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Accounting and Financial Treatment of Knowledge Management

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A B S T R A C T

The objective of this text is to address the accounting and financial treatment of knowledge management from an analytical and interpretative perspective of common positions of different authors including our own. Use is made of primary documentary sources of the International Financial Reporting Standard Foundation in the International Accounting Standard on intangible assets, for the identification of formal aspects; and, from secondary sources, of low exhaustiveness, such as systematic reviews that represent descriptions of primary documents to find out other points of view on the subject reviewed. As a final reflection, knowledge management does not meet one of the three requirements to be configured as an intangible asset since it is not possible to control it; although it is a potential element in the growth and competitiveness of an organization, it cannot be quantified in order to be measured and inspected.

Keywords:Assets, intangibles, knowledge management, IFRS, accounting, financial.

1. Introduction

Knowledge management is the sum of sub-processes installed within an organization that arises from the processing of data and concrete information, allowing them to be analyzed and interpreted to generate knowledge in relation to the objectives of each person involved in the process. (Rivera & Rivera, 2016).

According to (Cruz - Vega, 2019) defines that "*knowledge is the result of the assimilation of information that takes place in the learning process*". This is because knowledge, based on the identification, acquisition, development, retention, distribution and utilization of available information, is a source that generates income and competitive advantages (García Medina et al., 2018) dynamized by all the collaborators in the organization, considering the capacity of adaptation of said resource to the way of understanding and transmitting the facts or things that are known and that can be applied by different users; in this sense it becomes valuable to perform an adequate accounting and financial treatment of a key element in the productivity and profitability of a business (Rojas Pecio & Roa Petrasic, 2021)..

Now, what is the accounting and financial treatment of knowledge management, surely this text has the answer.

2. Reflection

Knowledge management alone represents an accumulation of people's efforts, supported by "learning objects" (Muñoz-Hernandez et al., 2020) with desires to find the way to be effective in the development of some commercial and/or service activity by the way in which their thinking gives life to what is perceived by their senses and the synergies created around it; this leads to the training and specialization experienced by the participants (work team) involved in the different processes of a company and as users of such information. (Amado - Piñeros, 2020). However, quantifying subjective variables such as knowledge management, thinking and knowledge itself, makes the control over the benefits they may provide to a company in the future

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insufficient, given the intangibility of the concepts in light of the International Financial Reporting Standard (IFRS) established by the International Accounting Standard (IAS) 38 Intangible Assets.

The IFRS, developed, through the International Accounting Standards Board, with the support of other organizations, the International Financial Reporting Standards - IFRS for those companies with accountability obligations. (IFRS Foundation, 2016) Among them, the recognition, measurement and valuation of intangible assets stand out; this standard represents a way to find, moderately, a proximity towards its applicability to knowledge management.

Different authors have made their contributions in this regard:

Table 1. Authors and contributions on the knowledge management

Author	Contribution
(Edvinsson & Malone, 1999)	They argue that knowledge management can be evaluated through financial performance indicators, such as return on invested capital and revenue growth. They propose the use of a balanced scorecard to measure and evaluate knowledge management.
(Amaya, 2019)	Performs an analysis and appreciation of economic theories that support intellectual capital and establishes four categories: human, structural, relational and social.
(Edvinsson & Sullivan, 1996)	They argue that knowledge should be treated as an intangible asset and should therefore be included in the company's balance sheet. They propose a knowledge measurement model based on four dimensions: structural, human, customer and innovation.
(Ficco, 2020)	It performs a compiled analysis of the concept of intellectual capital, as well as elements, models and categories used for its measurement.
(Stewart, 1994)	Knowledge is a company's most important asset and should be treated as such in the financial statements. However, he points out that it is difficult to measure, evaluate and include it in the financial statements.
(Sveiby, 1997)	Suggests that knowledge can be measured through three dimensions: human capital, structural capital and relational capital. Proposes a model for measuring intellectual capital that includes financial and non-financial performance indicators.
(Lev, 2001)	Argues that the inclusion of knowledge in financial statements is a problem due to the

Author	Contribution
	lack of clear accounting standards and the difficulty of measuring knowledge. Proposes an approach based on measuring the company's intellectual capital and suggests including information in annual reports.

Note: Author

The impalpability of knowledge management is evident in something like time: it cannot be touched or measured, but there is a perception that it exists and has an effect on something, and this makes it possible to consider it an intangible asset that generates value for the company in some way. For this reason, it is necessary to specify some concepts that facilitate the deepening of this appreciation.

