# RELEVANCE OF INTELLECTUAL CAPITAL IN THE MANAGERIAL CAPABILITIES OF COMPANIES

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***Abstract***

*The main objective of this text is to know the perception that managers of micro, small and medium-sized enterprises (SMEs) in the city of Monteria have about the strategic management of intellectual capital within the companies. Therefore, this study deals with intellectual capital and its relationship with the capabilities of managers. The productivity, competitiveness and sustainability of modern companies depend largely on the capabilities developed by their managers and leaders; with the support of the skills and talent of the human capital that constitutes the fundamental axis for all organizational and business development. Considering the methodological approach of the research, it is of a quantitative nature of descriptive type, using the deductive method which consists fundamentally in characterizing a phenomenon or situation from a holistic perspective and arriving to indicate particular features, which allow to identify and differentiate certain phenomena, using systematic criteria that demonstrate its structure or behavior.*

*The documentary technique used is the survey, applied with an instrument such as a questionnaire whose objective in our case is to analyze the way in which the company manages intellectual capital, based on three dimensions: human capital, structural capital and relational capital, which in turn present eight indicators each. The population unit of analysis or object of study were micro, small and medium-sized companies in the city of Monteria. The sample consisted of 102 companies, including micro, small and medium-sized companies with the interest of applying a recognized, validated and already applied instrument in different contexts to measure intellectual capital, which was carried out by students of the business administration program of the Universidad del Sinú. It can be concluded that the SMEs in the city of Monteria, present a low intensity in the dimensions of structural capital and human capital that are given in terms of importance within the business management. The relational capital presents strengths in their customer loyalty and commercial communication strategies.*

***Keywords:*** *Intellectual capital, management skills, knowledge management, SMEs in Monteria*

## INTRODUCTION

The capabilities of managers drive the destinies of thousands of businesses around the world. It is notorious that behind the accumulation of events and business events, everything begins to weave from habits, virtues, values, attitudes, intelligence and experiences that then translate into executive and operational skills and competencies which are finally systematized in the Intellectual Capital represented in the set of intangible assets that a company has and the ability to add value to the activities it performs, allowing to improve its performance in the market and in society, which is necessary for the success of organizations.

Knowledge management and management implies its administration; therefore, it needs to be planned, organized, directed and evaluated; it is a process whose stages or cycles must carry out the following actions: research, identify, acquire, adapt, create or convert, classify, distribute, share, transfer and evaluate. Knowledge management also involves change management, strategic management, and

service management for a timely management of intellectual capital. Bueno Campos (2000) defines knowledge management as "the function that plans, coordinates and controls the flows of knowledge produced in the company in relation to its activities and environment, in order to create essential competencies", I.E., basic competencies such as personal, technological and organizational competencies.

The study of knowledge and learning has presented through many theories, an evolution in time where the contributions have been of great contribution from multidisciplinary perspectives, such as, among others, the fields of Philosophy, Psychology, Pedagogy, and Neurosciences. In ancient Greece, two currents begin to be distinguished: the rationalist-nativist approach with Plato (he pointed out the origin of knowledge from innate ideas in the human mind) and the empiricist-associationist approach with Aristotle (experience is the main source of knowledge, especially sensory experience). After the Middle Ages, the nativist approach spread with Descartes who proposed that the mind originated two types of derived and innate ideas. While the empiricist approach had its greatest deployment between the sixteenth and nineteenth centuries, with the associationist current, among which stand out Hobbes, Locke, Berkeley, Hume, Hartley, James Mill, John Stuart Mill and Brown; who mainly held the possibility of knowledge from reflections developed on different experiences; from here the authors come to propose different principles of association.

In the 21st century, knowledge is the main production resource for companies, i.e. it is the main protagonist in the development of a company. Land, capital and labor resources do not disappear, but they become "sharing actors" in this new productivity and competitiveness play for organizations. "Instead of capitalists and proletarians, the classes of post-capitalist society are knowledge workers and service workers" (Drucker, 1994). The author also argues that value is now created through productivity and innovation, both applications of knowledge to work.

