THE ESTABLISHMENT OF AN INTELLECTUAL CAPITAL MODEL IN REAL COMPANIES: TEACHING AT UNIVERSITY MASTER DEGREES

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ABSTRACT

When we talk about Intellectual Capital or intangible resources, we distinguish between intangible assets and core competencies. Numerous authors believe that not all intangible resources or Intellectual Capital have equal importance; core competencies are considered the most important resources; they are the set of skills or capacities developed by the company that generate significant value or benefit for the client (Prahalad and Hamel, 1990; Hamel and Prahalad, 1994). We pay attention to the last ones: core competencies, concretely, those linked to each IC dimensions: competencies linked to Human Capital, competencies linked to Structural Capital and competencies linked to Relational Capital.

It is really true how important the intangible resources or Intellectual Capital´s competencies are in our society to increase our economy success. It is a fact the great effort made during some years ago by academics to establish a good intellectual capital (IC) model to be used by real companies, and also the high difficulties founded to implement them efficiently due to the lack of information to value intellectual capital properly. For that, the aim of this work is to show how a proper intellectual capital model proposed could be applied by real companies, and also, be taught at university master degrees to be considered as important as it really is.

Keywords: Intellectual Capital, model, teaching, innovation, value

INTRODUCTION

It is widely accepted that intangible resources are those that generate economic growth in many economic sectors. Investing in intangibles is the path that companies must follow to consolidate their competitive position and ensure long-term growth.

Numerous authors acknowledge that knowledge is the main value source of corporate intangible resources (Marr and Ross, 2005). Marshall (1890) already recognised the importance of knowledge as a significant resource and a powerful production factor. However, the interest in measuring and managing intangibles, in particular those due to knowledge −"intellectual capital"−, did not emerge until the mid-1990s, when models began to be developed (Edvinsson, 1997; Edvinsson & Malone, 1997). Factors that contributed to increasing the importance of intangibles in the company have been, on the one hand, the increasing business competences driven by the globalisation of the markets and, on the other hand, the advent of the information technologies, whose greatest exponent is the Internet boom.

Today's society is noted the knowledge-based society. Knowledge is the main strategic resource that is capable in itself of generating new knowledge. Therefore, intangible resources have become the competitiveness base for any company, as their ownership

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provides the company with the opportunity to generate sustainable competitive advantage and increases the value of the company.

Also, it is a fact the great effort made during some years ago by academics to establish a good intellectual capital (IC) model to be used by real companies, and also, the high difficulties founded to implement them efficiently due to the lack of information to value intellectual capital properly. For that, the aim of this work is to show how a proper intellectual capital model proposed could be applied by real companies, and also, be taught at university master degrees to be considered as important as it really is.

The methodology proposed consists on a model of IC based on real indicators (financial and non- financial).

The paper is structured as follows: the second section, on the grounds of Resource Based View, justifies the key role of intangible resources in business competitiveness, and knowledge management origin. It likewise reviews the literature that considers the relevance of knowledge-based intangibles, that is, Intellectual Capital. The same section also considers the dimensions of Intellectual Capital and the competencies concept. Later, the methodology used is subsequently set out in the third section. The results and conclusions obtained are contained in Section four.

KNOWLEDGE MANAGEMENT: RESOURCE BASED VIEW, INTELLECTUAL CAPITAL AND COMPETENCIES

Resource Based View has been a decisive contribution to strategic management. This emerged after years of domination of Industrial Organisation (Porter, 1980, 1985) where the competitive advantage of companies was exclusively justified by their belonging to specific economic sectors and the position maintained therein.

However, the empirical evidence doesn't fully support this theory. At the same time, different authors noted that companies have or control a wide variety of resources and combinations of them (capabilities) that are essential for the company to be able to operate. These resources have intrinsically different levels of efficiency, some of which are superior to others. Therefore, companies endowed with superior resources will have a greater likelihood of better perform, provided that the cost of acquiring them is lower than the value obtained as the result of the competitive advantage generated by those resources (Barney, 1986, 2001). This is the origin of Resource Based View.

There are different names for these resources that are so fundamental: "critical resources"(Wernerfeld, 1984), "strategic factors" (Barney, 1986), etc

Amit & Shoemaker (1993) highlighted five characteristics that differentiate them: inimitable, rare, valuable, non-transferable and non-substitutable. We have added durability to the aforementioned characteristics.

