, but not invariably. Over 80s "quasi integration" rose at the cost of hierarchical vertical integration. Intra-industry trade continued to grow, especially for products with high added value. [12, p. 32]

The second type of abroad rationalization, which has developed at the other's cost is the horizontal integration, the subsidiaries of given countries are assigned by the transnational centres a "production mandate" for a certain variety of finished products. It is more likely that larger subsidiaries incorporated in international corporate structure following the merger and acquisition processes to be assigned such a status, because it facilitates the corporation integration process and merges the very different corporate cultures. Net trade effects created could be small – often the targeted corporation is acquired due to its market share, but the intra-firm trade part will increase, perhaps significantly. The activities of the branches will also grow; each production subsidiary should sell part of the complementary products from the total production of the corporation. [12, p. 32]

Firms increase their value by internalizing markets for these assets, amount which is increased in direct proportion to the market's size. Because these assets are based primarily on intelligence, companies cannot achieve efficient exchange. Therefore, firms increase their value by expanding overseas, if this can get a gain that exceeds the additional costs related to administration of a subsidiary. Multinationals are able to transfer and disseminate technology to measure and compare costs, to detect the best way to compete on price, quality and service in different countries. Market nature can also be a stimulating factor for intra-firm trade. Intra-American corporation trade is related in particular to manufacturing products, while intra-corporate U.S. alien trade is related in particular with marketing and distribution activities. [3, p. 425]

In conclusion, the relationship between FDI and exports is an extremely complex one, and empirical studies do not provide accurate answers. If you look at the relationship from the industry, country or global level trade and FDI simulate each other, and the effect of trade stimulating by the FDI exceeds than substitution effect. It's been proven, however, that for a product or a company in particular, FDI may substitute trade.

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