Knowledge can be associated with various sources, such as learning, reason, perception, memory, skills, intelligences, among others. From a business organizational perspective it is associated with knowledge management, which is studied as one of the disciplines of management sciences; it is associated with intellectual capital, intelligent organizations, change management, service management; and relatively new disciplines such as neuro-management, liquid organizations and happy organizations.

Knowledge is the basic ingredient of intellectual capital, since it is the result of the application of human intelligence and experience in problem solving and decision making. In turn, intellectual capital is the set of knowledge, skills, experiences, relationships and other intangible resources that an organization possesses and that allow it to create value and obtain competitive advantages in the market.

The components of intellectual capital can be measured, Malhotra (2000), (Edvinsson & Malone, 1998), (Alonso, 2013), (Marín, 2005). Based on this premise, a quantitative research was conducted with the interest of applying a recognized, validated and already applied instrument in different contexts in order to measure intellectual capital in the city of Monteria.

Organizational knowledge is not reduced to the individual knowledge contributed by each talent in the organization but acquires a superlative meaning when this individual knowledge is coupled with the systemic exercise and the synergic production of the organization's strategic management. This global knowledge acquires social value inside and outside the company. "The value of organizations increasingly depends on the use and distribution of knowledge" (Beltramino & Conci, 2013).

Intellectual capital is the possession of knowledge, applied experience, organizational technology, customer relationships and professional skills that give a company a competitive advantage in the marketplace (Edvinsson & Malone, 1998).

The following are several definitions of intellectual capital from the most prominent authors in the field.

**Table 1. Definitions of intellectual capital**

| AUTHOR | DEFINITION |
|---|---|
| **Brooking (1997: 25)** | "With the term intellectual capital we refer to the combination of intangible assets that makes the company function." |
| **Bradley (1997)** | Intellectual capital is the ability to transform knowledge and intangible assets into resources that create wealth, both in companies and in countries. |

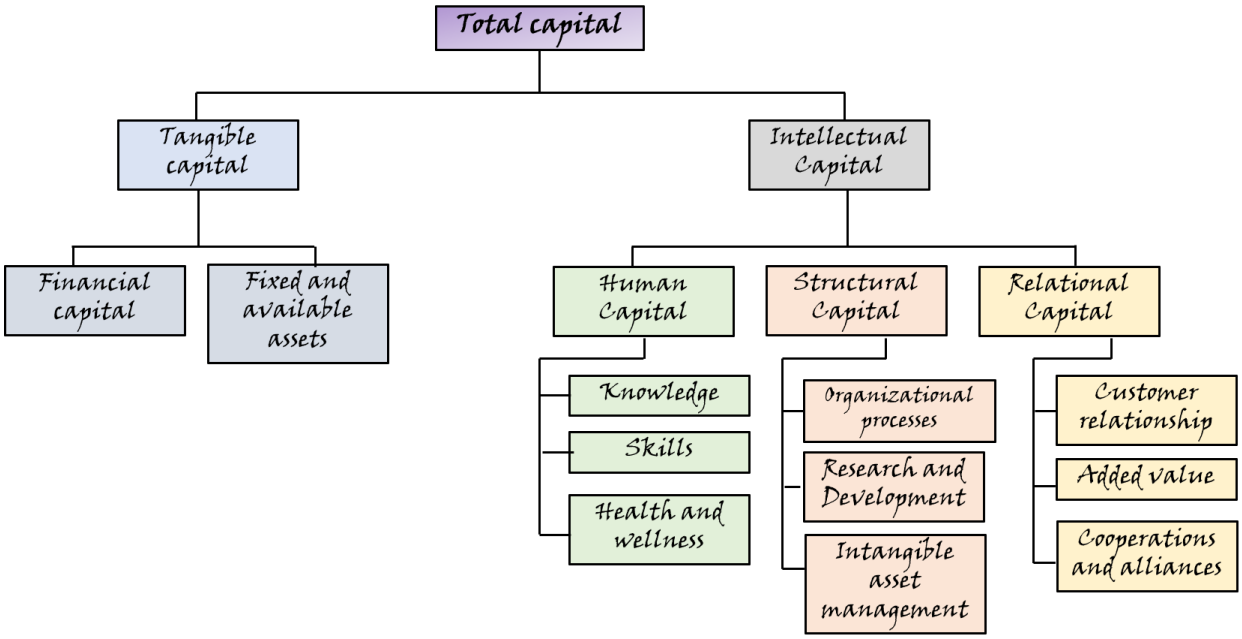
| | |
|---|---|
| **Stewart (1998)** | Intellectual capital is everything that cannot be touched but that can make a profit for the company. |
| **Edvinsson y Malone (1999)** | The possession of knowledge, applied experience, organizational technology, customer relationships and professional skills that give the company a competitive advantage in the marketplace. |
| **Sveiby (2000)** | The value of intellectual capital is the difference between the market value of the company and its book value. |
| **Petty y Guthrie (2000)** | The concept of intellectual capital is different from that of intangible assets. |
| **Roos et al (2001)** | It is the sum of the knowledge of its members and the practical interpretation of that knowledge. |

