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VALUATION OF INTELLECTUAL CAPITAL: AN EMPIRICAL ANALYSIS OF HUMAN CAPITAL IN SMEs IN ECUADOR

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ABSTRACT

Purpose: The objective of this study was to determine the valuation between intellectual capital and human capital in SMEs in Ecuador.

Theoretical framework: Recent literature has reported interesting results on the application of organizational theoretical models and the knowledge society. However, there is still much to investigate and learn about organizational models and cultures in SMEs in Ecuador. (Saavedra & Saavedra, 2012)

Design/methodology/approach: A cross-sectional design with a qualitative approach was implemented. An empirical study is carried out where the intellectual capital of the SMEs is evaluated through human capital as a dependent variable, and three variables as independent: Values and attitudes, skills and abilities, through the application of a structured questionnaire through an interview with 378 businessmen. of the manufacturing, commerce and services sector of Ambato and Riobamba in Ecuador. It began with the descriptive analysis of the composition of the sample and the statistical results are evidenced through an analysis of means.

Findings: The results showed that according to the composition of the sample by company size, microenterprises have between 1 and 9 employees, small companies manage between 10 and 49 workers and medium-sized companies between 50 and 199 employees, being representative, such as drivers. of the economy in Ecuador. One problem is the relevant presence of microenterprises, which generally maintain low-quality jobs and minimum wages.

Research, Practical & Social implications: We suggest valuing human capital in SMEs . This research establishes a sense of belonging and commitment, which allows you to socialize with the client and develop your creativity. Likewise, the feeling of belonging establishes that the worker feels an integral part of the company, trusting the administrators, having freedom and autonomy to plan their work and avoiding high turnover, ensuring their permanence in the company. This value allows SMEs to develop and workers to increase their productivity by working in an appropriate environment.

Originality/value: The results showed that the SMEs businessman considers it relevant to hire an experienced worker who maintains personal development by

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involving his family, the company carries out social, cultural activities and specialized training that contributes to improving the development of the company, allowing the hiring of personnel with a graduate degree or specialization. technical, offering training with specific skills for the development of the company.

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AVALIAÇÃO DO CAPITAL INTELECTUAL: UMA ANÁLISE EMPÍRICA DO CAPITAL HUMANO NAS PMES DO EQUADOR

RESUMO

Objetivo: O objetivo deste estudo foi determinar a valoração entre capital intelectual e capital humano nas PMEs do Equador.

Enquadramento teórico: A literatura recente tem reportado resultados interessantes sobre a aplicação de modelos teóricos organizacionais e a sociedade do conhecimento. No entanto, ainda há muito que investigar e aprender sobre modelos e culturas organizacionais nas PME no Equador. (Saavedra e Saavedra, 2012).

Desenho/Metodologia/Abordagem: Foi implementado um desenho transversal com abordagem qualitativa. É realizado um estudo empírico onde o capital intelectual das PME é avaliado através do capital humano como variável dependente, e três variáveis como independentes: Valores e atitudes, competências e habilidades, através da aplicação de um questionário estruturado através de entrevista com 378 empresários . do setor manufatureiro, comercial e de serviços de Ambato e Riobamba no Equador. Iniciou-se com a análise descritiva da composição da amostra e os resultados estatísticos são evidenciados através de uma análise de médias.

Resultados: Os resultados mostraram que de acordo com a composição da amostra por porte de empresa, as microempresas possuem entre 1 e 9 funcionários, as pequenas empresas gerenciam entre 10 e 49 trabalhadores e as médias empresas entre 50 e 199 funcionários, sendo representativas, como os motoristas . da economia do Equador. Um problema é a presença relevante de microempresas, que geralmente mantêm empregos e salários mínimos de baixa qualidade.

Implicações de investigação, Práticas e Sociais: Sugerimos a valorização do capital humano nas PME. Esta investigação estabelece um sentimento de pertença e compromisso, que lhe permite conviver com o cliente e desenvolver a sua criatividade. Da mesma forma, o sentimento de pertencimento estabelece que o trabalhador se sinta parte integrante da empresa, confiando nos administradores, tendo liberdade e autonomia para planejar seu trabalho e evitando alta rotatividade, garantindo sua permanência na empresa. Este valor permite que as PME se desenvolvam e que os trabalhadores aumentem a sua produtividade trabalhando num ambiente adequado.

Originalidade/Valor: Os resultados demonstraram que o empresário das PME considera relevante contratar um trabalhador experiente que mantenha o desenvolvimento pessoal através do envolvimento da sua família, a empresa realiza atividades sociais, culturais e formação especializada que contribui para melhorar o desenvolvimento da empresa, permitindo contratação de pessoal com pós-graduação ou especialização. técnico, oferecendo treinamentos com competências específicas para o desenvolvimento da empresa.

Palavras-chave: Sociedade do Conhecimento, Capital Intelectual, Análise do Capital Humano, Gestão e Negócios, PMES.

