Management of Intellectual Capital in a System of Management Accounting Information

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***Abstract*— The recognition of Intellectual Capital as a source of competitive advantage and differentiation element for organizations requires an application of new management strategies that include this feature. Considering the importance of the Accounting Information System (AIS) in organizations, the research has the main objective to investigate the contributions of accounting as Management Information System in management of Intellectual Capital in an organization. Therefore, it was adopted a single case study as research strategy, applied in a Brazilian industry of consumption goods, on the market for over 85 years. The results obtained in the documentary analysis, questionnaires, interviews and literature show that the Accounting Management Information System (AMIS) contributes to the management of Intellectual Capital. In the investigated organization, AMIS is widely used and shows similarities with the specifications found in the literature, possessing the ability of adaptation to receive indicators or variables that enable the management of Intellectual Capital. It was found that the incorporation of the variables of Intellectual Capital in AMIS could be accomplished by adopting the method proposed by López-Ruiz and Nevado-Peña, that uses both traditional financial indicators and indicators of Intellectual Capital, not conflicting with the traditional AMIS, but complementing it. Inserting variables of Intellectual Capital in AMIS also allows uniformity of understanding on the subject by all company managers.**

Index Terms-Intellectual Capital; Intellectual Capital Management; Accounting Management Information System

I. INTRODUCTION

Due to the growing importance of intangible assets for organizations, it is necessary to apply new strategies, new management philosophies and forms of evaluation of the company's value that include them [1, 2].

Given this need, in the past two decades, the subject Intellectual Capital aroused interest among researchers from different fields [3], resulting in the creation of models and approaches to measurement and management intangible assets. So the challenge for models is enable, from the use of traditional metrics (economic and financial) and non-traditional metrics, measure, objectively, the benefits that the Knowledge and Intellectual Capital Management can bring to organizations meet them strategic, managerial and operational objectives.

Accounting, understood as the method of identifying, measuring and communicating economic, financial, physical and social information, to enable decisions and appropriate judgments by users of information [4], had its role questioned for not contemplate Intellectual Capital in their statements. However, this limitation is concerning financial accounting, which means that the matter be directed to management accounting which, through management models can incorporate the measurement and management of Intellectual Capital [1] for internal use in organizations.

The incorporation of the management of Intellectual Capital by accounting provides the expansion of the Accounting Management Information System, which can extend even to the borders of the own organization's Information System [5, 6]. So, the main objective of this study is to investigate the contributions of accounting as Management Information System in Intellectual Capital management in an organization.

II. STATE OF ART

A. Intellectual Capital

Studies on intellectual capital gained shape at the end of the 90s, with publications of Sveiby, Stewart, Edvinsson and Malone, Bontis, Brooking, Ross and Ross, Lev, among others. Definitions of intellectual capital made by these authors converge at some point, treating it as a hidden asset, without physical substance, capable of generating future economic benefits for the organization. Some authors define it through the presentation of its elements [7, 8, 9, 10], saying that intellectual capital is related to the ability of employees, to organizational resources and the way they operate, and the company's relationships with its stakeholders. Classification into elements allows the ordination of a magnitude of possibilities into smaller groups [3].

Pioneers who have studied intellectual capital [7, 8, 11, 12, 13] mapped the main variables related to the phenomenon and thus defined the formative elements of intellectual capital that guided the studies later. From this initial phase until the most recent studies, it is verified that the authors agree on the origin of the formation of intellectual capital, adopt the mentioned classifications, or make small changes that do not affect its essence [1, 14]. The taxonomy usually adopted is based on a triple dimension and comprises the following elements: human capital, structural or organizational capital and relational capital.

Human capital is related to human resources within the organization and can be defined as the sum of the competences of employees, tacit knowledge, skills, innovation capacity, attitude, commitment, wisdom, and experience [15]. Organizational or structural capital is the institutionalized capital or explicit knowledge derived from organizational systems, organizational culture and processes to support the development of human capital [16]. Additionally, it consists of management philosophies, information systems and technologies. Relational capital is based on the development and maintenance of high quality relationships with any organization, individuals or groups inside or outside the enterprise and influencing business performance [17].

