

Effects of Intangible Assets of Human Capital on the Performance and Development of Modern Cuban Enterprise

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How to cite this paper: Marsal, N. M. (2020). Effects of Intangible Assets of Human Capital on the Performance and Development of Modern Cuban Enterprise. *Journal of Human Resource and Sustainability Studies*, 8, 185-201.

<https://doi.org/10.4236/jhrss.2020.82011>

Received: May 25, 2020

Accepted: June 26, 2020

Published: June 29, 2020

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Abstract

We study the national and international theoretical models of intangible assets in the modern enterprise and its importance to generate value in the organization based on the premise that if you can't measure intellectual capital you can't manage it which is determine whether intangible assets are adding or destroying value in the organization. An empirical study was conducted at a Cuban financial institution and the results were triangulated. The results of the metrics applied revealed that there is no significant relationship between the economic performance of the bank branch and the perception of the management of intangible assets, the average scores denote low management of intangibles so in the short term they deserve to generate alerts to avoid in the long term contractions inefficiency.

Keywords

Intangible Assets, Tangibles Assets, Economic Performance

1. Introduction

Since 2011, the Cuban business system has been going through a new stage of transformations that, among other purposes, seek to unleash old ties, grant greater powers and achieve more efficiency and organization. Like any change process, it has not been without complexities, successes and misadventures. The government's top direction led to a diagnostic in the main organisms of the state, in order to know the deficiencies, their causes and measures to solve them. Also, make changes that consider organizational transformations to be complex processes and that need to be studied and implemented gradually. (Izquierdo L., 2018).

The institution under study as the governing body of the National Banking System (SBN), has the mission to promote, to the extent of its powers, the stability of the purchasing power of the national currency and contribute to the harmonious development of the economy, as well as to exercise the regulation and supervision of financial institutions, branches and offices of representation of foreign financial institutions authorized to be established in the country, and any other that the laws entrust to it (Decree Law 361/2018, 2018).

In addition, it regulates and supervises the activities of financial intermediation, financial support services, collection services, payment or transport of monetary and securities species, as well as other activities that are related with the financial and exchange rate activity carried out in the national territory.

The institution is implementing a process of reform or improvement of its internal functioning and structure. As a result, the process map, the institution's value chain, was developed and a strategic computerization program was designed for the development and adoption of new information and communications technologies. To develop this reform process, scientific research related to human resources is needed to assess its impact on technology and economic efficiency.

2. Literature Review

The changes that occur in the Cuban socioeconomic model at present have a significant impact on their labor organizations. This new scenario calls for a greater role of executives and workers in the sense of adopting different ways of acting and managing the processes of working life (Casaña, 2015).

According to Borrás (2015):

“This requires promoting an academic model characterized by the investigation of problems in their contexts, the production and transfer of the social value of knowledge”, “... a scientific investigation, technological, humanistic and artistic problems to have a fundamental solution for the development of the country and the region ...” (p. 354).

Intellectual capital is a system of relationships within the organization supported by tools of information technology, knowledge, communications that are essential for the organization to work and that by themselves constitute an asset. (Brookings A., 1997; Lennard, 2019).

The management of intellectual capital (Brookings A., 1997; Stewart, 1998; Osorio, 2003) emerges as part of the advances in science and technology in the field of information technology and communications, giving rise to a new era, the era of knowledge. Intangible assets recreate a broader perspective, since it contemplates the human capital aspect and that of relational capital and structural capital. (Edvinsson, L. & Malone, M. S., 1998; Osorio, 2003). In the three edges we can see the analysis mode by reading intangible assets that add value to the organization (NIC 38, 2014).

The measurement of intangible assets is undoubtedly an opportunity for the

institution, because it allows us to calculate exactly what its true wealth is and what makes the organization to stay and endure. It is a source of attention for making decisions when faced with limitations or restrictions (Goldratt E.M., 1996) that occur in the dynamics of the organization (Flores P., 2001). Within the different intangibles that make up the intellectual capital of an organization, we must first point out the human capital. This can be defined as the set of knowledge, skills, experiences and abilities of the subjects that make up the organization, which are articulated through human and social communication and make up a complex and dynamic interweaving that is the organization (Medina R. K., 2018).

