

Original Article

# The Management of Intellectual Capital as a Tool for Decision-Making in SME's

Zulema Cordova Ruiz<sup>1</sup>, Sósima Carrillo<sup>2</sup>,  
PhD. Loreto María Bravo Zanoaguera<sup>3</sup>, MIBA. Patricia Guadalupe García Cabrales<sup>4</sup>

<sup>1</sup> A Research Professor at the Autonomous University of Baja California, Mexicali, Baja California.

<sup>3</sup> A Research Professor at the Autonomous University of Baja California, Mexicali, Baja California

<sup>3</sup> A Research Professor at the Autonomous University of Baja California, Mexicali, Baja California

<sup>4</sup> A Professor at the Autonomous University of Baja California, Mexicali, Baja California

**Abstract** - Intellectual Capital has crossed the financial barrier to become a highly used strategy in the business and academic environment of modern organizations, becoming an important tool in the decision making of companies, which is a modern technique of management that maximizes the contribution of organizations to society, constituting the measurement of Intellectual Capital a fundamental and necessary part to know the true value of the company and organizational development. The objective of the paper is to present the results of the state of intellectual capital management in SMEs of Mexicali, BC, and how they apply it for decision making 43 companies were evaluated in relation to practices, processes, use, and organizational features to manage decisions. The research is quantitative, descriptive, non-experimental, and transactional. The measuring instrument was a questionnaire developed constructed with a Likert scale, which was subjected to statistical tests to determine reliability, obtaining a 0.946 Cronbach's alpha.

**Keywords** - Intellectual capital, Management, decision making

## I. INTRODUCTION

Intellectual capital results from articulating the organizational assets that constitute human capital, structural capital, and relational capital in an agile, dynamic and flexible manner. When talking about organizational assets, we are referring to that portion of the resources available to the organization and that dynamist the processes that take place within it. Intellectual capital can be considered as the accumulation of knowledge that organizations have that allows them to be competitive over time. In this sense, Drucker (1993) considers that the dynamics supported by the markets worldwide, provided the necessary scenarios for the society, dominated by administrative processes aimed at managing physical resources, will evolve by structuring a new paradigm, in which the most relevant strategic asset is knowledge capable of generating sustainable economic benefits. Focusing on organizations and their management practices is about knowing what

knowledge implies, how it is created and can be managed. Knowledge management, based on a set of processes and systems, seeks to significantly increase the intellectual capital of an organization, by managing its capabilities to solve problems efficiently (in the shortest possible time), with a final objective: to generate efficient decision making that leads to the identification of sustainable competitive advantages over time. For organizations to have sustained growth and improve their competitiveness, they need to innovate, which entails developing and implementing strategies with which new products and production methods are introduced and developed, the incursion into new markets, or the restructuring of the same company (Pomar, Rangel, and Franco, 2014). However, it is worth mentioning the lack of innovation in SMEs, which prevents them from competing in a strong way and obtaining positive results. In this way, for a company to be competitive, it is essential that it innovates more than its competitors (Pomar, et al., 2014). In turn, both the size and the structure of the organizations are seen as decisive factors for them to have the capacity to innovate (Dovey and Mooney, 2010). Nowadays, there is a need to generate and in turn establish suitable conditions for the progressive development of SMEs. This is through strategies and policies that provide them with the necessary potential for decision-making, innovation, capacity to respond to a rapidly evolving economic environment, as well as resources that successfully adapt to a changing and interrelated society (Demirbas, Hussain and Matlay, 2011).

## II. LITERATURE REVIEW

At the end of the 20th century and the beginning of the 21st century, the main source of wealth creation, and Prussak's (1996) assertion is becoming increasingly true, the main source of creation of competitive advantages of a company resides fundamentally in his knowledge or more specifically in what he knows, in how he uses what he knows and in his capacity to learn new things pertinent to the organization.

Currently, there is a large number of studies regarding intellectual capital as a determinant for



competitiveness and business performance, but there are not many studies that analyze the relationship between intellectual capital and innovation (Fan and Lee, 2012). When talking about intellectual capital, it is common to talk about intangible elements with a strategic nature, which contribute to the generation of value in the company and that are not present in their financial statements (García de León, 2007), defining said elements as the intangible resources with which through its combination, the company develops both its functions and its activities (Martín de Castro, 2003). Given their nature, these resources tend to be the most criticized by organizations, due to the difficulty of defining them clearly and accurately (Lenciu, 2012).

Human capital is made up of those intangibles contributed by people who interrelate with the company, such as professional and experience skills (Cañibano et al., 2002; Ugalde, 2011), which includes the dynamics of an intelligent organization, in a changing competitive environment, creativity and capacity for innovation (Barret, 2012). It is also based on the abilities of employees to generate value to the organization (Khalique and Hassan, 2014), develop potentials that allow people to have a better performance in their jobs, this through more information, education, or simply the permanence over time in said space (Erickson and Rothberg, 2012). By increasing the levels of knowledge, skills, values, and social assets, the collaborator is directed to a state of satisfaction that will eventually be reflected in the performance of the company (Kalkan, Bozkurt and Arman, 2014).

