

## THE DEMATERIALIZATION OF ECONOMY - THE ANALYSIS OF THE CORRELATION BETWEEN IMMATERIAL CAPITAL AND SUSTAINABLE DEVELOPMENT

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*The consumption of material goods remains a strong engine of the economy producing goods and services, but having a destructive effect upon resources, until their exhaustion. For this reason, during the past two decades, the economy of developed countries evolves towards dematerialization, a path towards the sustainable development of the Western model. A shift has occurred from the economic system where the competitive advantages mainly depended on material and financial resources managed and controlled by companies to an economic system where performance is more and more conditioned by the complex of immaterial resources created through the previous corporate activity or to which they have access. The global economic system is therefore on the way of becoming one of “technological ideas and innovations”, where the potential of corporate “intellectual capital”, represented by: organizational knowledge and skills (organizational capital), staff loyalty and cohesion (human capital), company credibility (relational capital), becomes a competitive lever for economic survival. Corporate value is and will become more and more immaterial because economy itself follows this trend. The superiority of market value compared to the accounting value of a company (its goodwill) is often explained by the fact that it possesses and develops immaterial capital. By valuing this type of capital, it is possible to reduce or substitute the other means necessary to create wealth (human resources, technical means, financial resources, etc.). It is obvious that the changes that occur in the global society require enterprises to be socially responsible, preoccupied with excellence, social value, and investments in intelligence, in the larger context of knowledge management.*

**Key words:** sustainable development, dematerialization of economy

The consumption of material goods remains a strong engine of the economy producing goods and services, but having a destructive effect upon resources, until their exhaustion. For this reason, during the past two decades, the economy of developed countries evolves towards dematerialization, a path towards the sustainable development of the Western model. A shift has occurred from the economic system where the competitive advantages mainly depended on material and financial resources managed and controlled by companies to an economic system where performance is more and more conditioned by the complex of

immaterial resources created through the previous corporate activity or to which they have access. The global economic system is therefore on the way of becoming one of “technological ideas and innovations”, where the potential of corporate “intellectual capital”, represented by: organizational knowledge and skills (organizational capital), staff loyalty and cohesion (human capital), company credibility (relational capital), becomes a competitive lever for economic survival. Corporate value is and will become more and more immaterial because economy itself follows this trend. The superiority of market value compared to the accounting value of a company (its goodwill) is often explained by the fact that it possesses and develops immaterial capital. By valuing this type of capital, it is possible to reduce or substitute the other means necessary to create wealth (human resources, technical means, financial resources, etc.). It is obvious that the changes that occur in the global society require enterprises to be socially responsible, preoccupied with excellence, social value, and investments in intelligence, in the larger context of knowledge management.

## MATERIAL AND METHOD

This paper is the result of a series of considerations, and of a process of investigation, critical, and comparative interpretation of studies made at a national and international level, regarding the topic of this research. In order to point out the interdependence between the valences of immaterial capital and the sustainable development of organizations, we have mainly resorted to an analysis of the current theoretical frame and to a bibliographical synthesis, which has helped us state original viewpoints regarding the topic of this research.

## RESULTS AND DISCUSSIONS

At present, in developed countries, the most important production factors have an immaterial nature: commercial brands, reputation, research and development, software, patents, staff competences, relationships with the third parties, quality of strategy, etc. As a result, the value of a company can be measured according to the size of its material patrimony, but it also resides in its ability to acquire, generate, and distribute immaterial resources, as well as to use knowledge strategically [8].

The analysis and evaluation of the elements that compose the immaterial capital of a company require first and foremost its correct definition and identification. The study of specialized Western literature has allowed us to notice that some authors attempt to define and acknowledge the elements that provide contents for immaterial capital in close connection with their ability to be recorded or not in financial statements [4]. Therefore, the following are defined: “visible immaterial resources”, which are recorded as items in statements because their market value has been determined through a transaction, respectively non-corporeal assets, and “invisible immaterial resources”, which are not recorded as items in financial statements, and which make up the “intellectual capital” of the company (*table 1*).