VALORACIÓN DEL CAPITAL INTELECTUAL: UN ANÁLISIS EMPÍRICO DEL CAPITAL HUMANO EN LAS PYMES DEL ECUADOR

RESUMEN

Propósito: El objetivo de este estudio fue determinar la valoración entre el capital intelectual y el capital humano en las PYMES del Ecuador.

Marco teórico: La literatura reciente ha reportado resultados interesantes sobre la aplicación de modelos teóricos organizacionales y la sociedad del conocimiento. Sin embargo, aún queda mucho por investigar y aprender sobre los modelos y culturas organizacionales en las PYMES del Ecuador. (Saavedra y Saavedra, 2012)

Diseño/Metodología/Enfoque: Se implementó un diseño transversal con enfoque cualitativo. Se realiza un estudio empírico donde se evalúa el capital intelectual de las PYMES a través del capital humano como variable dependiente, y tres variables como independientes: Valores y actitudes, habilidades y destrezas, mediante la aplicación de un cuestionario estructurado a través de una entrevista a 378 empresarios. . del sector manufacturero, comercio y servicios de Ambato y Riobamba en Ecuador. Se inició con el análisis descriptivo de la composición de la muestra y los resultados estadísticos se evidencian a través de un análisis de medias.

Hallazgos: Los resultados mostraron que según la composición de la muestra por tamaño de empresa, las microempresas tienen entre 1 y 9 empleados, las pequeñas empresas manejan entre 10 y 49 trabajadores y las

medianas empresas entre 50 y 199 empleados, siendo representativas, como los conductores. . de la economía en el Ecuador. Un problema es la presencia relevante de microempresas, que generalmente mantienen empleos y salarios mínimos de baja calidad.
Implicaciones de investigación, Prácticas y Sociales: sugerimos valorar el capital humano en las PYMES. Esta investigación establece un sentido de pertenencia y compromiso, que le permite socializar con el cliente y desarrollar su creatividad. Asimismo, el sentimiento de pertenencia establece que el trabajador se sienta parte integral de la empresa, confiando en los administradores, teniendo libertad y autonomía para planificar su trabajo y evitando la alta rotación, asegurando su permanencia en la empresa. Este valor permite a las PYMES desarrollarse y a los trabajadores aumentar su productividad trabajando en un entorno adecuado.
Originalidad/Valor: Los resultados arrojaron que el empresario PYME considera relevante contratar a un trabajador con experiencia que mantenga su desarrollo personal involucrando a su familia, la empresa realiza actividades sociales, culturales y capacitación especializada que contribuya a mejorar el desarrollo de la empresa, permitiendo la contratación de personal con título de posgrado o especialización. técnico, ofreciendo formación con habilidades específicas para el desarrollo de la empresa.

Palabras clave: Sociedad del Conocimiento, Capital Intelectual, Análisis del Capital Humano, Gestión y Negocios, PYMES.

INTRODUCTION

The knowledge society currently prevails worldwide due to the globalization of markets and the development of information and communication technology. The evolution of the information society towards the knowledge society places intangible resources based on knowledge through intellectual capital as main sources for the creation of sustainable competitive advantages in companies.[1]

The intellectual capital[2]It is the result of knowledge through human capital, relational capital and structural capital, with intellectual capital being a valuable tool that allows us to compete and survive in globalized markets, which by itself does not constitute a competitive advantage that leads to business success, it serves to the achievement of: Innovation, technological capacity and creation of added value or increase in wealth and is based on resources such as: Knowledge, information, processes and structure.

Human capital[3]As a component of intellectual capital, it refers to the knowledge that people or groups in the company possess and that are of value to the organization. It is also the organization's ability to learn and generate knowledge or the ability to distribute it to those who

[1]Eduardo Bueno; Pilar Rodriguez; Maria Paz Salmador; Knowledge Management and Intellectual Capital: Analysis of experiences in Spanish companies (Zaragoza: Proceedings of the X AECA Congress, 1999), available at:https://www.mincotur.gob.es/Publicaciones/Publicacionesperiodicas/EconomiaIndustrial/RevistaEconomiaIndustrial/399/BUENO,%20LONGO%20Y%20SALMADOR.pdf, (December 2018)
[2]Patricia Mercado Salgado; Daniel Cernas Ortiz; Mónica Sánchez Limón; "Intellectual Capital in Mexican public universities. A comparative study", The Anáhuac Journal Busines and Economics, Volume 14, (2014):57
[3]Paloma Sánchez, Cristina Chaminade, Marta Olea; "Management of intangibles – An attempt to build a theory", Journal of Intellectual Capital, Vol. 1, (2013):312

do not know it. have. Likewise Marr[4]maintains that routine jobs or jobs low in skill requirements are not human capital, they do not add value to the wealth that the company has, it is considered human capital when it is an asset that adds value to the company. Also Bradley[5]considers that human capital is made up of the set of knowledge, skills and experiences that the company's employees have that generate value in the process; this element of intellectual capital serves as the basis for structural and relational capital.