An important decision for the organization is to manage and monitor the three dimensions of intellectual capital to ensure that the capabilities of the organization are adequate to its external environment [18].

The measurement of intellectual capital is one of the main activities of the intellectual capital management process and due to its importance, different methods or models have emerged in recent years. It is noted that all methods have their importance and serve different purposes, which makes interesting the existence of a method that works with both monetary values as non-monetary values. A method that stands out in this context is the model proposed by Lopez-Ruiz and Nevado-Peña [19], called "Management of the total value of the company." It is a management tool characterized by its dynamic and total vision of the organization, which combines traditional accounting aspects (economic and financial) with assessments of intellectual capital components, through business modeling, called "trilogy of the total analysis". There is also the cyclical approach between the three views.

The economic and financial aspect is centered in the comparison with the main competitor of the sector, through economic and financial indicators such as liquidity, solvency, profitability and productivity. This view is complemented with a financial management, which must carefully plan the company's shares. Alone, economic and financial vision is nothing more than the traditional accounting, which is mainly useful for monitoring business in the short term.

Intellectual capital vision turns around knowledge and management of the future value of the company and it has the following components: Human Capital, Structural Capital (processes, relationships, communications, research, development, innovation, etc.) and other items not included previously, but that generate future benefits.

The third view or perspective, which deals with business models, fundamentally offers future information, in other words, allows designing growth strategies in terms of real value of the company and know the balance or imbalance of intellectual capital components of the organization. It also reports on the evolution of significant accounting and financial magnitudes obtained in the first vision.

The method is sustained through the use of questionnaires, which should be applied to users of the information generated for decision-making.

To make predictions for the following years, the results and values from previous years are considered, allowing projections and comparisons using statistical or econometric models.

The highlight for the model of López Ruiz and Nevado Peña [19] was because of its scope, it uses traditional accounting and financial information and information on intellectual capital to make future projections considering all assets in a company and the relationship between them.

B. Accounting Information System (AIS)

The concepts of information systems, accounting systems and accounting merge themselves, demonstrating the accounting as an information science that uses its own language to store and transmit specific message to potential stakeholders [20]. Besides being the fundamental part of the company's management system, AIS aims to provide monetary and non-monetary information for the activities and decisions of operational, tactical and strategic levels of the company and to external users [21].

AIS environment expands as each new operation performed by the company corresponds to a new "arm" of accounting that extends to aggregate that resource to the control of the system [6]. It means that the AIS extends to the boundaries of the enterprise system and their limits are the same.

A company´s AIS is directly related to the organizational culture, with the level of strategic planning and information technology that the company adopts [22]. It can get reliable information about the financial structures of the organizations that have a good AIS structured.

Regarding integration with other systems (or modules), AIS can be [5] independent or conceptually integrated. Integrated systems facilitate accounting to fulfill its role [23]. Therefore, ERP softwares (Enterprise Resource Planning) help to rescue the role of AIS while hard-core of the organization's information system. The centralized part of the integrated systems consists of the accounting module, which is its core, plus the modules that relate directly to the financial accounts (treasury, banking, etc.). The distributed part of the AIS are other modules that do not belong to the central part. Practically all other modules of the integrated enterprise information system are involved with accounting entries and thus treat accounting data, therefore they are considered the distributed part of AIS.

With a larger scope and based on the AIS, there is the Accounting Management Information System (AMIS) or Controllership System, whose duties are to inform, assisting decisions and proposing alternatives; and also impact the business model, bringing economic considerations and proposing tools for management control [5]. Some controls may require information from other information systems, such as the environmental information system, which aggregates data on the economic environment with indexes and market trends. A module with performance indicators for strategic control may propose a set of measures not exclusively financial, serving the implementation of the performance measurement through a specific methodology [23, 24].

Thus, it can be said that AMIS has as principles the interconnection of monetary and non-monetary measurements [5, 25] to offer the company a set of procedures and information for the economic management of the business entity within systemic vision [26].