Initially, an asset is a resource that is controlled by an entity, a product of past situations or events, from which future economic benefits are expected to be obtained. Now, an intangible asset is one that is identifiable, without physical appearance and of a non-monetary nature, this being understood as the absence of the obligation to give or receive something in exchange (Deloitte, 2018).

By way of example, an intangible asset may be technological or scientific knowledge, design and implementation of new processes and systems, concessions or licenses, intellectual property, commercial or trademark know-how, patents, computer programs, copyrights, films, customer lists, mortgage service rights, fishing licenses, import quotas, franchises, commercial relationships with suppliers or customers, customer loyalty, market shares, marketing rights, technical and market knowledge, personnel training, research and development activities.

However, intangible assets, excluding those that are otherwise recognized by regulation, must be identifiable, i.e. separable; controllable; and derive financial income from them. Otherwise, they will be recognized as an expense or will form part of goodwill . (Cataño M., 1995) recognized on the date on which it was acquired.

According to the above, knowledge management does not meet one of the three requirements to be configured as an intangible asset: it lacks the ability to be controlled, which generates a contradiction, since although it is a potential element in the growth and competitiveness of an organization, it cannot be quantified in order to be measured and inspected, but its added value, according to Cataño, 1995, is reduced to an "extra profit" for the company as a result of the difference between what an employee actually produces and the salary he/she receives for it; a singular position of Marx in the face of capitalism:

> In order to be able to extract a new exchange value from the usual value of the commodity, it would be necessary (...) to discover in the market itself a commodity whose use value possesses the particular virtue of being a source of exchange value (...) That commodity whose use is the creator of an increase in exchange value exists in the market, it is the labor force. (Marx & Engels, 1960)

In the words of Arnaudo, 2013, "capitalism discovers and utilizes the only commodity that has the property of producing, and when used, an exchange value greater than its original exchange value: the labor force of the worker" (p.46) and although there are methodologies to give reasonable value to the knowledge generated by the worker (Steinmueller)there is no assurance that it will be perpetual for a company and that, on the contrary, it is susceptible to be lost in the face of better opportunities for it.

The most certain thing so far is that knowledge management symbolizes a good or bad perception of intellectual capital, as an "intangible factor" (De Luz - Martínez & Ávalos - Pelayo, 2022). Today we can name and point out successful models such as Grupo EPM, Grupo Nutresa, Instituto Colombiano de Petróleo, Amarilo, Postobón S.A. who are distinguished by innovation, growth and research, thanks to the human talent that has been harvested, highlighting, in addition, that they are companies of Colombian origin, with presence at international, national and regional level.

It is normal to find hundreds of business benchmarks, through famous corporate reputation and sustainability rankings, that stand out for having a high human capital and that have undoubtedly led them to occupy positions such as best place to work, good corporate governance, ability to attract and retain talent, among others. (Lemus - Quintero & Carrascal - Delgado, 2020).. All this is given thanks to the flexibility of the administrative methods adopted, which has led to the design and execution of tactics and procedures conducive to growing and developing a profitable industry (Peñaranda et al., 2015)one of them being the adequate and strategic management of knowledge.

In this sense, the accounting and financial treatment of knowledge management is carried out through the recognition of practical situations that imply the realization of a monetary event such as training, forums, specializations, updates and others, which make work teams improve their skills and develop their knowledge according to the needs of the company; each item is recorded taking into account the cost center to which it belongs, whether it is an expense or a cost, susceptible to be recovered, but not recognized as an asset or investment that can be given a value and weight in a financial statement, much less depreciated or amortized.

Now the question would be, what happens when a worker leaves after knowledge has been managed in him? Is knowledge management a false expectation of growth and competitiveness for that company that wishes to hire a high level human capital? Rivera & Rivera, 2016, state that "knowledge has become the main production asset as opposed to tangible assets" but at what cost starting from the premise that it is no longer possible to deal with an asset?

3. Conclusions

Different authors expose, through the different works and proposals on knowledge management or intellectual capital in relation to accounting and finance, positions ranging from the proposal of ways and methods of including the term in financial statements, while others point out that this process is a real problem due to the absence of clear accounting standards to measure it. However, all agree on the importance of knowledge management in the success of a company.

The panorama is as follows: companies are training and improving the competencies of their workers, but they are "escaping"; they are spending something that they will hardly see the return in the short and medium term. What to do? The answer is simple, as mentioned at the beginning of this document, knowledge management, although it is a fundamental part of the business, is only one element of the thousands that an organization must process in order to manage it harmoniously.

The tacit expression of knowledge management cannot be summarized in indicators and financial information that allows to know if it is profitable or not, but to identify the profiles required for the development of activities through the recognition of previous learning and the standardization of procedures. (Taylor, 2003)The goal is to identify the profiles required for the development of activities through the recognition of prior learning and the standardization of procedures (Taylor, 2003), in the style of Taylor's old school, with the risk of losing them along the way.