Given this context, the study is proposed: "Assessment of intellectual capital: Analysis of human capital in SMEs in Ecuador." Having as a general objective to determine how intellectual capital influences through the human capital component in the SMEs in the manufacturing, commerce and services sector in Ambato and Riobamba, in the development of small and medium-sized businesses.

Conceptualization of knowledge

Knowledge is the set of experiences, values, information, perceptions and ideas that generate a mental structure that allows evaluation by adding new experiences, information and ideas.[6]He also points out that knowledge is the individual-organizational intangible resource and the capacity of individuals where their knowledge is combined to create different basic capabilities.[7]

Nonaka[8]states two types of knowledge, explicit or codified (tangible) and tacit or implicit (intangible). Explicit knowledge is that which is transmitted in formal and systematic communication language through computer programs, patents, diagrams. While tacit knowledge is related to the person, it is difficult to formalize or communicate it, being concrete and always acquiring it through experience.

The Knowledge Society

The knowledge society appeared in 1960 when considering the changes that arose in industrial societies, which is why it was called a post-industrial society identified by an

[4]Bernal Marr, Gianni Schiuma, Andy Neely, "Intellectual capital-defining key performance indicators for organizational knowledge assets", Business Process Management Journal, Vol.10, (2013):551
[5]Keith Bradley, "Intellectual capital and the new wealth of nations", Business Strategy Review, Volume 8, (1997):53
[6]María Paz Salmador, Eduardo Bueno Campos; "The direction of knowledge in the strategic process of the company: information, complexity and imagination in the spiral of knowledge", Journal of economics and business, Volume 19, (2003):17
[7]Eduardo Bueno, The direction of knowledge in the strategic process of the company: information, complexity and imagination in the spiral of knowledge, (Madrid: Instituto Universitario Euroforum Escorial, 2000), 55
[8]Ikujiro Nonaka, "The knowledge-Creating Company", Harvard Business Review, (1991):96.

economic and social structure where knowledge has replaced work, as well as raw materials and capital, which were considered the most important elements of productivity, in addition to economic development and social differences.[9]

In the knowledge society or new economy, two relevant elements are identified: The increase in production and use of intangible goods and services, adding more and more technology and knowledge that are used intensively. This new knowledge economy being the most important productive factor for reasons of technology or competitiveness.[10]

The Information Society becomes the Knowledge Society, when digital information is transformed into economic and social value, that is, into knowledge, tools or gross domestic product, which allows the creation of new industries, jobs, and in this way improve the standard of living of society with the use of knowledge.[11]

Knowledge Management

Knowledge management aims to design and execute the best strategies that allow the creation and distribution of knowledge in the company and that subsequently serve to measure the developed intangibles, facilitating organizational learning processes.[12]Likewise, knowledge management consists of promoting, sharing, preserving, updating and growing a company's knowledge, through the use of policies, strategies, activities, tools and mechanisms, so that it becomes an asset that generates value and strengthens the competitive advantages.[13]

Definition of Intellectual Capital

The Economic Organization for Cooperation and Development (OECD) points out that intellectual capital is the economic value of a company's intangible assets: Organizational or structural capital that refers to the estimated economic value of intangible assets such as: Innovation competencies, organizational competencies and market competencies; It also refers to the ownership of computer systems (software), distribution net works, supply chains. Human capital is the estimated economic value of the scientific and technical knowledge, capabilities,

[9]Peter Drucker. The Age of Social Transformation, (The Atlantic Monthly, The Age of Social Transformation, November 1994):53
[10]Charles Leadbeater and Demos London, New measures for the new economy, (Amsterdan: OECD Web, paper presented in the MERITUM Technical Meeting, 1999):9
[11]Pablo Valenti, "The Information Society in Latin America and the Caribbean: ICTs and a new Institutional Framework", Ibero-American Journal of Science, Technology, Society and Innovation, Volume 2, (2002):2
[12]Mercedes Garcia, "The constituent elements of the company's new wealth", Intangible Capital, Vol 0, (2004):1
[13]Jair Galvis, "Knowledge maps as a support tool for knowledge management", CINTEL Communications Research Center, (2009):1

mobility and experience of an individual that are the exclusive property of said individual that may temporarily be controlled by an entrepreneur if he or she is working; It also refers to internal (employees) and external (customers, suppliers) human resources.[14]

Likewise, intellectual capital lacks a single definition; it is oriented towards the study of different types of capital: human, structural, relational, and customer capital that provide a competitive advantage in the market and generate wealth for companies and countries. It is also recognized as the economic value of intangible assets and as a product of knowledge, according to table 1.