C. Accounting and Intellectual Capital

To understand the position of the intellectual capital within organizations, it is interesting the classification made by Lopez-Ruiz and Nevado-Peña [27]. In this classification, the first step is to distinguish between the intangible assets that are identifiable, separable and controllable and those that are not. The second step is to separate those that are acquired from third parties and those that are internally generated. The third classification refers to distinguish the visible from the invisible intangible assets.

Visible intangible assets are those for which there is accounting regulations. Therefore, they can be identifiable and controllable or not; they can be internally generated, acquired from third parties (such as software and franchises) or through the acquisition of a new business, recognizing and accounting goodwill. Goodwill is formed by values that cannot be individually identified in the acquisition of a business and can only be recorded in accounting books at the time of acquisition of a company [28].

The hidden intangible assets are those for which there is no accounting regulations, so they are not listed in the financial statements. They are classified as non-identifiable and non-controllable, where the main component of this group is the Intellectual Capital, which is the object of this research [27].

The concern of accounting in measuring the value of intangible assets is not new, however, to register them it should be respected Accounting Principles, particularly the principle of original cost and the principle of continuity. The Balance Sheet, the main target of criticism for not adequately measure the value of hidden intangible assets, aims to demonstrate the book value of the organization; and the concept of book value is different from the concept of market value. So Balance Sheet accomplishes what it claims to do. Hidden intangible assets are considered only on market value and should be directed for management accounting.

III. CASE STUDY

The techniques used in the case study to collect data were questionnaires, interviews, company documents and literature. The company selected for the application of research, here called Beta Company, is a Brazilian manufacturing of consumer goods, market leader in Brazil and Latin America in some segments it serves. It is in business for over 85 years and has a significant number of intangible assets that have been taking shape throughout its existence and, also because it is an industry, it has a significant amount of tangible assets. The company uses an integrated management system (ERP), which favors the establishment or improvement of information systems for management and strategic use. AMIS is the main provider of information for decision-making and, finally, despite not having the Intellectual Capital Management structured, there is a concern of the company on the matter, since there are initiatives of publishing Social Reports and also the implementation of competency management.

The questionnaire aims to identify the elements that compose the Company's Intellectual Capital and practices for Knowledge Management (KM) and Intellectual Capital Management (ICM), in the perception of managers. It was applied to managers and supervisors of the company. At the time of the survey (June 2014), the total number of these professionals registered in the company's HR was 62, however, it was excluded those who work outside the company, totaling thus 46 eligible professionals.

In order to level the concept of managers about intellectual capital, before starting the questions, it was placed the concept of intellectual capital adopted for this research. Moreover, it have been placed two questions to identify the respondent profile, one to identify how long the manager is in the company and another to identify the department to which it belongs: administrative/financial, commercial or industrial.

Questions were based on the study of Lima [29], with adaptations according to the Company Beta activity. It is divided into two blocks (Table 1 and 2) that have statements, which managers analyzed and expressed their opinion regarding the level of description of Company Beta. The questionnaire model uses Likert scale with a five point measuring (1 to 5), with mid-point (3) representing neutrality. The question presented was: "Consider the statements of the Blocks I and II, and indicate how they describe Beta Company. Check using the scale: (1) It not describes; (2) It describes a little; (3) Indifferent / Neutral; (4) It describes; (5) It describes faithfully".

TABLE I. BLOCK I OF THE QUESTIONNAIRE

Identifying the elements that make up the intellectual capital of the company		
1	In my company, every employee is aware of their task and know how much they contribute to the achievement of organizational goals.	**Human Capital**
2	In my company, each employee is treated as a rare asset and there are efforts to put the right person in the right role.	
3	In my company, there is a process of ongoing innovation and there is incentive for all employees participate in the same.	
4	In my company, there is an effective process to receive, study and implement the suggestions of employees.	
5	In my company there is an infrastructure that helps the employee does a good job.	**Structural or Organizational Capital**
6	In my company, organizational culture, represented by the set of values that serve as a model of behavior, is an important item.	
7	In my company, product quality is an essential factor for competitive advantage.	
8	In my company, information systems are advanced.	
9	In my company, we know how much our brand represents.	
10	In my company, strategic alliances with suppliers, distributors or customers are encouraged.	**Relational Capital**

Block I has 10 questions that objective to identify the elements that make up intellectual capital of the company. Questions 1 to 4 deal with human capital; questions 5 to 9 represent Structural or Organizational Capital; and Question 10 represents Relational Capital. Block II consists of 5 questions, whose purpose is to verify if the company manages somehow the elements of its intellectual capital.

