Intellectual capital for the competitiveness of the agribusiness

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Abstract

Changes in the business environment generated product of globalization as well as economic, social and environmental problems have forced companies to seek competitive advantages that allow them to stay in the market. Intellectual capital has been gaining ground in the knowledge society and the dynamics of the global market. In this context, the management of intellectual capital becomes a strategic tool that promotes loyalty stakeholders and strengthens the image. The purpose of this paper is to analyze in what forms the intellectual capital in guasavenses agribusiness is managed and the impact that has on the competitiveness; It was carried out a descriptive investigation, cross-section through a questionnaire to a sample of agribusiness. Among the main findings we can mention the importance given to the potentiation of knowledge, however, we also found that companies do not appreciate in full extent the benefits of proper management of intellectual capital.

Management strategic, society of the knowledge, agribusinesses

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Introduction

Today, companies are more dedicated to selling knowledge than traditional products, they live in the age of knowledge and intellectual work is on the rise (Stewart, 1999). On the other hand, Joya et al. (2015) point out that knowledge today becomes one of the main sources of competitive advantages; The most important assets of the companies are no longer the tangible ones, but the intangibles, which have their origin in the knowledge, skills, values and attitudes of the members of the organization, as well as the loyalty of the clients, the relationships with suppliers and Other participants in its value chain, in addition to the use of information technology and strategic alliances, among others.

Likewise, Lopez and Grandío (2005) agree that within the intangible resources of a company, human capital is undoubtedly the most strategic resource of the company, but at the same time, the most difficult and complex to manage. For companies to achieve greater competitiveness requires a sustained increase in investment and trade opening, however, this concept is much richer than what is commonly understood and that to achieve an authentic sustainable competitiveness over time, It is necessary to implement a diversity of policies that allow the overcoming of existing obstacles to achieve it (Suñol, 2006).

Castellanos, et al. (2013) point out that it is the companies that compete and not the countries, and competitiveness is not a short- or medium-term policy objective, but the search for a sustainable condition characterized by its permanence and directed towards market in January. Therefore, the key to successful competition lies mainly in permeating the entire organization of the culture to offer something different and better than the competition.

The basic competition factors are those that directly impact customer preference and, therefore, market share (Ramírez and Cabello, 2000).

In this context, Porter (2002) states that competition determines the success or failure of companies. The competitive strategy is the search for a favorable position within an industry, the fundamental scenario where the competition takes place. Its purpose is to establish a profitable and sustainable position against the forces that govern competition in the industry.

For Moreno et al (2007), competitive ness is a tool of nations, companies and agroindustries, which is why companies in Mexico are in need of competitiveness to remain in the market. The need to be more efficient, to have better profitability and to provide a better service, has made companies look more competitive and identify strategies for better performance.

In this research, the central question is: How does the management of intellectual capital competitiveness influence the agribusiness in Guavi? To solve this question was raised as a goalAnalyze how the intellectual capital is managed in the agribusiness of Guavians and the impact has on competitiveness.

The municipality of Guasave, located in the state of Sinaloa, Mexico; Is recognized as "the agricultural heart of Mexico for having an eminently agricultural economy, however, agricultural businesses are complicated to remain in the market due to constant changes in the environment, high levels of competition for small markets, changes in The climate patterns derived from the global changes for that reason.

It becomes imperative that they implement strategies that favor their permanence and the increase of benefits that strengthens their competitive position. Intellectual capital is one of the strategic resources that can help in strategic plans so that proper management is not only advisable but necessary.

It is for this reason that the investigation of the way in which intellectual capital is managed in agribusiness opens a perspective focused on improving competitiveness which directly influences regional and organizational development. The central hypothesis raised is the following: The management of intellectual capital in the agribusiness of Guavians increases its competitiveness.

First, it includes the background, then develops strategy and competitiveness starting from the conceptualization of the strategy and the formulation of the same ending the section with the competitive strategy. To finish the theoretical framework, the evolution intellectual capital as well as its three dimensions are included briefly: human, relational and structural capital.

