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Determinants of the National Competitive Advantage (NCA)

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Abstract

In the late 80's appeared the competitive advantage's theory, period during which there were more and more changes in the world economy, which imposed having made use of other theories that explain the flow of goods and services between countries. From these transformations we enumerate: the manifestation of imperfect competition, the existence of economies of scale, intra-industry trade, technical progress, pronounced trends of economic integration etc.

From the time of the first studies to date, the literature has abounded in works that have attempted to define and measure competitive advantage at both the national level and industry or enterprise level. At mid-90's had been founded various specialized institutes in order to clarify the meaning of the term and to classify the economies depending on their competitiveness.

Keywords: competitive advantage, competitiveness, fundamentals, production factors, cluster

1. Introduction

"The competitive advantages of nations" appeared in 1990, in a very dynamic historical context. We are only 1 year after the launch of the initiative known as "Washington Consensus", document issued by international financial institutions based in Washington, considered as reference material of neoliberalism based on market fundamentalism. There is a significant positive correlation between the recommendations from the "Washington Consensus", and recommendations expressed or implied in Porter's suggestions for governments (privatization, deregulation, financial liberalization, reorientation of public spending, trade liberalization). The insufficient academic rigor of "Competitive Advantage of Nations", its disproportionate promotion and subsequent efforts of the author in the World Economic Forum (WEB, the headquarter for promoting neoliberal competitiveness (for business exclusively) lead us to say that the theory of competitive advantage is less an intellectual product that tries to shed light on the causes of economic performance, but rather a tool to promote neoliberal ideology.

One of the criticisms of the diamond model is the fact that it primarily explains the advanced economies, but it is not relevant for developing economies or less developed (Cho & Moon, 2000). No wonder, during the time that Porter wrote the book, in the U.S. there was a major

concern for geopolitical and geo-economic competition, seeking solutions for the Asian challenge. Asian development model, firstly experienced by Japan and then by the new industrialized countries of South-East Asia, initially encouraged by U.S. with the containment policy of Soviet / Communist expansion, had become an instrument for consolidation of some powers which could have caused problems on long term for U.S. global supremacy or for US-European joint- political actor. Therefore, competitiveness that Porter invented hides geopolitical motivations and could not serve than to developed countries, especially the U.S. Later, Porter's team from WEF extends competitiveness model to other countries, differentiating determinants'shares according to the stages of development.

A further remark on the second external variable of the diamond that Porter introduces in the initial model: the chance. Basically recommending to governments to regulate in order to deregulate to support the diamond, Porter gives a major responsibility to governments in the demarche of competitiveness, without however, giving them the necessary tools. Somehow paradoxically, because deregulating, the governments gradually get out from the game. Variable "chance" makes a little easier the responsibility of governments and provides an excuse for any governmental failures.

According to Michael Porter in The Competitive Advantage of Nations (1990), it is necessary to develop a theory which goes beyond comparative advantage in order to explore the competitive advantage of nations. "It must be the result of higher concepts of competition, including markets'segmentation, products'differentiation, technological differences and economies of scale. " (Porter, 1990: 20).

Porter says it's self-evident that no country can be a net exporter in all groups of products. Precisely for this reason, international trade offers the possibility for increasing national productivity by eliminating the need for that country to produce by its own all the goods needed. Specialization must be realized in the areas where the nation is relatively more productive and to import goods for which areas the country concerned is less productive than foreign partners. Thus there is a national average productivity growth (Porter, 1990: 7). It should also be noted that according to his opinion, the national competitive advantage represents those "decisive characteristics of a country which allow its firms to create and sustain competitive advantages in certain sectors" (Cojanu, 1997:45).

Generally this favorable position is gained by firms in two ways: with an advantage of low cost and / or products'differentiation sometimes. Sources of competitive advantage based on costs can be the economies of scale, the technology used, preferential access to production factors, while the sources of competitive advantage based on differentiation can result from trademarks, product's features, delivery system, after-sales service and so on (Işan, 2004: 131).
Main factors which determine a competitive advantage for country are: endowment with factors, characteristics of domestic demand, domestic competitive environment, links between branches.

To these elements can be added in different moments the other two: the chance, respectively the government with the policies adopted.