The concepts discussed above have been studied by Cuban labor organizations, and there is a certain familiarity with their impact on the organization. However, the studies carried out do not reach the magnitude necessary to determine the costs they generate, either the expenses incurred when a worker decides to leave or takes with him the investments made in their preparation.

The current perspective puts physical and financial assets at the center of attention, without taking into account that the know-how is owned by the individual and is an intangible asset (Brookings A., 1997), others such as: knowledge, skills (Robbins S., 2009) the motivations (González Serra D., 2012), values (Robbins S., 2009), job skills; and the organizational structures, software, information systems and documents, also make up these intangible assets (Cuesta A., 2014). In order to comply with the changes required by the current situation, it is necessary to have a competent staff capable of taking on the changes required by the environment.

That is why attention to people at work, is an essential aspect to develop labor organizations. In this sense, it is necessary to model change management so that the institution transitions to a scenario that responds to the new demands of the environment (Kaplan & Norton, 2004; Cuesta, 2014). The change of economic paradigm requires adopting a new strategic perspective, where it must identify and manage those resources and capacities that make it sustainable over time. In the knowledge economy, these resources and capacities will be—basically—of an intangible nature, delimiting the potential of the organization (Arias, 2019).

The question that arises is: how to collaborate so that such changes do not impede welfare and human development? The pretense is added that those processes or changes that arise from the implementation of this methodology are in themselves generators of value for the organization.

In the literature consulted we appreciate the need or lack of research in this field that contributes to the development of this topic. The relevant data, scientific articles, journal and revised books, clearly explain this research variable and are consistent in their presumptions. However, we appreciate theory inadequacies that need to be studied and that could facilitate the work of the modern enterprise.

The reliability of Models to measure Intellectual Capital is still insufficient.

Especially Methods based on the VAIC model as they respond to financial reports reporting strategies already implemented, but which does not take into account synergies between different components of the model and that does not analyze the innovation capacity and the relational capital of the company as value generators. These models do not detail the management of intangible assets and this point becomes a limitation that requires study (Moreno G. & Londoño E., 2016).

Cuesta A., 2014 proposes us the possibility of correlated intangible indicators with tangible, especially with the important to show the impact of the former. This gives you positive correlations between the two types of indicators. It is important to recognize that the value of intangible assets is indirect and potential and also depends on the context; they have as fundamental characteristics that are expressed grouped, so their study is more complex (Kaplan & Norton, 2004).

The measurement of intangible assets is not necessarily linked to the traditional measurement of classical physics or positivist research (Cuesta A., 2014). In this case the measurement of intangibles are considered relevant states of non-parametric, especially those referring to the ordinal or Likert type scales and are able to provide the necessary research inferences associated with correlation. Intangible values are often manifested in deterministic processes expressed through mathematical correlations that show the trend of this intangible values (p. 15).

The measurement of intangible assets corresponds to the field of behavioral science so the most taken measurements are nominal and ordinal. The tendency is usually to establish correlations and inferences about their value compared to economic and efficiency indicators. Ordinal scales can be used for the measurement of intangible assets, due to their isomorphic characteristics with respect to the system of arithmetic numbers. In this sense it is not advisable to use parametric tests such as mean and standard deviation (Cuesta A., 2014: p. 17, p. 19).

State the Problem and Hypothesis Setting

All the above is summarized in the following problematic situation: Lack of technical tools that allow knowing the value of psychosocial assets that generate value in the organization. The application of the Integrated Human Capital Management Systems that is developed has not been able to calculate the labor costs. Failure to recognize the existence of intangible assets prevents analysis of efficiencies that contain variables such as: motivation index, leadership index, training time, % worker retention and % turnover, labor climate index, % of dedicated people to R & D, satisfaction indexes, degree of alignment to the culture of the organization (%), and communication, among others. This analysis suggests that such tools are not being used to predict the future development of the organization.