TABLE II. BLOCK II OF THE QUESTIONNAIRE

Management practices on Knowledge Management and Intellectual Capital	
1	Practices and policies of human resources are associated with the acquisition of external and internal knowledge, as well as the generation, dissemination and storage of knowledge.
2	Regarding the aspect of organizational culture, there is an incentive to the development of a culture of innovation, experimentation, continuous learning and committed to the long-term results and the optimization of operations in all areas.
3	Organizational structures are based on the work of multidisciplinary teams.
4	Measurement of results is done from different perspectives and its communication is made throughout the enterprise.
5	There is a commitment in learning processes with the external environment, mainly through alliances with other companies.

Interviews are divided into two stages, which have different purposes. The objective of the first step is to understand the functioning of the Beta Company´s AIS and the aim of the second stage is to check how intellectual capital is managed.

To understand the operation of the AIS, a semi-structured interview with the accounting coordinator was held. The interview was based on a road map to assist the driving, which is composed of the following steps: 1) Description of system users; 2) What information generated by the operating modules integrate accounting; 3) How the integration between the operational modules and accounting occurs; 4) The existence of other systems beyond ERP; 5) What systems are fed by information generated by accounting; 6) Identification of the AIS information flow; 7) How the information generated by accounting are used for management control; 8) How systems are evaluated; 9) Check if there is any control of intangible assets.

The interviews in the second stage of the research aimed to verify how intellectual capital of the company is managed. For this, there were considered the variables of intellectual capital that received the highest score in the analysis of the questionnaires. It was expected that these interviews provided a better understanding of how intellectual capital is managed in the company, complementing the responses to the questionnaire (Block II) and the answers of the interview with the accounting coordinator.

Data analysis was qualitative, both for document analysis as for interviews and questionnaires, taking based Content Analysis [30]. Analysis of the questionnaires was carried out by department/area: Administrative/Financial, Commercial and Industrial, using for this purpose the technique of semantic differential of Osgood [31], creating indicators on a 4-point scale, so the neutral point was disregarded.

The categories used measure the description of magnitude of intellectual capital, since "It does not describe" to "Describes Faithfully". The answer scale adopted for this analysis goes from -10 (in case of all respondents signal "It does not describe") to 10 (in case of all respondents signal "Describes faithfully"). So for every issue addressed there will be a single number that represents how much the managers believe that this variable describes Beta Company, enabling the comparison of the variables studied. As each department/area of the company has a different number of respondents, the values adopted for the answer choices vary in each of the three cases, however, all department remain within the same range (Table III).

TABLE III. VALUES ADOPTED FOR THE ANALYSIS OF QUESTIONNAIRES

Alternatives	Administrative (10 answers)	Commercial (8 answers)	Industrial (20 answers)
It does not describe	-1	-1.25	-0.5
It describes a little	-0.5	-0.625	-0.25
Indifferent/Neutral	0	0	0
It describes	0.5	0.625	0.25
It describes faithfully	1	1.25	0.5

IV. RESULTS

It was applied 46 questionnaires and 38 answers obtained, i.e. 82.6% of the total. There has been a significant contribution of professionals from all departments, which highlights the relevance of the research for them. About the time working in the company, 12 respondents have more than 26 years; 5 professionals are 21-25 years; 7 are 16-20 years; 8 are 11-15 years; and 6 are in the company less than 10 years. The numbers show that the professionals who are ahead of the company have many years of service, showing the low turnover in these positions and the need for experience to be in management positions. As the experience is one of the

components of human capital, it can be concluded that the company has a high intellectual capital in its managerial staff.