**Source: Sánchez et al (2007)**

As can be seen, the definition of intellectual capital may differ slightly from author to author, but they all seek to highlight the intangible nature of intellectual capital and its ability to add value to the company. Most authors try to imply that intellectual capital is something that cannot be touched but that is somewhere in the company, adding value to the activities it performs and allowing it to generate a competitive advantage in the market. Intellectual Capital encompasses the set of intangible assets that a company possesses and that add value to the activities it performs, which will allow it to generate a competitive market advantage. Martinez (2013).

Although it is true that there is no unanimous concept universally accepted by scholars of the subject in terms of concepts and dimensions, there is consensus that intellectual capital is something immaterial that generates value for organizations, and also for customers and society. Its most recognized dimensions are identified in the following figure.

**Figure 1. Intellectual capital map**




Source: own elaboration

Human capital is considered one of the most important assets of an organization, since its value does not deplete over time, but can increase as workers acquire new knowledge and skills. In addition, human capital is a resource that is difficult for competitors to imitate and replicate, which makes it a competitive advantage for the organization. To manage human capital effectively, companies must develop policies and strategies to attract, retain and develop the talent of their workers. This may include offering training and education programs, career and professional development plans, incentives

and benefits, and a work environment that fosters skills, creativity, innovation and collaboration among workers.

Next, for Gary Becker (1964), human capital refers to the education, training and experience that individuals possess and that can be used to increase their productivity and their capacity to generate income. Likewise Theodore Schultz (1971), for Schultz, human capital refers to the set of skills, knowledge and competencies acquired by workers through education, training and experience, and which can be used to improve productivity and business performance.

In modern companies, the social welfare of employees is becoming increasingly important, and occupational health and safety is emerging as a discipline that is continually gaining importance.

Structural capital is another dimension that has been generalized among different authors. Structural capital can be defined as the knowledge that the company has been able to internalize over time and that remains in the organization, whether in its structure, processes or culture, even when employees leave the company (Bontis et al 2000). Organizational learning capacity, organizational culture or working methods, and historical memory, whose valuable contribution helps to build status, recognition and positioning, are part of its structural capital.

Edvinsson defines structural capital as "the knowledge and intangible assets that the organization possesses, including systems, databases, patents and trademarks, and processes and procedures". Tomás Bañegil Palacios (1997), Bañegil Palacios defines structural capital as "the sum of the resources and intangible assets that the organization possesses and that allow it to create value and obtain a competitive advantage in the market".

Relational capital is the knowledge found in the company's relationships with its stakeholders (Bontis, 1998, 1999). This relationship will have a direct impact on the company, for better or worse. The company must ensure that its relations with its stakeholders are as favorable as possible, since this is the way to increase its value. The negotiation skills developed by the organization not only with its customers, but also with suppliers, partners, competitors, creditors, etc., are essential for its sustainability and competitiveness. Likewise, the ability to manage business cooperation networks will mean a better positioning for the company.