This problem has a complex nature and although there are objective conditions that favor the implementation of the management of intangible assets in

the financial institution, learning of human talent and knowledge management practices is still insufficient (Kaplan & Norton, 2004). There is a lack of methodologies, models, own programs that facilitate the management of intangible assets, their characterization and current status.

Thus, an inadequate measurement of intangibles (due to the use of classical valuation methods) can lead to an inefficient allocation of material, financial and human resources. It is then necessary to develop intangible asset management methodologies that allow the use of information and knowledge of people, experiences, research results and other sources of information and knowledge, in order to achieve superior results (Lennard A., 2019).

The considerations referred to above demand an investigation that solves the following scientific problem: Lack of management of psychosocial intangible assets that prevents having information about those that add value to the organization and that are important to manage them in the organization work. That has proven to be valid and effective in the field of labor organizations. From which the research question emerges: How to management intangible assets of the human capital dimension that allows obtaining superior results.

Taking into account international experiences, empirical research focuses on the diagnosis of the management of the intangible human capital in a Cuban financial institution.

H.1. The management of human capital in the financial value under study is insufficient.

H 1.1. The measurement and management of human capital variables in the financial value under study is not insufficient.

3. Research Methods

Non-experimental, descriptive research is carried out. The universe to determine the sample size was composed of all the organizational units of the institution under study. The population was composed of all those workers of the institution who have more than five years of tenure in the institution and who voluntarily agreed to participate in this research, and intensified and opinion sampling is used.

The Sample Inclusion Criteria analyzed are: Being a worker of the institution, having more than five years of work. The Selected Master Exclusion Criteria is: be a trainee and a worker with less than five years of work at the institution. The Exit Criteria are: all workers who did not agree to participate in this investigation in one way or another.

To calculate the size of the sample analyzes the total of workers 525 and the workers who do not meet the requirement of sample inclusion were discounted so we are left with a population of 310 workers. The master selection process was defined as follows:

Calculation of sample size:

$$P = 99\%$$

$$E = 0.01$$

$$N = 223$$

$$S^2 = p(1-p) = 0.9(1-0.9) = 0.09$$

$$V^2 = e^2 = (0.02)^2 = 0.0004$$

$$N' = \frac{0.09}{0.0001} = 900$$

$$n = n' = \frac{900}{1 + n'/N} = \frac{900}{1 + (900/223)} = \frac{900}{1 + 4.035} = \frac{900}{5.035} = 178$$

N : population size

x : subset of the population

S : Standard error, estimated by us

V^2 : population variance, its definition (Se) squared of the standard error

The final sample used was 150 because 18 workers did not decide to participate in this investigation.

The research methodology used for the determination of specific hypothesis and sub hypotheses was realized using the scientific inquiry scheme commonly used by authors studying intellectual capital.

Research hypothesis was assessed through a questionnaire prepared for this purpose, using a non-probabilistic sampling, to 150 workers of the financial institution, the expert group criteria of banking leaders were analyzed and customer interviews were conducted. The procedure used in three-stage: character of the institution, creation of questionnaire and selection of experts and customer for data retention and finally evaluation of the results. The use of the Likert scale allowed obtaining average ranges of perceptions of human capital assets, which were evaluated using the questionnaire questions (Sampieri R., 2014).

A questionnaire was designed with as reference the variables of intangible human capital assets defined by Borrás F. & Campos L. (2018), in its Model of Intellectual Capital made for Cuban companies, in addition to its preparation, the criteria of the questions of the Organizational Diagnostic Questionnaire, prepared by the Professor of Havana Irene Smith, and other collaborators in 1960, and modified by Adalberto Avila in 2005 (Smith I. & Avila A., 2005; Avila A., 2013), which evaluates the perceptions that subjects have about intangible assets of human capital of the organization. Both reference instruments in the construction of the questionnaire have previous validity studies, which is a good source for the design.