Intangible resources are those that, lacking a financial or physical form, and being constructed by the company over time, combine all these requirements with more facility, and therefore become more frequently the key factor of business competitiveness (Lev, 2001). This statement is particularly applicable to the intangible resources based on knowledge, that is, to intellectual capital.

The information society requires new competitive mechanisms, fundamentally based on intangible resources. Therefore, intangibles, according to Cañibano et al. (2004), have become an area of huge interest not only to academics, but also to managers. Intangibles are the elements that guarantee the success of a 21st-century organisation, and enable a company to build up sustainable competitive advantages.

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According to Sánchez (2003), intellectual capital is the combination of intangible resources or intangibles of an organisation, including personal knowledge, capacity for learning and adapting, relations with customers and suppliers, brands, internal processes, R&D capacity, etc., that, irrespective of whether they are reflected on the financial statements, are directly or indirectly controlled by that organisation and generate or will generate future value for the company, so that they can underpin sustained competitive advantage.

When grouping and classifying the elements which make up IC, there is a certain consensus about the three components or basic dimensions: Human Capital (HC), Structural Capital (SC) and Relational Capital (RC) (Stewart, 1997; Cañibano et al., 1999; Brennan and Cornell, 2000; Roos et al., 2001; Kauffman and Schneider, 2004; Rodríguez-Castellanos et al., 2006; Alama, 2008; Bueno, 2011; Miles, 2011; García-Zambrano, 2016).

IC is also related to the creation of value in the company (Lundqvist, 2000; Ordóñez de Pablos, 2002; Chen et al., 2005; Rodríguez et al., 2006; Tan et al., 2007; F-Jardón and Martos, 2009; Cheng et al., 2010). Elsetouhi and Elbeltagi (2011) explained how the management of IC has a positive impact on innovation, and therefore, on the creation of value.

HC is the set of productive capabilities that the staff of the firm acquires by accummulating specific or general knowledge (Becker, 1967). Therefore, it is an intangible resource supported by individuals that can be accumulated and used simultaneously in different operations.

Fernández et al. (1998) and Marr and Roos (2005) consider that it is the dimension that provides greater value for the company.

There are a significant number of empirical studies that have shown the positive relationship between HC and results (Guerrero and Sire, 2001; Bontis and Fitz-enz, 2002; Cabanelas and Arévalo, 2003; Hermans and Kauranen, 2005; Alama, 2008; Miles, 2011; Rodriguez-Castellanos et al., 2011).

Investment in employee training is considered as the main variable covering investment in HC (Koch and McGrath, 1996; Bukowitz and Petrash, 1997; Ordiz Fuertes, 2002). Danvila del Valle (2005) notes the strategic importance of employee training as a factor to generate HC, which involves obtaining sustainable competitive advantages that lead to better business results.

On the other hand, Relational Capital can be defined as "the combination of knowledge that is incorporated in the organization and people, as a consequence of the value derived from the relationships which they maintain with market agents and with society in general" (Bueno, 2011: 23). We know that nowadays in such a fiercely competitive environment, the key for creating profit and improve performance is to win the loyalty and trust of customers and to build long-term friendly relationships with them (Huang and Hshueh, 2007).

Finally, Structural capital refers to the combination of intangibles that remain in the company even if a worker decides to leave.

When we talk about Intellectual Capital or intangible resources, we distinguished between intangible assets and core competencies.

Intangible assets are "codified" intangible resources, so that the relevant rights regarding their holding or ownership by the organisation are clearly established, by means of a contract, a regulation or any other legal title. Patents, concession rights, licences, acquired trademarks, and so on, are intangible assets.

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The core competencies are the set of skills or aptitudes developed by the company that generate a significant value or benefit for the client (Prahalad and Hamel, 1990; Hamel and Prahalad, 1994). Therefore, they are the sources of knowledge and activities that, by providing competitive advantage, are the determining ones when it comes to create value. The core competencies of a company are not usually very numerous, as, in order to achieve their competitive advantage, the majority of the company's focus their endeavours and internal resources on a few sources of knowledge, services or activities (core business).