Values that represent the level of description of intellectual capital variables, in the perception of managers are presented in Table IV.

By analyzing the variables that stood out in the questionnaire, despite minor differences, there is a convergence to the same variables in the three areas/departments analyzed, as follows: Quality of Products, Organizational Culture, Information Systems, Mark and, with values slightly lower, Infrastructure, all of which correspond to the variables of Organizational Capital. Therefore, it is concluded that Organizational Capital has a great importance in the formation of Beta Company's intellectual capital.

With a smaller representation than the variables that make up Organizational Capital, there are the variables that make up Human Capital: Employee knowledge on the job, Competence of employees, Process of ongoing innovation and Creativity and innovation of employees. In these four variables, there has been a change in perception among the areas/departments where the values obtained in commercial department exceed the values obtained in administrative/financial department and the values of the industrial department exceed the values obtained in the commercial department.

Also with a smaller representation than the other variables described above, there is the variable that describes Relational Capital of the company. There are different perceptions between managers of the three departments, with the value of 4.5 for Administrative/Financial, 3.8 for Commercial and 6.0 for industrial department.

Important to note that all the variables in all departments received positive values, which means that in the perception of managers, all of them are present and form intellectual capital of the company, some more, some with less intensity. The opinion among the managers of the departments is also convergent, since the standard deviation of the variables was low.

Regarding Block II of the questionnaire, which deals with the perception of Knowledge Management practices (KM) and Intellectual Capital Management (ICM), a comparison between the departments is showed in Table V.

All analyzed variables had the level of description less than 7.0, what allows us to infer that there is opportunity to improve both the KM as ICM.

The variable that stood out in the three departments was the Measurement/dissemination of results from various perspectives and the variable that had the lowest score was strategic alliances with other companies.

For document analysis, searches were carried out by words or phrases that referred to intellectual capital. The searches were in public documents available: home page, Social Report and Balance Sheet. The words and phrases found were classified into Human Capital, Organizational Capital and Relational Capital.

Evidences obtained in the company's documents show a predominance of Organizational Capital, followed by the Human Capital and Relational Capital in that order. Therefore, the results obtained from the questionnaires agree the results of the documentary research and it can be concluded that Beta Company's intellectual capital is formed of these elements and in that order of importance.

The formation of Beta Company´s intellectual capital place human capital in second place, behind organizational capital. Additionally, the values obtained in the questionnaires for each variable, especially for Human and Relational Capital are far from the maximum score (10).

TABLE IV. LEVEL OF DESCRIPTION OF INTELLECTUAL CAPITAL VARIABLES

Variable	Administrative/ Financial		Commercial		Industrial	
	Level of Description	Standard Deviation	Level of Description	Standard Deviation	Level of Description	Standard Deviation
1 - Employee knowledge on the job	3.0	0.84	5.6	0.64	6.5	0.47
2 - Competence of employees	3.5	0.82	4.4	0.35	5.5	0.72
3 - Process of ongoing innovation	1.0	0.92	4.4	0.64	6.5	0.80
4 - Creativity and innovation of employees	5.0	0.94	6.3	0.71	7.0	0.68
5 - Infrastructure	6.5	0.67	5.6	0.35	7.3	0.51
6 - Organizational culture	8.5	0.48	6.9	0.52	7.5	0.51
7 - Quality of products	8.5	0.48	6.9	0.74	9.3	0.37
8 - Information systems	7.5	0.53	7.5	0.53	5.8	0.49
9 – Brand	8.0	0.52	3.8	0.71	7.8	0.69
10 – Relational Capital	4.5	0.74	3.8	0.46	6.0	0.70

TABLE V. LEVEL OF DESCRIPTION OF KM AND ICM PRACTICES

Variable	Administrative/ Financial		Commercial		Industrial	
	Level of Description	Standard Deviation	Level of Description	Standard Deviation	Level of Description	Standard Deviation
1 - HR practices focused on KM	4.0	0.63	4.4	0.35	4.8	0.69
2 - Culture focused on innovation	3.0	0.84	5.0	0.53	6.3	0.64
3 - Work of multidisciplinary teams	4.0	0.42	3.1	0.52	4.5	0.72
4 - Measurement / dissemination of results from different perspectives	5.5	0.32	6.3	0.89	6.0	0.77
5 - Strategic alliances with other companies	-0.5	0.88	3.1	0.52	1.3	1.02