Table 1. Definitions of intellectual capital

Authors	Definitions
Bontis[15](nineteen ninety six)	It is the search and effective use of knowledge, as opposed to information, with the combination of human, structural and relational capital.
Brooking[16](nineteen ninety six)	It is the combination of intangible assets that allow the company to function such as: Market, intellectual property and infrastructure assets.
Edvinsson & Malone[17](1997)	It is the possession of knowledge, applied experience, organizational technology, customer relations and professional skills that provide a competitive advantage in the market in combination with the elements that make it up, such as: human capital, structural capital and customer capital.
Bradley[18](1997)	It is the ability to transform knowledge and intangible assets into resources that provide wealth to companies and countries.
Sveiby[19](1997)	It is the combination of intangible assets that generate growth, renewal, efficiency and stability to organizations.
Stewart[20](1997)	It is the intellectual material, knowledge, information, intellectual property, experience that is used to create value or wealth through the production of an asset of greater value.
Euroforum[21](1998)	It is the set of intangible assets of a company that, although not reflected in traditional accounting statements, generate value or have the power to generate it in the future. It is composed of human capital, structural or internal capital, and external relational capital.
Well[22](2003)	It is the strategic perspective of the "account and reason" of the intangibles of the organization, being the measure of the competencies in which the new knowledge

[14]Organization for Economic Cooperation and Development (OECD), International symposium: Measuring and Reporting intellectual Capital Amsterdam June 9-11, 1999. Manfred Bornemann, Adolf Knapp, Ursula Schneider, Karin Iris Sixl. Holistic Measurement of Intellectual Capital.
[15]Nick Bontis, "There's a price on your head: Managing intellect capital strategically", Business Quarterly, Volume 60, (1996):40
[16]Annie Brooking, Intellectual Capital, (London: International Thomson Business Press, 1996), 4
[17]Leif Edvinsson, "Knowledge management at Skandia", The Knowledge Challenge Conference, Volume 30, (1996):366
[18]Keith Bradley, "Intellectual capital and the new wealth of nations", Business Strategy Review, Volume 8, (1997):53
[19]Karl Erik Sveiby, "The intangible assets monitor", Journal of Human Resource Costing and Accounting, Volume 2, (1997):73
[20]Thomas Stewart, "Intellectual capital: The new wealth of organizations", Doubleday Dell Publishing Group, 1997).
[21]Euroforum, The Intelect Model, (Madrid: Euroforum Escorial University Institute, 1998)
[22]Eduardo Bueno, Maria Paz Salmador, Carlos Merino, "Genesis, concept and development of intellectual capital in the knowledge economy: A reflection on the Intellectus Model and its applications", Studies in Applied Economics, Vol. 26, (2008):43

	can be realized. It is made up of human capital or value created by people, structural capital or value of knowledge created in the organization and which is materialized in its systems and technological developments, and relational capital or value of knowledge created by the company, in relation to the environment.

Source: Own elaboration with information from the authors

Based on the previous table, intellectual capital is defined as the set of intangible assets of an organization related to knowledge, experiences, technology, customer relationships, professional skills that are used to create value or wealth and that provide a competitive advantage. in the market in combination with the elements that make it up, such as: human capital, structural capital and relational capital.

Intellectual capital is defined through the following comparison: The company is like a tree, one part being the fruits and another part that is not visible the roots.[23]Therefore, if we only worry about the fruits, the tree can die. For the tree to develop and continue bearing fruit, the roots will need to be healthy and nourished. If you apply this metaphor to organizations when they focus only on the fruits (for example, financial results) and do not consider the hidden values (intangible assets), the organization will not survive in the long term.

Regarding the origin of intellectual capital, it dates back to the 1990s, where economists and columnists from magazines and newspapers in the United States and Sweden confirmed the interest in this new concept, as an instrument to explain valuation in financial markets. mainly on the New York Stock Exchange, with the most important companies in R&D and investments being those that consider intangibles as assets of scientific and technological activity, based on knowledge.[24]

Furthermore, Edvinson and Malone[25]mention that intellectual capital is the value assigned to the set of intangibles created by the company. Intangible capital is based on knowledge or human intellect and is developed in the organization. For the reasons stated, the intellectual capital of organizations has been considered a hidden or invisible capital because in accounting it has not been reflected in any of the annual asset accounts such as: organizational systems, brands, databases, patents, relationships with clients, among others.

[23]Leif Edvinsson, "Knowledge management at Skandia", The Knowledge Challenge Conference, volume 30, (1997):366
[24]Thomas Stewart, Intellectual capital: The new wealth of organizations, (New York: First Currency Paperback Edition, 1999):3
[25]Leif Edvinsson and Michael Malone, "Intellectual capital", Spanish Journal of Financing and Accounting, Volume 30 (2001):609

Simo and Sallan,[26]They show their contribution in relation to the evolution of intellectual capital and point out that the beginning of intangible assets and intellectual capital comes from the late eighties and mid-nineties of the last century.