Numerous authors think that not all the intangible resources have the same importance, those that are called core competencies are the most important ones. Core competencies are the set of skills or capacities developed by the company that generate a significant value or benefit for the client (Prahalad and Hamel, 1990; Hamel and Prahalad, 1994). So, a correct management of these core competencies allows companies to obtain competitive advantages and better business results.

For that, we consider convenient to manage these competencies in a proper way to increase the value of companies. The next section analyses the model proposed to manage these core competencies

INTELLECTUAL CAPITAL MODEL: PROBLEMS RELATED TO FINANCIAL VALUATION OF INTANGIBLE RESOURCES AND A PROPOSED MODEL

Many authors emphasize the importance of intangibles, but at the same time note the difficulty of identifying and quantifying them (Grant, 1991).

During the 1990s, studies on the evaluation of intangibles focused primarily on measurement. Measurement performs two tasks: first, it seeks to identify and order intangibles; second, it searches for indicators to measure them. These indicators are mainly ratios. This means that the measurement of intangibles has been approached in non-monetary terms.

Measuring intellectual capital became a main research area in the 1990s. The importance of intellectual capital comes from the fact that traditional accounting systems do not reflect reality for managers or investors in such a way that they understand how their resources – many of which are intangible – create value in the future.

When you can measure what you are speaking about and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express in numbers, your knowledge is of a meagre and unsatisfactory kind (Liebowitz and Suen, 2000, p. 54).

Measurement and financial valuation of intangibles help to recognize organizational knowledge flows and critical intangibles, to accelerate learning patterns, identify best practices, disseminate them across the firm and increase innovation (Kannan and Aulbur, 2004)

All of the above intellectual capital measurements contribute a lot to measuring intellectual capital from diverse points of view, but unfortunately, methods of measuring intellectual capital have been slow to develop. The proposed model has the following characteristics: a) Relevant to final users b) Provide useful management information c) Is operational and manageable d) Is easy to understand e) Refers to the cognitive areas of strategic importance operating system The significance of this IC measurement model lies in its ability of providing timely necessary information for the manager of a company, which thus enables him/her to modify their strategies of IC management according to the specific situation, to obtain and make full use of knowledge, and to achieve long-term competitive excellence.

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The model is represented by 3 components: human capital, structural capital and customer capital. Each component is linked to some specific indicators based on competencies.

Human capital dimension is covered using these aspects: a)Belonged feeling, b)Self-motivation, c)Worker satisfaction, d)Flexibility and adaptability, e)Creativity, f)Education, g)Training for employers, h)Experience, i)Personal development, j)Employeer productivity.

Structural capital dimension is covered using these aspects: a)Working partner climate, b)Organizational style, c)Organizational development, d)Learning environment, e)Knowledge development, f)R+D+I people, g)R+D+I investment, h)R+D+I projects and processes, i)Technologies dotation, j)Patents, k)Registered brands, l)Dominions, m)Competitor knowledge.

Relational capital dimension is covered using these aspects: a)Number and quality of clients, b)Satisfaction of clients, c)Distribution network, d)Suppliers, e)Suppliers 'answer capacity, f)Quality certificates, g)Public administration collaboration, h)Unions' relations, i)Familiar life´s conciliation, j)Company´s input related to social value and environmental issues.

After analyzing the elements that are included into the three dimensions, we obtain some different conclusions and give some improvements´ recommendations for companies.

We consider convenient to analyze the evolution of these elements during some period of time to compare the obtained results. Also, it is important to take into consideration a possible comparative among the non-financial indicators proposed and some financial indicators. And finally, the process finishes some final recommendations for companies to take into consideration to improve results.

RESULTS AND CONCLUSIONS

Although there has been an explosive interest in an intellectual capital and a thirst for information on how it might be managed, there has been little written to describe or define the concept. The aim of this work is to define an efficient way to manage intangible resources, especially those where the company does not have so much influence or power, that is, competencies.

The main contribution of this model is to define the main aspects related to each dimension of Intellectual Capital to cover all aspect and propose indicators. Also, it is important to consider a large amount of periods of time to compare the obtained results in each company and no only non-financial indicators; it is really important to consider also financial ones to do a comparison of the results. Finally, it is important to bear in mind the possibility of including these concepts in master degree courses to aware people of the importance of intangible resources, especially competencies, and the management of them really inside companies.

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