



Conceptual Limitations Concerning the National Intellectual Capital

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Abstract

In the context of the knowledge-based economy, creating wealth is directly related to building some competitive advantages based on intangible elements. Therefore, the elaboration of some models of the intellectual capital to facilitate the decisions and the developmental public policies presents a particular interest. The mastery of some solid conceptual and methodological foundations in terms of identification, assessment and management of the intangible resources in territorial profile is, thus, an obligatory condition of regional and national competitiveness.

Key words:

Intellectual capital, human capital, structural capital, relational capital, innovation capital.

JEL Codes:

B15, C46, D85, M20

1. Introduction

The increase of the intellectual capital's importance as a key source of wealth, prosperity and development has become an axiom of the knowledge-based economy (Bounfour, Edvinsson, 2005). In this context, we believe that the nation's wealth lies not only in its natural and physical resources, but also in the processes and technologies used to exploit them or, in other words, in the national intellectual capital. In the same line of argument, Edvinsson (2002) argues that the countries which will distinguish in the future by the wealth they possess will be those that have especially economic activities based signally on knowledge. The nations endowed with this type of capital in a greater measure will also record the most important economic and social progress. Examined from this perspective, the comprisal of the concerns for intangibles in the national political agendas is perfectly justified not only because of the need to adapt to the new conditions of the economic environment and synthesis of some new models of governance, but also because of the strategic importance, on long-term of the intangible resources in order to ensure the sustainability of nations' development.

Therewith, even if the intellectual capital has become a key factor for the national economies, the traditional accountancy, focused on highlighting the volume and efficiency of the „classical“ factors (labour, nature and capital) still dominate the analytical approaches of the economic growth policies. Usually, whenever it is

considered the internal and external potential of a country, it appeals to the study of the economic indicators based on the gross domestic product (GDP). There are numerous arguments which show that these indicators do not provide an accurate assessment of the future growth potential of a country, requiring tools to achieve a reliable assessment of the intangible elements that the respective country has. In agreement with this conclusion, we underline that the current obsession for planning, forecasts and different accounts based exclusively on tangible indicators will eventually end by theft and economic emasculation of the nations, exactly by the virtue of the fact that it neglects the really important variables – the intangible resources. The traditional accounting systems, by ignoring the value of the intangible assets, result unable to capture the real dynamics of national economies.

Thus, the practices of identifying and measuring the competitive capacities of a territory require an effort that goes far beyond the use of traditional batteries of economic and financial indicators. For this reason, there are absolutely necessary measurement systems of the national economy, containing both financial and non-financial indicators, reflecting the nation's endowment with intangible assets. Developing such systems requires statistics and information to explain, in a holistic manner, the economic development of a country. This aspect motivated various countries to conduct research on intangible assets from a macroeconomic perspective. For example, Holland was

one of the pioneer countries in terms of accounting of the investments in intangible assets. Subsequently, the UN Statistical Commission created in August 2002 the Cambera Group II for non-financial assets, with the objective to propose changes in the System of National Accounts. Also, the Statistical Offices of countries such as Sweden or Italy carry out macroeconomic studies regarding the investments in intangible assets. Starting with 1988, the Statistical Office of Sweden has carried out yearly a study which includes the determination and analysis of a set of indicators regarding the intangible investments of the firms with over 500 employees, while the Italian National Statistics Institute is involved in collecting and processing statistics on informational society, technological innovation, development and exploitation of the human capital.

At the same time, it is also true that the public powers of the nations may influence the level and the evolution of the intellectual capital. There are two fundamental aspects that interfere in the processes of accumulation of the intellectual capital of a country: the creation of a performant network of innovation and research and an efficient educational system. To these two essential conditions are added the existence of some institutions and policies to favour the dissemination of knowledge, as well as the recognition and protection of the intellectual property. Other factors which interfere in the process of growth of this type of capital are:

- A flexible labour market.
- Easy access of firms to capital.
- A quality technological infrastructure.
- Educational and cultural standards of the country.

The leaders of the national economies should try to design reliable mechanisms to allow the measurement of knowledge resources in order to understand the way in which these will interfere with the future evolution of the nation.