Intellectual capital is made up of three types of capital: Human capital, structural or organizational capital and relational capital.[27]

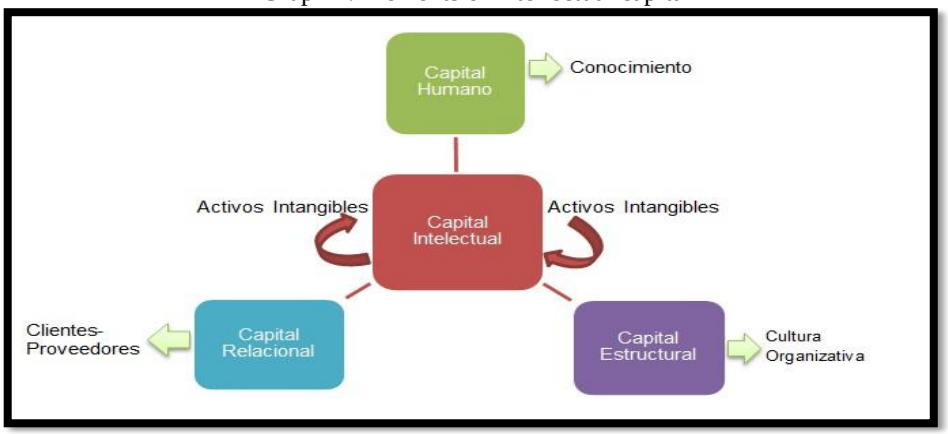
It is also stated that human capital as a component of intellectual capital refers to the knowledge that people, groups or teams of the company possess and that are of value to the organization, it is also the organization's ability to learn and generate knowledge or the ability to distribute it to those who do not have it.[28]Routine jobs or jobs low in skill requirements are not human capital, they do not add value to the wealth that the company has, it is considered human capital when it is an asset that adds value to the company.[29]Furthermore, it is considered that human capital is made up of the set of knowledge, skills and experiences that the company's employees have that generate value in the process; this element of intellectual capital serves as the basis for structural and relational capital.[30]Structural capital is the knowledge that the organization manages to make explicit, systematize and internalize and that may initially be in the company's people and teams. It is constituted by the organizational culture, the structured knowledge on which internal effectiveness and efficiency depend. of the company, the information and communication systems, the available technology, the routines, procedures and work processes, the patents, the management systems that constitute property of the company, which remain in the organization when its workers leave , solid structural capital facilitates the flow of knowledge and implies an improvement in effectiveness in the organization.[31]Relational capital is that which focuses on companies and not on isolated systems, relating to the outside, referring to the value that is given by the interrelationships of

[26]Pep Simó and José Maria Sallán, "Intangible Capital and intellectual capital: Review, definitions and lines of Research", Revista Estudio de Economía Aplicada, (2008):65
[27]Nick Bontis, "There's a price on your head: Managing intellect capital strategically", Business Quarterly, (1996):40; Nick Bontis, "Intellectual capital: an exploratory study that develops measures and models", Management Decision, (1998):63; Leif Edvinsson, Knowledge management at Skandia, (Brussels: The Knowledge Challenge Conference, 1996); Thomas Stewart, Intellectual capital: The new wealth of nations, (New York: Doubleday Dell Publishing Group, 1997); Erick Sveiby, "The intangible assets monitor", Journal of Human Resource Costing and Accounting, (1997):73; Leif Edvinsson and Michael Malone, Intellectual capital: Realizing your company's true value by finding its hidden braipower, (New York: Harper Collins, 1997):39
[28]Paloma Sánchez, Cristina Chaminade, Marta Olea, "Management of intangibles-An attempt to build a theory", Journal of Intellectual Capital, Volume 1, (2000):312
[29]Bernard Marr, Gianni Schiuma, Andy Neely, "Intellectual capital-defining key performance indicators for organizational knowledge assets", Business Process Management Journal, Vol. 10, (2004):551
[30]Magda León Santos; Gloria Ponjuán Dante, "Proposal of a measurement model for Knowledge Management processes in information organizations", Inter-American Journal of Library Science, vol. 34, (2011):87.
[31]Knowledge management, available at: http://es.wikipedia.org/wiki/gestion_del_knowledge

the company with clients, suppliers, shareholders, partners and with all interest groups. , both internal and external.[32]

In graph 1, the elements of intellectual capital are defined, consisting of: human capital, structural capital and relational capital.

Graph 1. Elements of intellectual capital



Source: Bontis[33](nineteen ninety six); Edvinsson[34](nineteen ninety six); Stewart[35](1997); Sveiby[36](1997) and Edvinsson and Malone[37](1997)

Human Capital

In the Intellectus Model[38]Human capital is made up of the explicit or tacit and also individual or social knowledge that people and groups possess, in addition to considering the ability to generate it for the benefit of the organization, made up of values and attitudes (being), skills (knowing). and capabilities (know-how). Human capital refers to what people and groups know and the ability to learn and share that knowledge with others so that once codified it can benefit the organization. The theoretical model of human capital to measure SMEs in Ecuador, based on the Intellectus Model, is described in table 2.