In their book "Intellectual Capital", the authors describe relational capital as part of the company's structural capital, which includes both external and internal relationships. According to them, relational capital refers to the firm's ability to create and maintain relationships with customers, suppliers, competitors, financial institutions, and other market players. Edvinsson and Malone (1997).

## 1. INTELLECTUAL CAPITAL MEASUREMENT MODELS

There are several proposals for intellectual capital measurement models, which present the organization and integration of intangible assets in organizations. The purpose is to classify them in such a way that they can be understood in a less complex way and facilitate their measurement (Bontis, 1996).

In the first two decades of the 21st century, more and more companies have given a superlative value to the management of intangible resources, since they represent a basic input for the measurement of intellectual capital. Likewise, the intellectual capital measurement models proposed by various authors are presented as models for measuring knowledge management, in such a way that the approaches and emphases, even within the same framework, are different. Some privilege market intangibles such as intellectual property, while others focus on the internal intangible structure of organizations, González (2009).

Below are some of the existing models in the literature on the measurement of intellectual capital, referenced by (Alonso, 2013; Sarur, 2013; González, 2009):

**Table 2. Intellectual capital measurement models**

| MODEL | AUTHORS | DEFINITION |
|---|---|---|
| Balanced Business Scorecard | Kaplan y Norton (1996) | The authors of this model assert that if organizations invest in the acquisition of new capabilities, in their intellectual assets, and manage them by producing high quality products and innovative services, they will be able to sustain long-term success. |
| Navigator de Skandia | Edvinsson, 1996 | This model supports Skandia's market value scheme, where they relate several constituent elements of intellectual capital value in addition to the traditional financial value. Intellectual capital is divided into human capital and structural capital. The former is constituted by the knowledge, skills and attitudes of the organization's employees. Structural capital is made up of customer capital and organizational capital. |
| Technology Broker | Brooking, 1996 | In addition to quantitative aspects, this model also takes into account qualitative aspects such as the company's philosophy. The author raises the importance of evaluating and controlling the information related to intellectual capital. |
| Intellectual Capital Effectiveness Index (ICCEI) | Marr, 2002 | It is a questionnaire consisting of a series of questions designed to evaluate the different components of intellectual capital and its associated indicators. The purpose of this instrument is to measure the effectiveness and performance of an organization's intangible resources. |

**Source: Prepared by the authors based on Sánchez et al (2007).**

An organization based on knowledge management is an organization whose main source of knowledge is intellectual capital (Edvinsson and Malone, 1997; Nonaka and Takeuchi, 1999) cited by (Quiroga, 2010)

## 2. METHODOLOGY

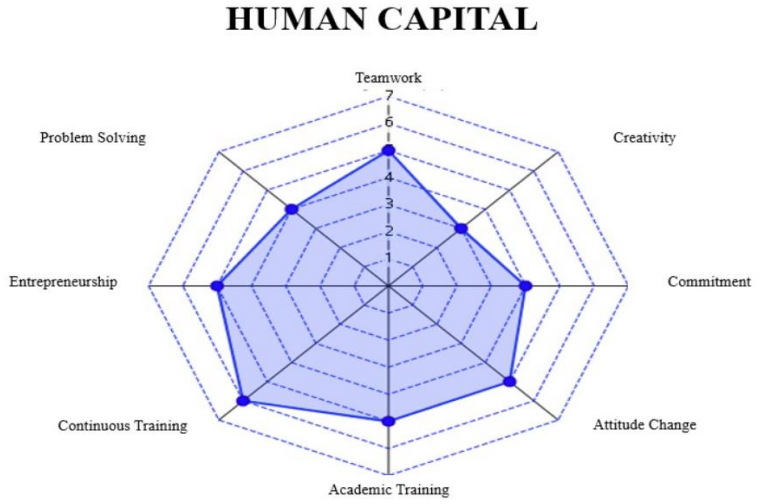
The research is of a quantitative nature of descriptive type, applying the method using the deductive method which consists fundamentally in characterizing a phenomenon or situation from a holistic perspective and arriving to indicate particular features, which allow identifying and differentiating certain phenomena, using systematic criteria that demonstrate their structure or behavior., which consists fundamentally in characterizing a phenomenon or specific situation, indicating particular features, which allow identifying and differentiating certain phenomena, using systematic criteria that allow demonstrating their structure or behavior. Canabal (2015). In such studies, facts, situations, features, characteristics of an object of study are shown, narrated, reviewed or identified and products, models, guides, etc. are designed (Bernal, 2006, p.112).