For the preparation of the questionnaire, the variables that are intended to be measured or observed were listed, an operational definition of the variables was made, the instruments (already developed) that will be adapted to the context of the research to be able to make the comparison between them were chosen. A universe of possible items was developed for each variable. And finally, the measurement level of each item, and that of the variables, as well as their coding, was indicated.

The prepared questionnaire evaluates workers' creativity variables: Satisfaction and motivation, moral and material stimulation, innovation capability, job qualification, occupational health and safety conditions, job stability, teamwork, across 25 interrogations on a Likert scale of 1 to 5. The anchors range from totally disagree to total agreement.

The questionnaire results in an average of the summation of the scores offered by each subject in each variable in a set range, where 1 to 2 is considered very unfavorable management of human capital, from 2 to 3 unfavorable, from 3 to 4 favorable and from 4 to 5 very favorable. Therefore, it is considered a positive perception towards human capital management if the scores are greater than the value 4. In this way it can be known whether or not the management of human capital is favorable for the development of the institution.

The questionnaire was submitted to the experts seeking the validity of the contents of the items and variables; at the same time to make a first application looking for the reliability of the first version of the questionnaire. The result of the calculation of the validity of content allowed its adjustment and modification in its first revision.

The evaluation results of the reliability of the questionnaire indicated an alpha coefficient of Cronbach of 0.70 which shows high internal consistency inter items and reliability. It was found that the questions measure what is intended so it can be used in research.

The experts established an order of influence of the variables that make up the intangible assets analyzed giving it a value of 1 to 5. Then the matrix of weights was formed. Using the Kendall W status, and the goodness of the W coefficient that allows obtaining the level of concordance of the judges between 0 and 1. A value of 1 means a total criterion match and the value 0 means a total disagreement.

After summarizing the answers and calculating the average value of the answers given in each questionnaire form, we proceed to determine the hypothesis test using Spearman's Rho coefficient for non-normal data, as the responses in a questionnaire are not related to the average values of an institution's efficiency assessment conducted by the experts, so to contrast the hypotheses a coefficient correlation of 0.01 is obtained that demonstrates a significant correlation according to the estimates of the scale. In addition, it worked with a significance level of 0.05%, the null hypothesis H1 is rejected which explains that the management and measurement of capital is no insufficient, so we can conclude that it is possible to work with the hypothesis that if there is a relationship between variables and that the management of human capital in the generation of value is insufficient.

To establish inferences about the value of economic efficiency indicators, the behavior of their value in several consecutive years was taken as references to growth or decrease. For the analysis of tangible data, we use the institution's five-year values as a reference and analyze its behavior. It is necessary to specify

that the data displayed is numeric approximations to the actual data. Specifically, we analyze the economic efficiency indicators that are used to assess efficiency from accounting data. The indicators used for analysis are: Income, Expenses, Utility, Wage fund, Average number of workers, Average salary, Material expenses, Services purchased, Added value, Productivity, Gross wage/value-added expense.

This determined to what extent: favorable or unfavorable managed human capital assets influence tangible indicators. It is important to point out that we are working with the perceptions of the subjects, so we are making mathematical inferences and approaches to reality. To this end, the correlation analysis technique was used and to understand the influences between intangible assets on tangible assets.

4. Discussion

The analysis of the influence of intangible assets of human capital on the generation of value is based on the presumption that the asset creates value only when the results are tangible, which is why it is necessary to use indices that allow measure whether these assets are creating value. The above allows subsequently its management, as long as it is known and measured can be managed.

Following the methodology explained, we inform and analyze the estimates of the data that reveal the relationship of the variables.

In relation to the findings of the investigation are consistent with the other empirical studies analyzed. We found theoretic approaches that confirming the relevance of the use of mean analysis for this type of study. **Table 1** summarizes the average values of our main variables. It should be noted that the data are characterized by their heterogeneity in a significant way, and correspond to differences between the organizational units that make up the sample.

The following (**Table 2**) will describe the findings related to the management of intangible assets of human capital.