Table 1

**Definition of immaterial capital**

Immaterial capital	“Visible immaterial resources”  (Intangible assets)	<ul style="list-style-type: none"> <li>- Foundation expenses;</li> <li>- Development expenses;</li> <li>- Patents, licenses, brands, concessions, copyrights, and similar values;</li> <li>- The commercial fund;</li> <li>- Advances and current intangible fixed assets, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- National and international accounting regulations (IAS 38) state the criteria for the classification, recognition, and evaluation of intangible assets.</li> </ul>	The foundation of the company's strategy with a crucial role in achieving competitive advantages and accumulating value
	“Invisible immaterial resources”  (‘Intellectual capital’)	<ul style="list-style-type: none"> <li>- Knowledge, abilities, experiences;</li> <li>- Staff loyalty and cohesion;</li> <li>- Balanced contractual relationships with third parties;</li> <li>- Company credibility and its ability to be socially responsible.</li> </ul>	<ul style="list-style-type: none"> <li>- Some researches are concerned with creating methodologies for an objective evaluation and recognition of “intellectual capital” in accounting.</li> </ul>	

Corporate immaterial capital mainly exists because of the employees, who are “the most valued good” of the company, as they have the competences and skills that primarily belong to each individual and then to the company. If an organization as a significant customer portfolio or a recognized brand, it is due to its specialization in marketing; if a new product includes numerous knowledge and innovations, it is due to the company’s researchers and engineers. Work contracts give the company the right to control the competences of its employees in a limited way, and staff mobility requires managers to be prudent when trying to base their strategy on staff-specific competences [5]. Studies demonstrate that the value generated by corporate human capital is often higher than 50% of the value created by corporate immaterial capital, and a partial loss of human capital can have catastrophic consequences on the competitive advantages and on the corporate market value [2]. Stock market gives this capital an ever-higher value. Stock price goes up while the value of the immaterial capital of a company is not diminished and it is not reproduced by rival companies. Corporate value is and will become more and more immaterial because economy itself follows this trend.

In spite of the fact that “invisible immaterial resources” become ever more important in the process of value creation, their failure in being acknowledged in accounting has contributed to the loss of information valences of the financial situations for investors. The analysis and evaluation alone of the values recorded in the statement do not provide direct and complete information concerning the extent to which “invisible immaterial resources” condition organizational performances and are reflected upon the processes of sustainable development of its value. This situation can lead to a non-productive allocation of the investors’ resources, to an incorrect orientation of the investment strategy, to an undervaluation of the shareholder’s heritage, and to an increase of the cost of capital. The investor’s

pressure and the demands of financial markets concerning the quality of organizational information and performance analyses require the companies to voluntarily publish information that explain the immaterial investments made to create value in the future. This information completes and provides greater credibility to the regulated information synthesized in financial statements. Therefore, the voluntary information offer concerning immaterial capital has the role to reduce the informational asymmetry between managers and shareholders, on the one hand, and between creditors and shareholders, on the other, thus contributing to ensuring organizational sustainability. In order to preserve and increase the shareholders' heritage, as well as to remain in the company's leadership, managers need to adopt a strategy of voluntary publication of the information that would allow the evaluation of the updated value of future cash flows, which in their turn determine the rate of the shares and the cost of capital. The voluntary offer of information regarding immaterial capital can diminish the agency costs related to the divergence between creditors, shareholders, and managers. Building the investors' loyalty requires companies to always remain visible, providing complete and pertinent accounting information [1]. Thorough the information concerning immaterial capital (technological and human competences, organizational capital, intellectual property rights, etc.), managers signal the quality of their company and communicate to financial markets their ability to optimally manage resources, so as to obtain the best financial performance.