Summarizing the main points of the paper which outlined the competitive advantage of nations we can say the following (Davies & Ellis, 2000: 6). Firstly, in order to record sustainable growth, a nation must achieve and maintain itself in the third stage, the one generated by innovation. Consequentially, the prosperity of an economy is determined only by the home country firms, which should form clusters in those fields which have a strong competitiveness diamond. In this way, foreign direct investments achieved abroad are a sign of competitiveness of that branch, while foreign investments achieved in the country betray a lack of economic competitiveness of that area. International success gained by the economic agents, cannot rely on factors related to comparative advantage's sources (such as the endowment with primary production factors), but on continuously updating and improving the industries by innovation, products' differentiation, brand and superior marketing strategies. Certainly many of the above ideas provide an open field for counterarguments and objections.

They soon appeared based on several arguments, namely:
• The model does not apply to small economies, as its elements which are exclusively related to the internal environment, do not take into account the competitive position of other economies.
• Porter did not keep faithful to his definition of competitiveness. If at the beginning the term is considered synonymous with productivity when he passes to analysis of competitiveness there are considered the companies most successful internationally based on their market's share (Folk, 2005: 69)
• The calculation of competitive advantage is deficient because the author had considered export's shares of firms, whether or not they have activities abroad.
Moreover, the external trades of these units are private as provenience country's competitiveness and not of the host country's.
• Porter believes that only investments from abroad were a sign of competitiveness of the industry, while foreign investments made in the country are a sign of lack of competitiveness of that sector.

Thus, appear extensions of the model like double diamond (Rugman and D Cruz, 1993), the generalized model of double diamond (Moon, Rugman, Verbeke, 1998), respectively the 9 factors'model (Cho, 1994). The main distinctive elements, which have these models compared to Porter's simple diamond refer to the division of production factors in physical and human and / or taking into account the international context and not just the internal one.

2. Methods and materials

From my point of view, competitive advantage (CA) arises and develops at enterprise level and then expands by aggregation at sector and national level.

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The fundamentals from which is obtained and then maintained the CA of a company in an industry (or several) are the condition, the structure and forecasts of production factors. No country or no internationally integrated economic area has the volume, the structure and the quality of the production factors, to obtain performance in all areas. Companies and authorities in a country will tend to favor certain industries (against others) because of the production factors'situation. Obtaining competitive advantages, but especially their maintenance is not determined only by the volume, the structure and quality of the production factors. NCA results from the cooperation of all elements of the porterian diamond.

Circumstances that contribute to maintaining and especially strengthening the CA are more important than the original ones which determined CA. Economic history has proved that static CA are ephemeral, the dynamic, adaptable to change are the basis for sustainable success. Therefore, industries in which a country will succeed best are those in which the diamond's elements are most favorable in order to give CA a dynamic character.

This does not mean that all firms in that industry have CA. In addition, the more dynamic is the national framework, the more intense will be the competition and the risk of loosing CA and of bankruptcy for a firm will be higher. More intense is the competition, the bigger is the effort to maintain CA.

NCA's defining elements are in an interdependent relationship, creating an interactive and dynamic system. I'll start from the driving element, the basis for any choice of specialization - production factors.

A. Production Factors (PF) - a source of competitive advantage

Production factors must be regarded both as the primary source of CA, but also as defining elements of the business environment: they are both effect and premise for the quality of business environment. This requires a comprehensive vision on PF. By general approach, they include production factors, classical and neofactors, and socio-economic context, the institutions and organizations on which depend the training, and their attraction in the economic circuit, their use, respectively their conservation (regeneration); natural-climatic conditions, the property system, the financial system, the system for payments and for transfers by which there are mobilized and allocated investment resources, the functioning system of markets and firstly of the production factors.

The volume, structure and quality of production factors are determinants of creating the CA. Moreover, the theory of comparative relative advantage (D. Ricardo) and HOS theory (Heckshner, Ohlin, Samuelson) regarding countries' endowment with production factors represented the favorite theories to substantiate countries' specialization and, on this basis, the economic reason for internal and international trades (trade).

In the perspective of the contribution of production factors to the creation and perpetuation of CA, the structural components of PF have different roles and importance.

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For the diagnosis analysis of CA and its forecast is useful to group and structure the PF according to several criteria:

a). By their nature: elementary production factors (natural resources, climate, geographical position, unskilled or average skilled labor) and complex production factors (highly qualified personnel, communications' infrastructure, research network, engineering, higher education, information, extent and nature of knowledge and so on). While the importance of the elementary production factors decreases (increases the importance of the complex ones), and investments are decisive in this context. Therefore the elementary production factors are more poorly paid, being primordial in ensuring CA in extractive industry, traditional agriculture, construction and public works, some services. In present, the crucial role in obtaining CA is due to the complex factors: they are more rare, are obtained with other types of investments also in relatively long term and innovation has the key role.