The least-scored human capital indexes are the job satisfaction and motivation of workers. Previous statement sits that an inadequate management of these indicators succeeds. The assessed indices of regular or poorly were moral and material stimulation, job stability, and worker creativity.

The indices job qualification occupational health and safety conditions and teamwork achieved higher scores, indicating that leaders perform better management of these indicators and are considered as sources of worker satisfaction.

Results of the triangulation of techniques:

Human capital behavior strengths

- The interpersonal and intergroup relationships that are established are harmonious, based on collaboration rather than competition.
- Workers perceive that organizational objectives and roles are clearly defined as well as strategies for achieving them.
- Members of this organization value head-subordinate relationships positively.

- The perception of management is also based on elements that speak in favor of good professional preparation and the skills necessary for the exercise of administrative functions.
- The functioning of the organization is perceived as efficient, teamwork is encouraged and its development prospects are favorable.
- Workers are satisfied with the Human Resources Policy carried out by the organization and the quality of it.
- There is a sense of belonging to the group, backed by satisfaction with the center.
- High satisfaction with the content and working conditions, as well as their own job performance, is noted.

Table 1. Descriptive statistics: media intangible assets.

	<i>N</i>	Minimum	Maxim	Media	Dev. Deviation
creativity of workers	150	1.00	5.00	3.2600	0.76219
satisfaction and motivations workers	150	3.00	5.00	3.4400	0.52110
moral and material stimulations	150	1.00	5.00	3.3033	0.78933
innovation capability of workers	150	2.00	5.00	3.4533	0.81213
job qualifications of workers	150	2.00	5.00	4.3267	0.81879
occupational health and safety conditions	150	2.00	5.00	3.6200	0.83159
job stability	150	1.00	5.00	3.5133	0.76269
team work	150	2.00	5.00	3.7467	0.73079
N valid (per list)	150				

Table 2. Results scores of human capital indices.

Measurement of human capital indices, expressed in average values on the Likert scale			
human capital indices	average scale Likert workers	average scale expert group	average scale customer interviews
workers' creativity	3.2	3.3	3.4
satisfaction and motivation	3	2.9	3.2
moral and material stimulation	3.3	3.4	3.4
innovation capability	3.4	3.6	3.2
job qualification	4.3	4.5	4.2
occupational health and safety conditions	3.6	3.7	3.5
job stability	3.5	3.6	3.4
teamwork	3.7	3.9	3.6

Human capital behavior weaknesses

- Workers are more in need of participation and influence in the functioning of their jobs and in the organization of organizational activities.
- The need for greater autonomy and spaces for creativity when carrying out its work is noted.
- There is no correspondence between the responsibility and complexity of the work that is done with what is perceived as wages.
- Dissatisfaction with the stimulation system, for the need to better combine moral and material stimulation.
- Workers appreciate that formal and informal communication channels are not fully effective.

The data collected in the research show that there is the management of intangible assets of human capital in the financial institution is not enough, which shows a goal-oriented management style rather than people. Another important aspect is that motivation management and job satisfaction are not managed positively, which can influence long-term outcomes. However, the management of professional improvement is given great value.

It is clear that the management system must pay more attention to low-scoring indices because although short-term economic results show good benefits, the institution has an internal weakness that deserves to be studied.

Comparison of gross value-added wage expenditure of the Cuban National Banking System.

The values of the financial institution are displayed in relation to the gross value added salary spending indicator in a given period with respect to the financial institutions that make up the National Banking System. Note that the institution studied has the lowest index relative to the rest, which while smaller is the highest positive correlation value shows and evidences financial growth in this period.

When we compare of the main indicators of economic efficiency of the institution over a period of five years, we appreciate a decrease in some indicators. This may be related to the management of intangible assets. **Table 3** shows that it is the institution under study that generates the most wealth of the Cuban national banking system.

Comparing the economic efficiency indicators between five years shows that efficiency rates were declining by the end of the last year (**Table 4**).