[32]Nick Bontis, "There's a price on your head: Managing intellect capital strategically", Business Quarterly, Volume 60, (1996):40
[33]Nick Bontis, "There's a price on your head: Managing intellect capital strategically", Business Quarterly, Volume 60, (1996):45
[34]Leif Edvinsson, "Knowledge management at Skandia", The Knowledge Challenge Conference, volume 30, (1997):370
[35]Thomas Stewart, Intellectual capital: The new wealth of nations, (New York: Doubleday Dell Publishing Group, 1997):74
[36]Karl Eric Sveiby, "The intangible assets monitor", Journal of Human Resource Costing and Accounting, Volume 2, (1997):75
[37]Leif Edvinsson and Michael Malone, Intellectual capital: Realizing your company's true value by finding its hidden braipower, (New York: Harper Collins, 1997):39
[38]Eduardo Bueno, Intellectus Model: Measurement and Management of Intellectual Capital", (Madrid: IADE, 2011):38

Table 2. Theoretical Model of Human Capital

VALUES AND ATTITUDES (be)	APTITUDES (Know)	CAPABILITIES (Know to do)
Self motivation Creativity Sense of Belonging Satisfaction Flexibility and Adaptability Orientation and sociability with the client	**Personal development Regulated Education Internal Training Specialized Training Experience**	**Teamwork Communication Leadership Reconciliation of work and family life.**

Source: Good[39](2011)

Theoretical Models of Intellectual Capital Focused on Companies

There are various models to measure intellectual capital in companies, including: Skandia Navigator, Intangible Assets Monitor, Balanced Scorecard or Balance Scorecard among others, the one used for this study is the Intellectus model.

Skandia Navigator Model

The Skandia model[40]It is important because the indicators allow us to establish where the company is, where it is going and also at what speed it is advancing in financial, administrative and technological matters, calling this process knowledge navigation.

The Skandia Navigator Model is represented with a house, the roof means the financial approach that corresponds to the balance sheet that is equivalent to the company's past, on the walls are the clientele approach that measures a type of relational capital, the process approach which measures structural capital, while at the bottom it projects to the future and represents the renewal and development approach that measures the company's preparation for the future in relation to employee training, new products, and in the center of the At home is the human approach that represents the commitment, capabilities and competencies of employees. It is also equivalent to comparing it as the heart, intelligence and soul of the organization.[41]

Intangible Assets Monitor Model

The objective of the Intangible Asset Monitor model is to guide entrepreneurs to establish whether intangible assets are creating value, and not loss, and to control their movement with respect to three groups of intangible assets: External structure or clients,

[39]Eduardo Bueno, Intellectus Model: Measurement and Management of Intellectual Capital", (Madrid: IADE, 2011):10
[40]María Luisa Saavedra and Miriam Edith Saavedra, "A proposal for measuring and incorporating intellectual capital in financial information: the case of Unión Febre", Cuadernos de Contabilidad, (2012):33.
[41]Leif Edvinsson and Michael Malone, Intellectual capital: Realizing your company's true value by finding its hidden braipower, (New York: Harper Collins, 1997)

structural internal or organizational and of our people or capacity and competencies of people or employees. It is the tool that allows you to identify the key intangible assets of companies and know how they are being managed through measures or indicators that are related to three approaches: Growth/renewal, efficiency and stability.[42]

Balanced Scorecard Model or Balanced Scorecard

According to Kaplan[43]They created the Balanced Scorecard tool with the intention of measuring business management through indicators related to four perspectives: Financial, customer, internal process, and innovation and learning, indicators are required for each of them. , goals and action plans. In addition[44]maintain that the Balanced Scorecard model or balanced scoreboard is a business measurement and management system used by several companies such as: East-man, Kodak, American Express and Taco Bell, it is based on the fact that a company will be successful when it satisfies three groups: Investors, customers and market value - employees, tries to measure the productivity of the processes used and the staff through the indicators used to calculate customer and employee satisfaction.

Intellectus Model

The Intellectus Model[45]divides Intellectual Capital into three essential components such as: Human, structural and relational capital; structural capital, which in turn is divided into organizational capital and technological capital, and relational capital, which is made up of business capital and social capital that are interrelated and influenced by two endogenous and exogenous perspectives, the endogenous ones having to do with the people and with the organization; while exogenous ones are related to agents in the environment.