Therefore, such variables do not completely describe the company, a fact that contradicts researchers who put the knowledge and intellectual capital as the key asset of an organization [7, 12], but reaffirms the results of Carvalho's research [32] which recognizes the intangibility of resources as a contributing factor to the performance of organizations, however noticeable in a positive and meaningful way in a few sectors of the economy. The fact that the company is a consumer goods industry makes it holds significant amounts of tangible assets (machinery, equipment, buildings, etc.), whose variation [32] is important to explain the performance above the average of Brazilian firms. Therefore, although intangible assets have their level of importance to the organization, tangible assets also play a key role.

Organizational Capital is the institutionalized or explicit knowledge derived from organizational systems [16] and it becomes explicit through KM practices. Only analyzing this context and the fact of Organizational Capital had highlighted, it is suggested that the company adopts KM practices. However, in the responses from the questionnaire Block II is observed that all the variables obtained values below 7.0 with scope to improve to reach the highest score, contradicting this analysis. One explanation for this question is that the company adopts KM and ICM practices, but not in a structured manner. This fact is proved on the interviews with the heads of departments, which will be discussed below.

The variables that highlighted were investigated in detail through interviews, which provided an understanding of their style of management. Table VI summarizes the evidences obtained in the interviews.

TABLE VI. CONCLUSIONS ON THE MANAGEMENT OF INTELLECTUAL CAPITAL HIGHLIGHTS VARIABLE

Variable	Interviewed	Management approach
Quality of products	Quality analyst	Quality System well structured and running with users and flow of information well defined.
Information systems	IT Coordinator	Best Practices are adopted, aware of the importance that the systems have for the company, but there are possibilities for improvement.
Organizational Culture	HR Coordinator	Rules and regulations clearly defined by the Code of Ethics and training, especially for new employees.
Mark	Marketing manager	Own methodology for Brand Management, obtaining information from different information systems of the company and from various perspectives.

It is observed in all interviews that there is the management of the variable investigated and the responsibility for management is the respective department. Therefore, the company is concerned with the management of its intellectual capital, even if there is not a specific formalized structure for this.

Regarding AIS, it is noted that the operation is according to the characteristics identified in the literature review. The presence of an ERP system allows an efficient consolidation of information from other operating systems [23] and the availability of it to other systems or decision-making in three hierarchical levels [26].

It was found that AIS supplies the Financial/Accounting BI systems, Cash Flow, Budget and System for management of tax proceedings, and these systems are used for managerial and strategic purposes. Therefore, Beta Company´s AIS has the purpose of Management or Controllership, which makes it resembles the description of the scope of AMIS defined by Gonçalves and Riccio [5]. It is observed the presence of all AIS modules reported in the literature. Regarding AMIS, performance indicators for strategic control are represented by the Business Intelligence System; the short-term planning is represented by the budget system and cash flow; and the information obtained externally (government websites) correspond to the Environmental Information Systems.

It was also found that AMIS is based on monetary information and is not structured to manage the intangible assets. This is a responsibility for the specific departments, which answer for each asset. This conclusion corresponds to the information obtained in previous interviews and also converges with the question 4, Block II of the questionnaire, pointing to measuring results from various perspectives.

Considering the presented analysis, it notices that even there is not a formal framework for KM and ICM, the company has adopted these practices. This management is conducted by specific departments and not with information generated by AMIS.

As AMIS is widely used by the company, a suggestion would be to insert in it few indicators, which represent intellectual capital variables that describe the company, for disclosure with other monetary information, in order to spread more and attract attention to the management of these variables. This practice would also level the perception of the three departments/areas managers, regardless of familiarity

with the subject, because everyone would have the same information.