Due to the growing importance of intellectual capital, a fundamental change in the way we think of organizations is required (Brennan and Connel, 2000), which increasingly seek the way or the way to become learning organizations, attentive to the fact that successful companies will be those that provide value to knowledge and have a strategy to carry out systematic management of it (Carlucci, Marr, and Schiuma, 2004), and having as purpose the effective use of all types of knowledge for all types of economic activity (Solleiro, 2004). Currently, knowledge is one more element that is included in the creation process that gives value to companies, being those that have the most intellectual resources, those that best discern how to explore, leverage, combine and configure resources and capacities (Santos, Figueroa and Fernández, 2011).

For its part, decision-making is the process to identify and select a course of action to solve a specific problem. In decision-making, problems are dealt with, and a problem arises when the real state of affairs does not adjust to the desired state (Stoner, Freeman, & Gilbert, 1996). On the other hand, A decision is the conclusion of a process of analysis by the person who decides (RHEAULT, 1995). The elements that make up a decision problem, any decision problem, regardless of the type of

organization or hierarchical level in which it is presented, has the following characteristics: a) There is a person responsible for making decisions; this person has his own objectives; b) There is the context of the problem, defined by a certain set of states of nature; c) It has a set of different feasible courses of action, of which the person who decides will choose the most appropriate one; c) There is a set of consequences that result from the combination of the different courses of action available and of the occurrence of one or several natural states; d) There is a certain degree of uncertainty related to the act of choosing the most convenient alternative; that is, in most cases, the person who decides has an accurate notion about what the results may be associated with their chosen course of action. Therefore, the decision-maker must follow, to varying degrees, this process, and its lack of it determines the quality of the decision made.

### III. METHOD

The research developed is quantitative, not experimental, and with a transactional design quantitative social research is based on the explanatory paradigm, this paradigm uses quantifiable information to describe or try to explain the phenomena it studies, these phenomena are already existing situations, in reality, they have not been provoked by the researcher, so we can say also that it is a non-experimental investigation. Likewise, we will do the data collection in a single moment of time, being then a transversal investigation. The measuring instrument was a questionnaire consisting of 40 items using the Likert scale and evaluated 43 companies in relation to the practices, processes, use, and organizational features to manage decisions through which the form was determined how companies control and manage intellectual capital, is the most important elements that make up this concept, the human capital, the organizational, intellectual and performance of the organization. The reliability of the measurement instrument was determined through Cronbach's alpha, yielding a result of 0.946, for which reason the instrument and its results were considered reliable.

### IV. RESULTS

Below are the main results obtained from the application of the measurement instrument to companies that offer professional services, during the period 2019-1as regards the intellectual capital and the administration thereof with respect to its decision-making processes.

The educational level of workers plays a disadvantage in terms of the search for competitiveness because human resources do not have the necessary knowledge to make decisions and affect their level of proactivity; only 10% have professional training, while the 39% baccalaureate

level and 51% with basic training. It is important to know what characterizes the leadership used in the management of the company, stating that there is the participation of all company members, with the leader having the final say in decision-making this by 60%, while 25% said that the members of the organization seek compliance with the rules and they make sure that everything they do is as correct as possible. This reflects that in the sample studied, participatory leadership has a great impact.

It was pointed out that currently the leadership in these organizations is led by 68% by managers or administrators with professional studies, who oscillate in administrative careers or related to the activity of the company. Among those who stand out are business managers, civil engineers, accountants, and lawyers.

Regarding what is understood by intellectual capital, we tried to know how familiar they were with the term, through the item that questioned what do you mean by intellectual capital. Obtaining that 46% understand the intellectual capital as "the set of knowledge formed by the knowledge and skills of employees, values, business culture, organizational infrastructure, patents and everything that is in the workplace" concept that evidences an approach to the theoretical thought of Edvinsson and Malone who in their appreciation understand the relations with clients and partners, the innovative efforts, the infrastructure of the company and the knowledge and expertise of the members of the organization.

Also, it has become clear or 84.78% of the SMEs of the local concern sample n to enhance individual skills, knowledge, skills, and experience of employees and managers of the company.

77.54% of these organizations affirm that their human talent applies in an optimal way to the knowledge acquired in the training, in the same way, 81.88% assure that there is active participation in the training programs offered within the entity. A 91.30% expresses that human talent uses both positive and negative experiences as a source of learning and organizational growth, additionally, 51.45% indicates that the creation of discussion meetings is promoted so that people learn and have certainty at the time of making decisions in their areas of work.

## V. CONCLUSION

The intangible assets of an organization play a very important role in the generation of economic value because they represent a decisive factor for the sustainable development of organizations and the creation of competitive advantages. A reality for companies that provide professional services is that they are immersed in a constant competition of skills,

[2] Brennan, N. & Connel, B., Intellectual capital: current issues and policy implications. *Journal of intellectual capital*, (1) (2000) 206-240.