The SMEs and Intellectual Capital in Latin America

SMEs in Latin America maintain a leading role in the economic development of countries, having an important presence not only because of the jobs they provide, but also because of the important: Contribution to GDP, increased productivity, contribution to

[42]Yolanda Funes and Cleotilde Hernández, "Measuring the value of intellectual capital", Accounting and Administration, (2001):45
[43]Robert Kaplan, "Conceptual Foundation of the Balanced Scorecard", Harvard Business School Working Paper, No 10-074, (2010):1
[44]Robert Kaplan and David Norton, "Mastering the Management System", Harvard Business Review, (2008)
[45]European Center for Business Development, (Euroforum), The Intelect Model, (Madrid: Instituto Universitario Euroforum Escorial, 1998, available at: http://modgesttrabajopjcb.blogspot.com/2015/10/modelo-intelect-euroforum- 1998.html

international trade and development of entrepreneurship with the creation of new businesses. Therefore, SMEs in Latin America can overcome barriers and become transcendent agents of structural change and increased productivity. For this, a new approach is needed in public policies of: Infrastructure, provision of services, financing, training. and innovation.[46]

The SMEs in Ecuador, a Government Strategy

Micro, small and medium-sized businesses in Ecuador constitute the main productive force according to official government data. Policies aimed at SMEs in Ecuador are found in three instruments that we analyze below. The National Plan for Good Living for the period 2013–2017 is the guiding instrument of the national government to achieve the Good Living of Ecuadorians, which constitutes full realization, recognizing and respecting diversities in harmony with our peers and nature, it is the strategy to the transformation of the productive matrix and to eradicate poverty.[47]

The Productive Matrix is the way in which society is organized to produce certain goods and services that are not limited only to technical or economic processes but also to the set of interactions between the different social actors that use resources to carry out the productive activities that It will transform production, and the social relations of the processes to become a country organized around knowledge and capacity building, infrastructure, productive financing.[48]

According to the Organic Code of Production, Commerce and Investment, micro, small and medium-sized enterprises are considered any natural or legal person that, as a productive unit, carries out a production, commerce and/or services activity and that meets the criteria of number of workers and gross value of annual sales. In order to access business promotion and development programs, MSMEs are classified according to table 3:

[46]Organization for Economic Cooperation and Development (OECD), Latin American Economic Outlook 2013, SME Policies for Structural Change (2012b)
[47]National Secretary of Planning and Development, (SENPLADES), National Plan for Good Living 2013-2017 (2013), available at: http://www.planificacion.gob.ec/plan-nacional-para-el-buen-vivir -2009-2013/
[48]National Secretary of Planning and Development, (SENPLADES), Transformation of the Productive Matrix, Productive revolution through knowledge and human talent (2012). Available at:http://www.planificacion.gob.ec/wpcontent/uploads/downloads/2013/01/matriz_productiva_WEBtodo.pdf

Table 3. Ecuador: Classification of MSMEs

Company size	Number of workers		Sales or gross income annually (dollars)	
	Minimum	Maximum	Minimum	Maximum
Micro business	1	9	0	100,000
Small company	10	49	100,001	1,000,000
Medium company	fifty	199	1,000,001	5'000,000

Source: Ecuadorian Institute of Statistics and Censuses[49](2011)

METHODOLOGY

The present study has a cross-sectional design with a qualitative approach. An empirical study is carried out where the intellectual capital of the SME is evaluated through human capital as a dependent variable, and three variables as independent: Values and attitudes, skills and abilities, through the application of a structured questionnaire through an interview with 378 entrepreneurs from the manufacturing, commerce and services sector from Ambato and Riobamba in Ecuador. It begins with the descriptive analysis of the composition of the sample and the statistical results are evidenced through an analysis of means.

Sample

The population under study is delimited to two cantons: On the one hand, Riobamba, which maintains 11,973 establishments that provide work for 41,122 people, and on the other hand, Ambato, with 13,592 businesses that have provided 62,736 jobs. SMEs in the manufacturing and commerce sectors are evaluated. and services, excluding the financial activities sectors and other sectors.[50]

To determine the sample, the finite population method is chosen in order to establish the size of the sample. The chosen sampling is simple stratified, where all elements of the population have the same opportunity to be selected. The level of confidence is of 95% and with a sampling error of 5%, a target population of 25,565 businesses in Ambato and Riobamba, a sample of 378 businesses is determined, the measurement instrument is constructed based on four sections: In the first the data is recorded general aspects of the company, from the second section the Intellectus Model is developed and the variables that measure human capital: Values and attitudes 21 items, third aptitudes 22 questions and fourth capabilities 23 items.