However, whenever and wherever there is necessary a minimum of simple factors (elementary), they are representing the basis for the creation of complex ones.

b). By their origin:

- Production factors usually inherited, provided by nature or created by previous generations
- Production factors created by investments, whose orientation and structure depend on the existing CA but conditioning the future ones;

c). By their capacity of alternative functioning:

- Non-specialized production factors (road network, rail infrastructure, basic skilled labor, electricity etc.),which can be used in a wide range of industries;
- Specialized production factors with specific characteristics which make them suitable and effective to be used only in certain areas, or even one (specific scientific and technical knowledge, certain methods of organization, particular raw materials); these factors are obtained mainly with private investments, are less available, have the innovation as their source and determine decisively the capacity of innovation and the obtaining of sustainable CA.

Note:

Often, the presence of specialized and complex production factors is both the cause and effect in relation with CA.

The volume, structure and quality of the production factors are influenced by all the other components of the porterian diamond.

Non-specialized production factors have a general purpose and are necessary to prevent a competitive disadvantage, but they itself are not enough to ensure a positioning advantage for a location (Porter, 2008, p/294). A location generates CA due to specialized production factors adapted to the needs of specific industries; this requires appropriate institutions and

mechanisms to generate production factors specialized in the specific areas, but able to act on certain selective disadvantages faced by those areas.

B. Performance and the competitive environment of related and supporting industries upstream and downstream

Related industries are those appearing in the line of value creation in a sector, whose contribution can be individualized: they provide complementary products (ex. computers and appropriate software for the activity in any industry); are involved in getting CA at any stage (link) of the value chain by: improvement of manufacturing technology, marketing, after-sales service from which stand out information‘s providers, methods of management, labor and equipment, which are a premise for labor productivity and capital.

A good cooperation with them is a premise for providing information about methods and innovative technical solutions compatible with the sector. In addition, a strong competitive environment inside the upstream and related industries and in the market where they are present represent the stimulus for improving production factors used for obtaining the final goods for the industry considered.

The best performance is obtained when there are clusters (REG = regional economic groups of interconnected firms). They concentrate representative companies engaged in activities, functions and subfunctions, components of the value chain. Concentrated in the same area, they have benefit from utilities and public goods (energy, infrastructure, relations with authorities) and for lower cost compared to the situation when they are dispersed. In the cluster can be sustained in more efficient conditions joint trainings and research (with teaching and research institutions) and the results’discharging in economic practice is operative and multilateral. Upstream and downstream industries are subject of two contradictory processes: of inertia and of innovation. Ability to adapt to changes imposed by complementarity is an essential component for maintaining and developing CA. Inertia moves the cooperation relations in other locations (internal or external) and implicit dislocates spatially the CA sources.

Extensive literature and theoretical and practical importance given to the clusters (REG) have several reasons:

I. With their help is underlined a more complete theory on competition and competitiveness of firms and NCA;
II. There is underlined the thesis that CA may originate from outside the firm, agents’progresses from REG may create more favorable conditions for increasing the company's productivity;
III. REG change the vision on economic policy targets: they need to be decentralized and directed towards REG and not towards concrete companies or domains (industries) which generate discrimination, privilege, paternalism and corruption. REG’s consolidation is the result of actions and private initiatives and of market mechanisms, but requires a specific management which has several phases:

- Identification of components of REG: it starts from a big firm or concentration of firms with similar activities, follows the knowledge of upstream and downstream and horizontal relations to identify domains which use the same distribution channels or produce complementary goods and / or use the same resources;
- There are identified organizations that provide personnel, technology, technical and monetary capital, specialized infrastructure services and institutions which protect REG interests;
- There is maintained a close relationship with regulatory agencies and authorities which influence the activity of members from REG.

Inside REG are typical:

- Cooperative relationships due to common interests, as more as there are many needs, common resources and problems for all the agents in the cluster;
- Specific cooperative relations between those who produce identical goods or substitutions in order to find solutions to specific issues;
- Direct competitive relationship between those who offer (buyers) on the same relevant market.
- The demand. It exerts one of the most powerful influences in the development and maintenance of CA. Existence of the demand is the first criterion considered for allocating the resources and starting a business. When confronting with the domestic demand is remarked the quality of goods and various forms of CA stand out. Businesses and industries in a country which impose CA in the relevant market prove that they understand, interpret and satisfy the demand on segments of customers better than their competitors.

For this, the followings represent importance:

- Knowledge of quality and of customer's requirements;
- Demand's segmentation;
- Anticipation of needs, income, and customers'preferences.