Background

While sometimes only conceive the world production or the world of finance as genuine wealth creators, competitive strategy is essential in creating v alue. Value is not in things (products) but in people (markets). The new logic that streamlines the current economy is not the only competition between different suppliers and reduces but affects all actors in the scene. Economic history shows that often is poverty that creates wealth, as in the case of Japan or Korea, where the comparative disadvantages did see them competitive ntajas essential; or the case of Switzerland thanks to its small but demanding market allowed the development of leading companies such as Nestle and Ciba-Geigy.

Competitiveness is "the ability to sustain and increase participation in international markets, with a parallel rise in the standard of living of the population. The only solid path to achieve this, based on increased productivity "(Porter, 1990).

Strategy and Competitiveness

A strategy is an integrated and coordinated set of commitments and actions designed to leverage core competencies and gain competitive advantage. An effectively formulated strategy directs, integrates, and distributes the resources, capabilities, and capabilities of a business to successfully address the external environment (Hitt, et al., 1999).

For Porter (1996) the essence of the formulation of a competitive strategy is to relate a company to its environment, the key aspect of the company environment is the sector or which industria1 sectors in it competes. Competition, in a broader sense, could be defined as amplified rivalry; the competition between supply and demand provokes based on differentiation, movements forgetting that competitiveness is the essential factor of development.

The competitive advantage comes basically from the value that a company manages to create for its customers, something that is called a value chain. It is born of many discrete activities that are executed when designing. manufacturing, and marketing, delivering and supporting its product (Porter, 2002). Therefore, proposes the it five competitive forces.

For Porter (1996) a competitive strategy comprises an offensive or defensive action in order to create a defensible position against the five competitive forces. In general this includes several possible approaches:

- Positioning of the company in such a way that its capacities provide the best defensive position in function of the existing competitive forces;
- Influence the balance of forces through strategic movements thus improving the relative position of the company; or
- Anticipate changes in the factors that underpin the forces and respond to those changes quickly, taking advantage of the change to choose a strategy appropriate to the new competitive equilibrium before the competitors recognize it.

The five factors determine the profitability of the industry because they influence the prices, costs, and investment that companies must make, that is, the elements of performance (Porter, 2002).

To address the five competitive forces, there are three generic strategies of potential success to perform better than other firms (Porter, 1996):

- 1. Cost Leadership
- 2. Differentiation
- 3. Focus or high segmentation

In order achieve strate gic to competitiveness and achieve above-average returns, a company analyzes its external environment, identifies opportunities in that environment, determines which of its internal resources and capacities are core competencies, and selects an appropriate strategy to implement it (Hitt, Et al 1999).

Competitive strategy involves positioning a company to maximize the value of the capabilities that distinguish it from its competitors. It follows that a central aspect of the formulation of the strategy is the perceptive analysis of the consumer.

However, the success of its implementation requires different resources and skills for effective implementation, constant dedication to one of the strategies as the primary goal, is generally necessary to achieve success (Porter, 1996).

Intellectual capital

It is the set of knowledge that owns the employees of a company and that give them the necessary tools to make it more competitive, it is an intangible asset. Intellectual capital is intellectual material, knowledge, information, intellectual property, experience, which is often used to create wealth (Stewart 1998).

In this sense Chiavenato (2011) states that one of the main aspects of the current management of human resources of companies is that there must be a mutual and continuous development between organizations and individuals, as it is the only way to cope To the obstacles and problems that may arise in the future and above all so that companies are up-to-date and viable.

In the analysis of several authors such as Stuart (1998), Edvinsson and Malone (1997), Viedma (2001) and other experts on the subject, Joya, et al (2015) defended the position that any definition of intellectual capital must reflect the share of knowledge, intangibles, structural and relational factors, as well as contribute to the generation of value. Likewise, these authors state that "in the presence of a new global paradigm that includes social. responsibility of organizations, several authors agree on the incorporation of a new regularity: integration, commitment and impact on the territory and society in general".