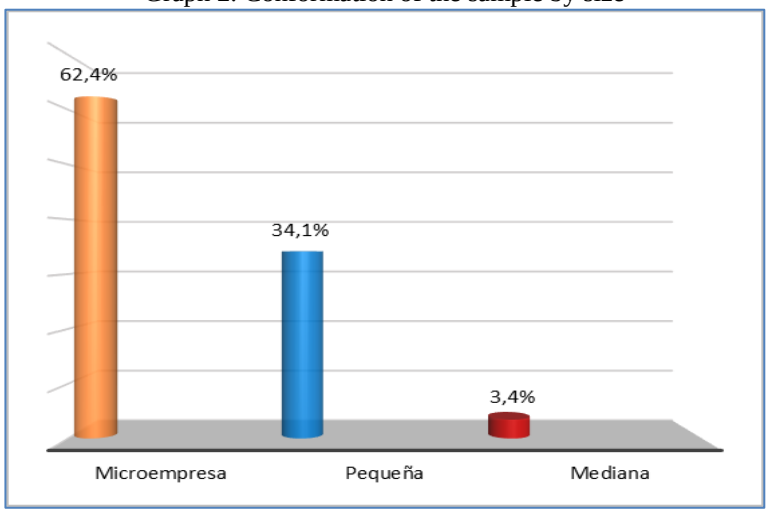
[49]Ecuadorian Institute of Statistics and Censuses, National Economic Census Results, 2011, available at: www.inec.gob.ec
[50]Ecuadorian Institute of Statistics and Censuses, National Economic Census Results, (2011), available at: http://www.ecuadorencifras.gob.ec/estadisticas-de-las-empresas/

The questions are rated using a five-level Likert scale: Never, rarely, indifferent, sometimes, and always. Cronbach's Alpha coefficient measures the reliability and internal consistency of the measurement instrument with a joint evaluation of 0.914 indicating that the data obtained in the measurement instrument have high reliability. The data obtained comes from the survey applied to 378 SME companies in the manufacturing, commerce and services sector, the statistical results are presented through the analysis of means.

Descriptive Analysis

The results indicate that according to the composition of the sample by company size, microenterprises have between 1 and 9 employees, small companies manage between 10 and 49 workers and medium-sized companies between 50 and 199 employees, being representative, as drivers. of the economy in Ecuador. One problem is the relevant presence of microenterprises, which generally maintain low-quality jobs and minimum salaries.[51]

Graph 2. Conformation of the sample by size



Source: the authors

On the other hand, according to the composition of the sample by economic sectors, in Ecuador the most representative are the service sector with 43.1% and the commerce sector with 41.8%, which are mainly made up of for the microenterprise that does not generate highly productive companies, in addition the industry, which is the sector that provides jobs with the highest added value, only reaches 15.1% of the total.

[51]Organization for Cooperation and Development, (OECD), OECD Assessment of the Knowledge-Based Start-Up Sector, (2012a)

Analysis of Means of the Variables: Values, Aptitudes and Capacities

The analysis of means is a procedure that allows obtaining descriptive statistical results between the different groups and subgroups defined by one or more independent variables. In the study, an analysis of means is developed for the independent variables: Values and attitudes, aptitudes and abilities, with the results being the following:

Table 4. Mean analysis: Values and attitudes

No.	Variables	Half
1	Self motivation	3.07
2	Creativity	3.59
3	Flexibility and adaptability	3.38
4	Satisfaction	3.41
5	Sense of belonging	3.97
6	Sociability with the client	3.70

Source: the authors

Table 5 Analysis of means in the variable: Aptitudes

No.	Variables	Half
1	Personal development	3.13
2	Regulated education	2.51
3	Experience	3.89
4	Specialized training	2.94
5	Internal learning	2.85

Source: the authors

Table 6 Analysis of means in the variable: Capacities

No.	Variables	Half
1	Communication	4.07
2	Reconciliation of work and family life	2.90
3	Leadership	4.73
4	Teamwork	3.33

Source: the authors

CONCLUSIONS

It is concluded that intellectual capital through the human capital factor influences the development of SME companies through the variables, values and attitudes, skills and abilities.

The results obtained through the analysis of means in the variable values and attitudes, the one that occupies first place is the variable feeling of belonging, which has the highest mean of 3.97, in second place, sociability with the client with a mean of 3.70 and in third place creativity with the average of 3.59.

With respect to the aptitude's variable, the experience variable is in first place with an average of 3.89, in second place is personal development with an average of 3.13 and in third place is specialized training with an average of 2.94.

The analysis of means of the capability's variable indicates that the leadership variable is in first place with a mean of 4.73, also the communication variable with a mean of 4.07, in addition to the teamwork variable with a mean of 3.33.

Therefore, the development of SMEs with respect to human capital is mainly aimed at ensuring that staff have a sense of belonging and commitment, which allows them to socialize with the client and develop their creativity. Likewise, the feeling of belonging establishes that the worker feels an integral part of the company, trusting the administrators, having freedom and autonomy to plan their work and avoiding high turnover, ensuring their permanence in the company. This value allows SMEs to develop and the worker to increase their productivity by working in an appropriate environment.

In addition, the SMEs businessman considers it relevant to hire an experienced worker who maintains personal development by involving his family, the company carries out social and cultural activities and specialized training that contributes to improving the development of the company, allowing for the recruitment of personnel with a postgraduate degree or specialization. technical, offering training with specific skills for the development of the company. Finally, teamwork is encouraged, considered the most relevant, and a rule that is applied in companies to motivate camaraderie, developing incentives in this regard, with the aim of improving the quality of the products and increasing the productivity of workers, so that SMEs can develop.

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