[3] Cañibano, L., Sánchez P., García M. y Chaminade C. (2002). *Directrices para la gestión y difusión de información*

which generates demands that come from an increasingly specialized market, regardless of the origin of their capital, the need to have management strategies that allow the identification, production, transmission, and accumulation of all that knowledge that strives for the optimization of internal processes and procedures. In this sense, intellectual capital is presented to society as the capabilities that companies exhibit in the generation of financial benefits, based on intangible assets in their human, procedural and relational dimensions.

Given such evidence, it can be concluded that the value of organizations today, is interpreted with reference to the generation of useful and relevant knowledge through the human resources belonging to it; by structuring processes, procedures, and policies; and for those of links with external agents. Based on the results of the applied instrument, there is a high degree of sensitivity to this issue, based on the fact that within the SMEs of Mexicali, it is considered an aspect of special importance to promoting entrepreneurship and entrepreneurship. among the employees, the use of positive and negative experiences as a source of learning and the academic training of their employees as a form of organizational growth and practices prone to intellectual capital in its human dimension. Intellectual capital has acquired a significant role in the economy; therefore, the understanding of its definition and classification has become essential. However, the term is complex, and even with the extensive literature on the subject, there is no unanimity around a definition that allows clarifying this concept. Several authors agree that the intellectual capital is the knowledge structure of the company that adds the possession of knowledge, skills, abilities, and experiences of the employees, the organizational technology, the relations with the clients, and all those intangible assets that allow the organization acquires a competitive advantage in the market.

Intellectual capital is considered an indispensable factor of organizational differentiation, which comprises a series of elements that decisively influence business performance since it constitutes the central axis of competitive advantage. To this end, the proposed synthetic report is presented as a tool that allows visualizing the economic reality with respect to intangible assets and their contribution to the results of the organization.

## VI. REFERENCES

[1] Barrett, B., The Viability and Movement of Intellectual Capital in Learning Organization. In *Proceedings of the 4th European Conference on Intellectual Capital*, 60 (2012).

sobre intangibles: informe de capital intelectual, Fundación Airtel Móvil, Madrid., (2002).

[4] Carlucci, D., Marr, B., & Schiuma, G., The knowledge value chain: how intellectual capital impacts on business

- performance, *Int. J. Technology Management*, (27) (2004) 575-590.
- [5] Demirbas, D., Hussain, J. G., &Matlay, H., Owner-managers' perceptions of barriers to innovation: empirical evidence from Turkish SMEs. *Journal of Small Business and Enterprise Development*, 18(4) (2011) 764-780.
- [6] Dovey, K. & Mooney, G., The social dynamics of generating and leveraging intellectual capital for innovation. In *Proceedings of the 2nd European Conference on Intellectual Capital: ISCTE Lisbon University Institute Lisbon, Portugal*, (2010) 225-231.
- [7] Erickson, G. S. y Rothberg, H. N., Variation in Intellectual Capital Strategies Across Industries. In *Proceedings of the 4th European Conference on Intellectual Capital*, 180.AcademicConferencesLimited., (2010).
- [8] Fan, I. Y., & Lee, R. W., Design of a weighted and informed NK model for intellectual capital-based innovation planning. *ExpertSystemswithApplications*, 39(10) (2012) 9222-9229.
- [9] García de León, C. S., El capital intelectual y la competitividad empresarial. *Hospitalidad-ESDAI*, (2007) 7-24
- [10] Kalkan, A., Bozkurt, Ö. Ç. &Arman, M., The Impacts of Intellectual Capital, Innovation and Organizational Strategy on Firm Performance. *Procedia.-Social and behavioral sciences*, (150) (2014) 700-707
- [11] Khalique, M. & Hassan, I. A., Intellectual Capital in SMEs Operating in Boutique Sector in Kuching, Malaysia. *IUP Journal of Management Research*, (13) (2014) 17-28.
- [12] Lenciu, N. M., A longitudinal analysis of intellectual capital. *Annals of theUniversity of Oradea, EconomicScience Series*, (1) (2012) 938-944.
- [13] Pomar, S., Rangel, J. A., & Franco, R. E., La influencia de las barreras a la innovación que limitan la competitividad y el crecimiento de las pymes manufactureras. *Administración y organizaciones*, 33 (2014) 33-57
- [14] Santos, R. H., Figueroa D. P. y Fernández, J. C. M., La influencia del capital intelectual en la capacidad de innovación de las empresas del sector de automoción de la Eurorregión Galicia Norte de Portugal. *Servizo de Publicacións da Universida de Vigo*, (2011) 190.
- [15] Solleiro, J. L., & Castañón, R., Competitividad y sistemas de innovación: los retos para la inserción de México en el contexto global. *Temas de Iberoamérica, globalización, ciencia y tecnología*, (20) (2004) 165- 197.
- [16] Stoner, J; Freeman, E; Gilbert, D. *Administración*. 6ta Edición. México DF: Editorial. Prentice Hall Hispanoamericana., (1996).
- [17] Ugalde, B. N., Capital intelectual e innovación: una sinergia necesaria. *Revista de Ciencias Económicas*, (29) (2011) 463-474