It should be noted that, in this sense, Monagas (2012) takes up the metaphor of Edvinsson and Malone (1999) 2 to explain the concept of intellectual capital, where they say that every company is like a tree (with a visible and another hidden), And for every tree to grow and fruit, it is necessary that its roots are healthy and nourished. This applied to businesses would be; that if managers only focus on financial results and ignore hidden values, the company will not stand in the long run.

Intellectual capital consists of three dimensions: human capital, relational capital, and structural capital.

Human Capital: For Chen, Zhu and Xie (2004), are the skills that every human being has, and the ability to perform an activity or work in any discipline that is. Roos et al. (2001) point out, that are the abilities that a human being has to perform a determined job that generate an income. On the other hand Bontis and Fitz-enz (2002) mention that this includes satisfaction and commitment, motivation, congruence of personal values with institutional, leadership, generation and transmission of knowledge. Lopez and Grandío (2005) point out that human capital is "the set of skills, knowledge and skills of people working in the company; Is an unquestionable source of long-term competitive advantage."

Structural Capital: It is composed of the base of human capital as the organizational philosophy, mission, vision, values, manuals and procedural positions, culture and infrastructure systems. For Stewart (1998) the knowledge is property of the company since it is she who uses it to meet the demands of the market through the skills of the collaborators. Seetharanam et al. (2002) establish that it is the ability of a person to develop potential activities such as trademarks, licenses, patents, etc.

Relational Capital: consists of relationships with customers and suppliers (Sveiby, 2001), the most important part of this capital is the one that has to do with the users of the services that are going to generate the revenue to the company, Is to whom the organization directs its efforts so it becomes essential to take care of this relationship. Sveiby (1997) points out that it is the relationships with the actual and potential clients that represent the company.

Methodology

The present work was done under the quantitative methodology, it is considered a statistical study since it deals with processes and relations between variables that are inferred from the analysis of the information collected (Namakforoosh, 2010). It is descriptive or transverse or transectional; Information was collected seeking to answer the research problem; is non-experimental since only what happens in relation to intellectual capital in agricultural organizations is reported without manipulating the variables.

The study population is the agribusiness located in the municipality of Guasave, of which it was possible to locate 68, when comparing with the inclusion criteria: enrolled in the Ministry of Finance, formal operation and with at least three workers left only 53 agribusiness. By applying the statistical formula for finite populations with a 95% confidence level and a margin of error of 5%, a sample of 47 was obtained when the instrument applied the response rate of 86% for which the data presented Correspond to 40 businesses dedicated to the production and industrialization agricultural products, purchase, sale, inputs or services to farmers (they are not considered companies that are dedicated to the sale of fuels because they are not directly related to agriculture).

A survey was designed in order to know the state of intellectual capital management and the level of competitiveness perceived by companies, two variables were considered from the literary review shown in the previous sections. In addition, information is requested to obtain the profile of the respondent, the age of the company and the number of strong competitors.

The instrument was applied to the middle managers and managers at their convenience, starting with the ones that were more easily accessible and more available; It was taken into account that they had sufficient information to respond to the survey. The information was collected in the months of April to July 2016.

The surveys were processed using the SPSS statistical program; In order to guarantee the reliability of the instrument, Cronbach's alpha was calculated, which yielded a value of 0.963, which is considered excellent (Namakforoosh, 2010).