The documentary technique used is the survey, applied with an instrument such as the questionnaire whose objective in our case is to analyze the way in which the company manages the intellectual capital, based on three dimensions: human capital, structural capital and relational capital, which in turn present eight indicators each.

The population unit of analysis or object of study were micro, small and medium-sized companies in the city of Monteria. The sample consisted of 102 companies, including micro, small and medium-sized companies, applying an instrument to measure intellectual capital, which was carried out by students of the business administration program of the Universidad del Sinú.

## 3. RESULTS

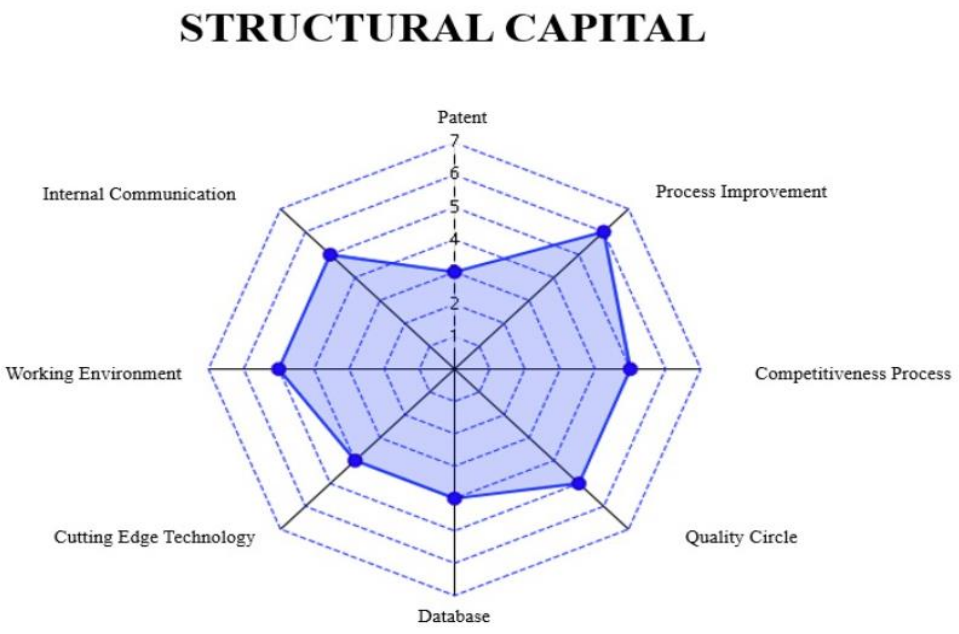
**Figure 2. Human Capital in SMEs in Monteria**




Source: own elaboration

Regarding this dimension of intellectual capital in micro, small and medium-sized companies in the city of Monteria, the best rated indicator is continuous training, referring to the training, participation in courses and periodic training carried out by the companies' collaborators. This allows inferring that this indicator goes hand in hand with a good attitude to face change, which is another of the best rated indicators. Entrepreneurship, teamwork and academic training are well valued and represent highly intensive components in the human capital of Monterrey companies. On the other hand, creativity is the least intensive and least valued indicator by companies within the human capital dimension.