Measurement and management of intellectual capital to the company can be achieved through AMIS feeding with the data and information necessary to perform the control and management of these elements [33]. One suggestion for the inclusion of these variables in AMIS is through the method of management and measurement of intellectual capital developed by Lopez-Ruiz and Nevado-Peña [19]. This method becomes suitable for possessing a threefold vision of the company, based on the economic-financial analysis (or accounting) to measure intellectual capital and finally complete with the adoption of business models that enable strategies simulations. The method is based on indicators, which are calculated and made available in the same format as the traditional financial indicators. So it's a method that does not conflict with the traditional AIS, but complements it. In Table VII there is an example with intellectual capital indicators demonstrations.

The choice of indicators must be done in conjunction with the company's managers to identify what is relevant to manage. This was not the object of this research, however, most Beta company managers (58%) has made available to cooperate with further research. It notes that the inclusion of indicators in AMIS is something complementary to the management of intellectual capital that exists in the company and the management by the respective departments is important, should be maintained and improved when necessary.

V. CONCLUSIONS

As you increase awareness of the importance of the intellectual capital of organizations by entrepreneurs, managers, investors, researchers, among others, increases the demand for research to seek ways to capture, measure and report the value and performance of it. This work was aimed to investigate the contributions of accounting as Management Information System in intellectual capital management in an organization.

It is concluded that the general objective was fulfilled because it was found in the investigated organization a widely used AMIS, which conforms to the specifications found in the literature and is able to adapt to receive indicators or variables that measure, in absolute or relative terms, values that enable intellectual capital management. Additionally, it was found that the incorporation of intellectual capital variables in AMIS can be realized by adopting the method proposed by López-Ruiz and Nevado-Peña, using both traditional financial indicators, such as intellectual capital indicators, complementing the existing AMIS.

The research strategy adopted was the single case study, using as data collection tools documentary research, interviews with managers and questionnaires. Individual analysis by department enabled to identify the different perceptions of each department managers, noting convergence on some points, such as forming variable of intellectual capital of the company, and divergence in others (few) points, but that deserve attention. It concludes that the difference of opinion arises from the management and monitoring of some specific intellectual capital variables only by the responsible department, so that the other department are unaware about it. Thus, the existence of Intellectual Capital tracking variables in AMIS enable a single view of all company managers, one possible solution to this problem.

It was also possible to triangulate the data obtained with three instruments of collecting and associates them with the evidence found in the literature. The bibliographical research allowed seeking the formative elements of the Intellectual Capital and the methods of measurement/management existing. The answers from the questionnaires plus document analysis made it possible to raise the set of variables that make up the intellectual capital of the organization. The literature search plus the interview with accounting coordinator allowed analyzing in theory and practicing the principles of operation of AMIS. Finally, the questionnaires plus specific interviews made it possible to diagnose the form of intellectual capital management in the perception of managers of the departments.

Regarding the limitations of the research, because the study was applied to only one organization, it is not possible to generalize the results.

TABLE VII. EXAMPLE OF STATEMENT OF INTELLECTUAL CAPITAL

Human Capital	**2010**	**2011**	**2012**	**2013**	**2014**
Training rate (expenditure on training / number of employees) - $					
Profitability per employee (Income / number of employees) - $					
Promotion rate (number of promotions / number of employees) -%					
Motivation index (through research with employees) -%					
Organizational capital	**2010**	**2011**	**2012**	**2013**	**2014**
Investment in R&D / number of new releases - $					
IT investments / expenses -%					
Scrap index (defective products / total volume) -%					
Relational capital	**2010**	**2011**	**2012**	**2013**	**2014**
Customer satisfaction index (through research) -%					

As a proposal for future studies, it is suggested to continue the study in the investigated organization, raising the informational needs of managers for the construction of indicators to be incorporated in AMIS. It is also suggested to perform the same search in other organizations having the same type of activity (manufacturing of consumer goods) or with different activities, allowing the consolidation of the results or comparisons, in the case of other activities. And one last recommendation is to conduct studies to verify the practical feasibility of using the method proposed by López-Ruiz and Nevado-Peña.

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