		Operational		
Var. Indep.	Dimensions	definition	Indicators	
			Commitment,	
			openness to	
			change, ability to	
			work in teams,	
		Skills,	creativity, critical	
		knowledge	thinking, academic	
		and skills	training, ability to	
		(López and	solve problems,	
	Human	Grandio,	entrepreneurship,	
	capital	2005)	learning	
			Organizational	
			philosophy,	
			mission, vision,	
Intellectual		It is the basis	values, manuals	
capital		for the	of posts and	
		development	procedures,	
		of human	culture,	
		capital	technological	
	Structural	(Stewart,	platforms,	
	Capital	1998)	certifications	
	•	Relationship		
		with users	Loyalty of	
		that	customers.	
		generate	relationships with	
		income for	suppliers,	
	Relational	the	competitors,	
	capital	company	strategic alliances	
	сарнаі	company	strategic attrances	

Table 1 Operationalization of independent variables. Source: Authors' compilation with information from López and Grandio (2005), Stewart (1998) and Sveybi (1997)

		Operational	
Var. D.E.P.	Dimensions	definition	Indicators
		It is the	
		location of	
		the	Competitive
		company in	position
		relation to	perceived,
		those of its	better
		sector	economic
	Competitive	(Porter,	position than
	situation	1996)	competition
			Modification
			of products
Competitiveness			and
			processes,
			greater
			participation
		Improving	in the
		profitability	market,
		through	improvement
		strategies	of financial
		that	results,
		facilitate	increase of
		permanence	portfolio,
	Organizational	(Moreno et	changes in
	Performance	al, 2007)	processes

Table 2 Operationalization of dependent variables. Source: Own elaboration with information from Porter (1996) and Moreno et al (2007)

Results

Profile of the company and the respondent Of the total companies surveyed, 37.5% are engaged in the commercialization of agricultural products, 37.5% in production and industrialization, and 25% in the provision of services. They report an average of 52.74 employees and a 41.5% growth.

Regarding the person interviewed has an average age of 36.95 with a fashion of 24, the average age in office is 7.68, 35% are women and 65% are men; 35% are single, 60% married and the rest of another civil status; 87.5% have a bachelor's degree, 5% graduate and 5% preparatory.

Intellectual Capital in Agribusiness

When asked if agribusiness seeks to boost knowledge, 60% said that they fully agree with the statement, 32.5% agree while 7.5% more or less agree.

Human capital

When analyzing the variable denominated human capital, the average averages found refer to the work in equipment with average of 4.73; Creativity and competence development with 4.55; Learning and experience with 4.53 and 4.50 respectively; Problem solving and training with 4.48; Coinciding with an average of 4.45 hiring staff with knowledge for the position and opening to change with average; Application of knowledge in practice and development of the entrepreneurial spirit with 4.43; The lowest means are placed in the realization of meetings to generate learning with 3.95.

HUMAN CAPITAL DIMENSION: DESCRIPTIVE STATISTICS					
Items	Min.	Max.	Half	Desv. Typ.	
Teamwork	3	5	4,73	, 554	
Creativity	3	5	4.55	, 677	
Competitions	3	5	4.55	, 639	
Learning	3	5	4.53	, 679	
Experience	3	5	4.50	,716	
Problem resolution	3	5	4,48	, 716	
Training	1	5	4,48	, 933	
Knowledgeable staff	2	5	4.45	, 815	
Opening to change	2	5	4.45	, 677	
Application of knowledge	2	5	4.43	, 844	
Entrepreneurial spirit	2	5	4.43	, 844	
Critical thinking	2	5	4.30	, 791	
Active participation	2	5	4.25	, 840	
Academic Fromation	1	5	4,20	1.018	
Meeting to generate learning	1	5	3.95	1,154	
Database	1	5	3.35	1.494	

Table 3 Dimension of human capital. Source: Own elaboration (MACR, 2016) with research results

In the dimension of structural capital the highest means were found in the preventive and corrective maintenance of machinery and the improvement of the climate with 4.73; Communication with 4.70; The focus on solving problems with 4.55; The pursuit of improvement in quality 4.48; The lowest averages are located in having manuals of position with 3.73 and web pages with 3.38.