**Figure 3. Structural Capital in SMEs in Monteria**



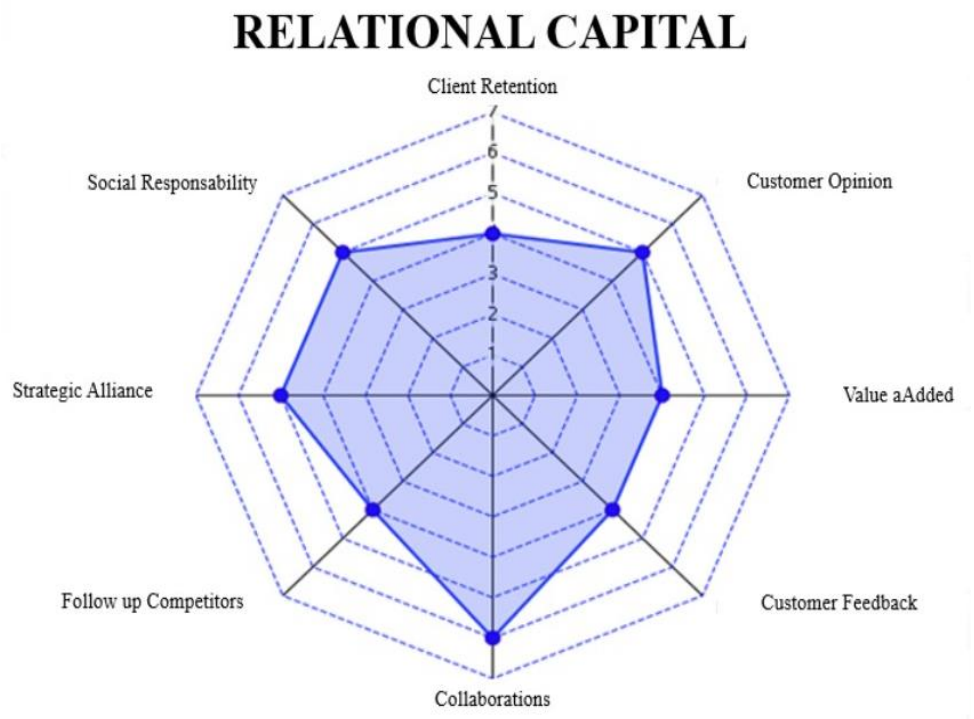

Source: own elaboration

Regarding the dimension of structural capital in micro, small and medium-sized enterprises in the city of Monteria, the most highly valued indicator is process improvement, with concern for innovation and investment in maintenance and productivity. Likewise, competitiveness and quality present a high intensity in the valuation of this dimension of intellectual capital.

Developing a good working environment and good communication is important for a positive performance of SMEs in the city of Monteria, understanding that these are indicators that help to maintain a good structural capital of the companies.

The indicator with the lowest intensity is research and development in patents, trademarks and licenses, where companies show little interest in owning patents.

**Figure 4. Relational Capital in SMEs in Monteria**




Source: own elaboration

Regarding the dimension of relational capital in micro, small and medium-sized enterprises in the city of Monteria, the most intensive indicator is business collaboration, which is linked to another indicator such as alliances between companies, which is also valued among the most positive, indicating that this strategy is used by companies to remain competitive and sustain themselves in the market. Sharing resources and capabilities among businesses in a region allows them to position themselves in the market and generate added value in order to participate in different sectors or segments of the market. Medium-intensive indicators such as customer loyalty or value added itself reflect that companies should use better strategies that can reflect greater benefits for customers, win back lost customers and allow companies to improve resales.

## CONCLUSIONS

Leaders of SMEs in Monteria must understand the importance of intellectual capital and develop strategies to manage it effectively. Knowledge management is a planned process of strategic change that must involve all SME personnel. Change cycles are occurring faster and faster, so that knowledge devaluation is more accelerated; professions depreciate knowledge in shorter time frames, which recurrently increases business entropy. Together, intellectual capital and managerial capabilities are critical to business success.

Intellectual capital can generate competitive advantages in an increasingly globalized and competitive market, as organizations need to differentiate themselves from their competitors in order to consolidate in the business. It can also help the organization to develop innovative new products and services, improve processes and optimize resources.

Well-managed intellectual capital helps SMEs save time, money and resources. Leaders who understand the importance of intellectual capital can identify inefficient processes and systems and use the

knowledge and skills of employees to improve them, and achieve significant improvements in efficiency and productivity.

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