As a rule:

A big relevant market with growth's possibilities is the support for the CA (with economies of scale and of variety) stimulating the investments (for creating specialized and complex production factors);

On the domestic market, local firms (residents) have certain advantages compared to foreign ones (knowledge of language and legislation, cultural affinity, proximity). Therefore, to ensure access on foreign markets is useful to set up partnerships with resident companies, collaboration with the local advisory and consultancy firms;

Will own CA on foreign markets (including EU) only firms and industries that have proven being competitive in satisfying the domestic demand.

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CA is threatened and may be lost if domestic demand's structures change, and firms do not observe changes and loose local market and external, if buyers have more sophisticated requirements.

The issue has a particular importance, during recent years, in Romania.

In the context of rising incomes, especially in the transition from progressive taxation to the one with fixed rate a segment of active population has achieved substantial increases in net income unrelated with the productivity's developments.

Strategies, structure and competition of firms in each industry

For the evaluation of this factor we consider the general context in which firms are created, organized and managed; the number and balance of power between them; competition and cooperation, which are conditioning CA and the international success. M. Porter's studies haven't revealed, worldwide, any case in which a firm with national monopoly have CA internationally. Due to the protection and generous grants they receive, such firms may hold internationally CA only temporarily and then yield it to those dynamic and competitive fortified. A contributing factor to obtain CA is represented by the reduction and elimination of artificial restrictions for the new domestic or foreign competitors entering the industry: Intellectual property and lands'regulations, the amount of capital for starting business, elimination of discriminations for tax, budget, access to public orders and public services network (water utilities, common services and common transportation and so on) represent favorable factors to ensure and stimulate the competitiveness.

As a rule, only strong domestic competition creates competitiveness.

Economies where there are more powerful firms, rivalry requires a management for maintaining the CA, some activities being externalized in profitable conditions to areas with lower rivalries. Only a strong local competition makes companies compete and become a leader or at least taken in consideration on foreign markets only after wins the domestic competition in its sector due to the CA which had imposed it. Competition in every industry influences the evolution of other forces of the "diamond".

The state, economic policies and legal regulations

A systemic view on the competitive environment and on the factors on which the NCA relies, requires a supplement to the previous with the influences of public power, economic policies and legal regulations exercised on the four determinants of CA and the relationships between them. Therefore, many authors tend to consider the state as the fifth determinant of NCA in international competition because:

a). The state influences the creation and use of production factors by its budget policies, fiscal, monetary, environment, education and scientific research; it influences the dynamics and structure of demand by fiscal and budgetary policy, but also by state orders, trade policies and social protection, the state influences the development of upstream and downstream industries by competition rules, capital market, taxation etc. decisively determining the structure, strategy and competition in every industry. Emergence of global companies that promote global competition, reveals new facets of state's cooperation with other components of NCA.

b). The state, independently with the dominant ideology, has a fundamental objective: to ensure the framework for economic growth that creates wealth. Only this reason legitimizes it as general administrator of interests and particular conditions, autonomous and often conflicting. Such an objective is achievable by ensuring:

- An active partnership with private companies;
- That any global company, multi or transnational can benefit of privileged relationships with the national state in which has the basis or origin (there are no companies stateless) in terms of: the origin of most capital, shareholders, managerial culture and nationality of main managers;
- A privileged trust in relations between the state and domestic companies (despite EU's commitments and arrangements on non-discrimination and treatment's unity);

c). Any of the diamond's components which are conditioning the competitiveness and the CA are influenced in a less or higher measure by the quality of policies, regulations and actions of state's authorities.

The increase of international interdependences and the amplification of globalization phenomena generate the trend of erosion of the ability of governments to influence economic events. However, any democratic government cannot avoid responding specifically to the question how to maintain and / or increase prosperity?

The risk, hazard and various random factors are affecting each of the diamond's elements, but also during the development of interdependence relations. History demonstrates the role that risk (technical, social, political, innovational, natural), and the hazard have had on the evolution of some firms and on managers'decisions that led them to the fulminant developments on the national and international markets.

3. Conclusions

a). Due to the interdependence of "diamond porterian"'s components, it is difficult to delimit elements of cause from those of effect in the creation and development of CA.
b). Starting point is represented by the condition of production factors and by taking into account the influences which the other components exert on them. Productivity of production factors is ultimately the cause and the expression of competitiveness and CA. But the nature

and the quality of the production factors depend on the performances of structures involved in the creation of specialized and complex production factors, on the size and quality of competition and rivalry between firms in each industry, on the nature of relationships engaged with upstream and downstream industries and with the state, on how the structure and intensity of domestic and external demand are involved in decisions on directing investments for the creation and modernization of the production factors.

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