2. Conceptual limitations concerning the national intellectual capital

The concept of intellectual capital of a territory has a wide variety of definitions. For example, Malhorta (2000) defines the intellectual capital as those „hidden“ or „invisible“ assets from which the economic growth of the country, region or locality feeds, as well as the economic value added to the groups of interests that control the respective assets. Bradley (1997) defines the country's intellectual capital as its ability to transform knowledge and intangible resources into wealth. Concurrently, Bontis (2004) states that the idea of intellectual capital of a territory includes the „hidden“ values that reside in individuals, firms, institutions, communities, regions and which represent current sources and potential of creating wealth. The intellectual capital of a territory is the result of the

combination of some immaterial or intangible assets such as reputation, quality of life, knowledge held by the population, as well as the practical interpretation of this knowledge, a combination which generates or it will generate in the future welfare for the considered territory. It is observed, without any difficulty, the implicit relation between the economic growth and the factors of intangible nature, which materialize into at least two dimensions of knowledge: technological structure and the capacities of the inhabitants of that territory.

3. Components of national intellectual capital

Regarding the components of the intellectual capital, numerous authors state that it is divided into human capital, customer (or market) capital and structural capital, the latter consisting of process capital and innovation (renewal) and development capital.

The *human capital* of the nation consists of the intellectual wealth of its citizens and can be developed through education, professional experience and learning acquired throughout life. That is why the human capital may be defined as knowledge, skills, experience, education and competencies of the inhabitants of a country, which facilitate the achievement of the strategic objectives of the nation. The rapid technological progress in information and communications in recent years have determined the increase of the demand for a new type of worker, one who masters skills, attitudes and intellectual abilities that lead to a systematic and critical thinking in the context of a purely technology-oriented professional environment. Because of this, we must specify that the fluidity of knowledge dissemination and circulation of information is more important than the place of residence of those who hold them. Thus, the process of creating value within countries depends on the level of development and renewal of the human resources, which transforms into the platform of economic development of the entire nation. Schultz (UNESCO, 1991), highlighting the importance of the human capital, believes that barely a quarter of a country's income can be explained by the physical capital, while the rest is generated by people. The role of the nation consists in guiding and supporting the individuals so that they, in turn, may follow the national strategic objectives. In this perspective, some key elements are represented by the indices of the quality of life and life expectancy, infant survival rate, health and education levels, the education of the immigrants, criminality rates and demographic tendencies. However, the measurement of this intellectual capital presents serious problems as it is quite difficult to conceive indicators to capture with accuracy and quantitatively the knowledge held by individuals and organizations.

The *customer (market) capital* represents that part of the intellectual capital which manifests in the relations between nations. This capital results from the capacity to offer attractive and competitive solutions in a more efficient and effective way than the competitors do, in order to satisfy the needs of the country's international customers. Countries wishing to develop a culture of the innovation will have to disseminate knowledge efficiently, not only within its own borders but also beyond these, condition which makes absolutely necessary the opening of the country to the exterior. International trade constitutes an unequalled vehicle in terms of the capacity of spreading the innovations and improvement of the quality of goods and services. The relations within the country and with the foreign countries improve the ability to create knowledge and contribute to the acquiring of the skills to apply the knowledge in order to extract the economic value (Sullivan, 2000).

The *organizational (structural) capital* includes resources such as hardware, software, databases, patents and licenses, trademarks, research and development, etc. that support the productivity of the individuals through the transmission and sharing of knowledge. As in the case of the customer capital, the assets that belong to the organizational capital are acquired by the territory and remain within its boundaries even when the individuals who use them abandon the country. The organizational capital consists of two elements (UNESCO, 1991): the process capital and the innovation and development capital.

The *process capital* refers to the processes and activities that facilitate the creation, growth and transmission of the knowledge that the nation holds. These items are included in the technological, communication and information systems, resulting in the hardware, software, databases, laboratories, processes and management systems, organizational structures used in the considered country. It is necessary to mention that there is no sufficient substantial amount of investments in these assets, more important being their correct exploitation. For example, it is not sufficient for a nation to have a consistent information infrastructure, more relevant being the proper correlation of this infrastructure with a superior level of the economic efficiency achieved by the territory or with a superior administrative efficiency. The *innovation (renewal) and development capital* reflects the country's ability and desire to self-renew, constituting the equivalent of the potential for future

growth. Within this capital are found the capacities and the investments allocated to development and research, patents, trademarks, scientific publications, firms that create and use disruptive technologies.

4. Conclusions

Any territory that intends to consolidate its own competitiveness must evaluate, analyze and manage the intangible capital. By the management of this capital is intended to ensure an efficient control over the elements of differentiation that allow the increase of the welfare of the population and creating some competitive advantages. A nation that wishes to develop must learn to manage the economy of the intangibles in the framework of some coherent public policies. In order to manage correctly the national intellectual capital it is necessary a measurement system to facilitate its description and accounting, as well as the systematic monitoring of the evolutions recorded by this capital.

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