Dimension of structural capital

STRUCTURAL CAPITAL: DESCRIPTIVE STATISTICS				
Variables	Min.	Max.	Half	Desv.Typ.
Maintenance	2	5	4,73	, 679
Weather	3	5	4,73	, 599
Communication	2	5	4,70	, 608
Problem solving	2	5	4.55	, 714
Quality	2	5	4,48	, 784
Organization	1	5	4,28	1.062
Mission, Vision, Values, Goals	1	5	4.23	1,121
Technology Platforms	1	5	4.23	1.074
Certifications	1	5	4.18	1,083
Technologies	1	5	4,15	1,252
Capactiation Courses	1	5	4.05	1,176
Competitiveness Approaches	1	5	3.98	1,387
Search for certifications	1	5	3.90	1,499
Manuals	1	5	3.73	1,281
Websites	1	5	3.38	1,705

Table 4 Structural dimension. Source: Own elaboration (MACR, 2016) with research results

In the dimension of relational capital, high averages were found in fair treatment of clients and suppliers with 4.78 and in the solidity of relations with suppliers 4.73; strengthening of customer portfolio and loyalty of clients and suppliers with 4.45, followed by an average of 4.43 for the strengthening of the value chain. The lowest means are appreciated in the evaluation of competitors as well as the collaborative relationships with them with 3.55.

Relational capital

RELATIONAL CAPITAL: DESCRIPTIVE STATISTICS						
Variables	Min.	Max.	Half	Desv. Typ.		
Just treat						
customers and	,	_	4.70	400		
provide,	3	5	4.78	, 480		
Solid supplier relationships	3	5	4,73	, 506		
Strengthening client portfolio	1	5	4.45	, 904		
Loyalty customers and suppliers.	3	5	4.45	, 714		
Strengthening of value chain	2	5	4.43	, 874		
Timely Suppliers	3	5	4.30	, 758		
Alliances	1	5	4,28	, 960		
Market studies	1	5	3.60	1,317		
Evaluation comp.	1	5	3.55	1,395		
Competitors collaboration	1	5	3.55	1.319		

Table 5 Dimension of relational capital. Source: Own elaboration (MACR, 2016) with research results

When reviewing the results ofcompetitiveness and organizatio na l performance, the highest average was found in the part related to the preparation of financial statements with 4.78; The preparation of financial statements under accounting standards with 4.55; However, the use of financial information for decision making has an average of 4.15; The part related to image improvement 4.45 and the increase of productivity 4.33; The recognition of the benefits derived from intangible assets has an average of 4.30 and the increase of the customer portfolio 4.78; The lowest average is in the strength of the position relative to the competition with 3.90.

Competitiveness and Organizational Performance

Competitiveness and performance: Descriptive statistics					
Variables	Min.	Max.	Half	Desv. Typ.	
Preparation of financial statements	2	5	4.78	, 620	
Application of financial reporting standards in the preparation of					
financial statements	1	5	4.55	, 932	
Image	1	5	4.45	, 959	
Increment prod.	1	5	4.33	1,095	
Intangible assets	1	5	4.30	1,159	
Portfolio increase	1	5	4,28	1.086	
Changes in processes	1	5	4.23	1,165	
Use of financial information for decision making	1	5	4,15	1,001	
Satisfied Investors	1	5	4.13	1.042	
Improvement in products or services	1	5	4.08	1,228	
Strong position in relation to competition	1	5	3.90	1,105	

Table 6 Competitiveness and Organizational Performance. Source: Own elaboration (MACR, 2016) with research results

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Conclusions

After reviewing the results obtained, it can be seen that the main strengths of the agribusiness in Guayaquil in the management of intellectual capital are found in teamwork, the promotion of creativity, the development of competences, learning and the use of experience In the human capital dimension.

In the structural capital the maintenance of machinery. the improvement of the organizational climate and the promotion of communication; In relational capital, fair dealing with customers and suppliers, solid loyalty relationships, customer the strengthening of the customer portfolio and value chain and in the part related to competitiveness and organizatio nal performance, Related to the preparation of financial statements under accounting regulations, improvement of the image and increase of production; It is appreciated that the agribusinesses of Guavians have incorporated the management of intellectual capital with which they have not only improved their competitiveness but also influenced their image with what proves the hypothesis however, it is appreciated that the information is not properly used Decision-making.