References

Amado - Piñeros, M. I. (2020). El desarollo financiero en épocas de crisis económica - caso de estudio América Latina: Argentina, Chile y Colombia. Revista Científica Profundidad Construyendo Futuro, 13(13), 21-30. https://doi.org/https://doi.org/10.22463/24221783.2547

Amaya, L. (2019). El capital intelectual es un reto para el sistema empresarial. Contribuciones a la Economía.

Arnaudo, F. (2013). Teoría de la plusvalía en Marx. Revista Cultura Económica, 86, 43-49.

Cataño M., J. (1995). La plusvalía marxistas: ¿una reformulación clásica o monetaria? Cuadernos de Economía, 24-52.

Cruz – Vega, F. A. (2019). Evaluación socio formativa en los procesos investigativos del programa de Pedagogía infanti. Revista Científica Profundidad Construyendo Futuro, 10(10), 10-23. https://doi.org/https://doi.org/10.22463/24221783.2523

De la Luz - Martínez, M., y Ávalos - Pelayo, R. (2022). Capital intelectual, relación con liderazgo y personalidad gerencial en petroleras Upstream mexicanas. Revista Científica Profundidad Construyendo Futuro, 16(16), 41-54. https://doi.org/https://doi.org/10.22463/24221783.3452

Deloitte. (03 de 2018). Deloitte. https://www2.deloitte.com/content/dam/Deloitte/cr/Documents/audit/documentos/niif-2019/NIC%2038%20-%20Activos%20Intangibles.pdf

Edvinsson, L., y Malone, M. (1999). El capital intelectual: cómo identificar y calcular el valor de los recursos intangibles de su empresa. Gestión 2000.

Edvinsson, L., y Sullivan, P. (1996). Developing a model for managing intellectual capital. European Managemen Journal, 14(4), 356-354.

Ficco, C. (2020). Una revisión del concepto de capital intelectual y de las principales alternativas para su identificación y medición. Revista Activos, 18(1), 161-203. https://doi.org/https://doi.org/10.15332/25005278/6162

García Medina, V., Rodríguez Fajardo , E., y Estrada Medina, L. (2018). Knowledge management model and measurement of intellectual capital in the financial sector. Iberian Conferencie on Information Systems and Technologies, 1-7. https://doi.org/10.23919/CISTI.2018.8399196

IFRS Foundation. (2016). https://www.ifrs.org/content/dam/ifrs/about-us/who-we-are/who-we-are-spanish-v2.pdf

Lemus - Quintero, J. A., y Carrascal - Delgado, F. A. (2020). Las acciones de responsabilidad social empresarial en Colombia. Revista Científica Profundidad Construyendo Futuro, 9(9), 16-24. https://doi.org/https://doi.org/10.22463/24221783.2525

Lev, B. (2001). Intangibles. Management, measurement and reporting. . Brooking Intitution.

Marx, C., y Engels, F. (1960). El Manifiesto Comunista. Buenos Aires: Editorial Anteo.

Muñoz - Hernandez, H., Canabal - Guzman, J. D., y Galarcio - Guevara, D. E. (2020). Realidad aumentada para la educaciòn de matemática financiera. Una app para el mejoramiento del rendimiento académico universitario. Revista Científica Profundidad Construyendo Futuro, 12(12), 37-44. https://doi.org/https://doi.org/10.22463/24221783.2634

Peñaranda, M., Rodríguez , M., y Soto, F. (2015). Responsabilidad social empresarial: una estrategia para conseguir las mejores prácticas administrativas. Revista Ingenio, 8.

Rivera, Í., y Rivera, G. (2016). Design, measurement and analysis of a knowledge management model in the context of a Mexican university. Innovar, 21-34. https://doi.org/http://dx.doi.org/10.15446/innovar.v26n59.54320

Rojas Pecio, H., y Roa Petrasic, V. (2021). Proposal of a knowledge self-management model for the productivity of small companies in the age of knowledge. Innovar, 31, 73-84. https://doi.org/10.15446/innovar.v31n80.93665

Steinmueller, W. (s.f.). Las economìas basadas en el conocimiento y las tecnologìas de la informaciòn y la comunicaciòn.

Stewart, T. (1994). Your copany´s most valuable asset: intellectual capital. Revista Fortune, 68-74.

Sveiby, K. (1997). The new organizational wealth. Managing and measuring kmowledge based assets. Koehler Publischers.

Taylor, F. (2003). The Principles of Scientific Management. España: Dover.