Sustainable development needs a system for measuring, evaluating, and decision-making that would take into account the inter-dependencies between economic, social, and environmental factors, which would reveal the dynamics of "invisible immaterial resources", so that the results recorded in the balance sheets and the company's value are not distorted. The evaluation of "invisible immaterial resources" is difficult to achieve, especially since no standardized criteria are acknowledged in this respect. In the context of the changes in global economy, the evaluation and analysis methodology complementarily and progressively integrates the extra-financial (non-financial) component. It quantifies non-financial performances derived from the use of immaterial capital, which concentrates most of the company's opportunities for growing and developing.

The foundation of the company's strategy for sustainable development based on its ability to obtain future performance and competitive advantages, through the use of immaterial resources, implies a series of precautions that derive from the characteristics of the elements that compose these resources. Therefore, it is relevant to stress:

a) *The difficult quantification of "invisible immaterial resources"*, which mainly require a qualitative evaluation through extra-accounting indicators. A series of indicators have been created, which, at least indirectly and partially, allow analyzing these aspects. These indicators are named in Western specialized literature "future indicators" [4] and have been built starting from certain negative components of the results of the fiscal period, respectively expenses imputed to the current year, which will generate profit after a number of years. The following can

be distinguished: indicators related to the size and variation of the expenses for research and professional training, considered by managers as investments for the future, whose purpose is to create innovative technologies and to stimulate the level of professional creativity, which allows the company to launch new products or to improve the existing ones; indicators related to the dimension and changes in the marketing expenses, which absorb an impressive quota from the resources destined to the company's development. According to these two groups of indicators, a series of performance indicators can be determined, which are the expression of organizational knowledge and skills, of the staff loyalty, and of the credibility earned by the company.

b) *The impossibility of companies to exert full control over certain immaterial resources*, especially over those based on human competences. There are companies that provide professional services whose competence is determined by the skills of the personnel, skills that belong, first of all, to each individual, and only then to the company. The ambiguity of the company in what concerns its control and possession over human skills and competences has negative consequences on its ability to ensure the yield of resources and to obtain profits that condition the company's sustainability [5].

c) *The duration and rate of depreciation of the elements that compose immaterial resources is variable*, which has implications on preserving the competitive advantage and on the flexibility of the strategy. Therefore, for example, the value of patents decreases in time, as new technological innovations appear, while the value of consumption goods is more stable, and the company's reputation is valid on the long run.

d) *Copying immaterial resources from the competition is sometimes difficult and counter-productive*. Certain immaterial resources are specific to a company (technological knowledge, brands, etc.) and lose their value once they are transferred to another company. Others, such as company reputation, can be entirely specific to one company and although they are very precious to a certain organization, they may have no market value for another. The risk of seeing a company's immaterial resources acquired by the competition is very low because, usually, the company uses complex groups of resources. The differentiation and non-transferability of immaterial resources to the competition has favorable implications on organizational performance.

e) *The difficulty to acquire the elements that make up immaterial capital* is derived from the fact that these resources require, in order to be obtained or built, considerable effort and time compared to acquiring tangible assets. This capital is the result of past expenses (research, professional training, investments in technology, marketing, etc.), called "investments in the future", which will generate economic benefits in a given exploitation context [5].

As we can notice, some of these precautions can be considered true motivations for taking into account immaterial capital as a foundation for the strategy for the sustainable development of any company.

## CONCLUSIONS

Immaterial capital is a very important resource in determining the success of any organization. Organizational performance depends on the way in which material, financial, and human resources are managed and controlled, as well as on the set of immaterial conditions created through the previous activity of the company.

The strategies that use immaterial capital guarantee competitive advantages for the company, as well as market power and sustainable existence compared to its rivals. It is important to find accounting procedures that would evaluate and reveal the dynamics of “invisible immaterial resources”, so that the results recorded in financial statements are not distorted and meet the information requirements of the investors.

The methods of measuring value have been left behind the new reality [8]. Sustainable development needs a system for measuring, evaluating, and decision-making that would take into account the inter-dependencies between economic, social, and environmental factors, which would reveal the dynamics of “invisible immaterial resources”, so that the results recorded in the balance sheets and the company’s value are not distorted.

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