The agribusinesses of Guasavans have an area of opportunity in terms of technologies since they do not have a web page, with job manuals that define the activities to be carried out by the collaborators or have databases that provide updated information. This can affect their permanence in the markets or their competitive situation, which they indicate not very solid.

It is necessary that agribusinesses strengthen their position in the market and adapt to changes in the environment by valuing their intellectual capital in order that it generates benefits and is susceptible of becoming a competitive advantage.

One of the limitations of the research is that the information was collected from the leaders and owners of the agricultural negotiations so it would be important to compare this information with what the collaborators, customers and suppliers say.

Likewise, it was not verified that they actually prepare financial statements under the rules established in the financial reporting standards.

Referencias

Bontis, N., Fitz-enz, J., (2002), "Intellectual Capital ROI: A causal map of human capital antecedents and consequents", Journal of Intellectual Capital. Vol. 3.

Chen, J., Zhu, Z. y Xie, H. Y (2004) "Measuring Intellectual Capital: a New Model and Empirical Study". Journal of intellectual capital, Vol 5.

Chiavenato, I. (2011). Administración de recursos humanos. Mc Graw Hill. México.

Edvinsson L. y Malone M (1997). El capital intelectual, al darse cuenta de su empresa verdadero valor mediante la búsqueda de su capacidad intelectual oculto, de Haper Collins Publisher, Inc.1ªed.

Hitt, M., Ireland, R. y Hoskinsson, R. (1999) Administración Estratégica "Conceptos, Competitividad y Globalización". International Thomson Editores, México, D.F.

Joya, R.; Gámez, L.; Paniagua, M. y Gálvez, A. (2015). Medición del capital intelectual en empresas mexicanas. Retos. Vol. 9. No. 1. Cuba,

López, A. y Grandio, A. (2005). Capital humano como fuente de ventajas competitivas. Algunas reflexiones y experiencias. Gesbiblo. España.

Monagas, M. (2012). El capital intelectual y la gestión del conocimiento en Revista de Ingeniería Industrial. Vol. 33. No. 2. La Habana, Cuba.

Moreno, I., Calderón, L. y Guzmán, J. (2007) Modelos de Competitividad de la Agroindustria en México. Una compilación de "La Competitividad y Calidad de las Empresas en Latinoamérica". México.

Namakforoosh, M. (2010). Metodología de la Investigación. Segunda edición. México: Limusa.

Porter, M. (2002), Ventaja Competitiva "Creación y Sostenimiento de un Desempeño Superior". CECSA, México.

Porter, M. (1996), Estrategias competitivas "Técnicas para el análisis de los sectores industriales y la competencia". CECSA, México. Porter, M. (1990). The competitive advantage of nations. The Free Press.

Ramírez, D. y Cabello. M (2000). Empresas competitivas "Una estrategia de cambio para el éxito". McGrawHill. México.

Roos, J., Roos, G., Dragonetti, N. y Edvinsson, L. (2001). Capital Intelectual. Buenos Aires: Paidós.

Seetharanam, B. (2002) "Intellectual capital accounting and reporting in the knowledge economy". Journal of intellectual capital. Vol. 3. Stewart, T. (1998). La nueva riqueza de las Organizaciones: "El Capital Intelectual". Argentina. Ediciones Granica.

Suñol, S. (2006). Aspectos teóricos de la competitividad. Redalyc Ciencia y Sociedad, Instituto Tecnológico de Santo Domingo. República Dominicana.

Sveiby. K. (2001) "A knowledge- based theory of the firm to guide and strategy formulation". Journal of intellectual capital. Vol. 2.

Viedma, J. (2001). IICBS Innovation Intellectual capital benchmarking system en Bontis, N. (Ed.): World Congress on Intellectual Capital Readings, Butterworth Heinemann,