There is a decrease in productivity and gross value added and an increase in the average number of workers, as well as in the wage fund in the last year analyzed. It is important to evaluate other external factors that could affect these results. The comparison between years is a reflection of the management strategies adopted, where it is appreciated that for four years the institution maintained a growth in its indicators of economic efficiency.

The causes that led to this decline may have multiple triggers making it a multi-causal phenomenon and requires a comprehensive analysis across all dimensions

Table 3. Final gross value added.

Institution	Wage spending/gross value added
Institution studied (A)	0.010
Institution1	0.081
Institution2	0.3835
Institution 3	0.1362
Institution 4	0.0432
Institution 5	0.0116
Institution 6	0.0906
Institution 7	0.0569
Institution 8	0.1173
Institution 9	0.1642
Institution 10	0.4205
Institution 11	0.0505
Institution 12	0.0423
Institution 13	0.12

Table 4. Economic efficiency analysis.

INDICATORS	Year 1	Year 2	Year 3	Year 4	Year 5
Income	303,988.6	309,567.7	288,759.3	275,321.6	230,987.4
Expenses	54,445.9	53,897.5	55,477.4	43,403	35,205.1
Utility	249,542.7	255,670.2	233,281.9	231,918.6	195,782.3
Salary Fund	2596.07	2648.94	2675.50	2737.96	3431.43
Average number of workers	415	425	427	438	537
Average salary	521.3	519.4	522.15	520.92	532.5
Material expenses	540.6	546.2	545.5	861.8	1027.0
Services purchased	1765.2	1877.9	1964	1363	1376.3
Value added	301,682.8	307,143.6	286,249.8	273,096.8	228,584.1
Productivity	726.95	722.69	670.37	623.51	425.67
Wage spending/gross value added	0.0086	0.0086	0.0093	0.0100	0.0150

of the organization, including concomitant external factors. It is important to assess the regulatory role of the financial institution in the development of the economy which differs from the business sector, where productivity growth is a true indicator of efficiency.

In this case it is taken into account but is not compatible with its nature, so this variation can be considered normal. It is also appreciated that the institution, despite having a slight decline at the end of the fifth year analyzed, is not destroying added economic value of its main assets and indicators but shows stability over time. In addition, other indicators such as income, productivity, do not deteriorate, although if you see a decrease in the indexes in the last year.

This institution measures their efficiency by meeting work objectives, which analyses indices such as inflation, growth in the amount of money outstanding: monetary stability, interbank market behavior, and monetary and banking supervision policies, so economic efficiency indexes do not provide a real means of management. It is therefore not possible to assert the direct relationship between the assessments of human capital indices carried out by subjects and experts with respect to the efficiency results of the institution. This is because it is not possible to establish associations between the results of the questionnaire with the accounting results of the institution, due to the contradictory nature of the numbers because they respond at different scales.

Since it is not possible to directly relate a qualitative variable with a quantitative one we use the result of the questionnaire and the evaluation of experts to check the relationship and influence that intangible assets carry out on tangible ones. The analysis of correspondence between the management of intangible assets and tangible assets obtained demonstrated the degree of influence that intangible assets have on tangible assets.

Once the number one step related to the diagnosis of human capital management, as well as the assessment of the behavior of the tangible assets of the organization, it is necessary to analyze in the second step the correlation of the variables of the investigation and determine to what extent the intangible assets influence the tangible ones. Taking into consideration the average values of the instruments used, these were placed in the SPSS program using an estimated standard deviation of 0.05 and an over-zero point of inertia for this purpose.

Taking as a reference value of 1 to mean little management of human capital and 5 very high management of human capital in these values of scale. It is also defined for the evaluation to which the extent to which tangible assets are influenced by intangibles the scale of 1 to 3 where 1 means low influence and 3 high influence.

In this way through the analysis of correspondence we obtained the following results in **Table 5**.

Table 5. Correspondences table.

AI (Intangibles Assets)	AT (Tangibles Assets)					
	Income	Expenses	Utility	Average salary	Material expenses	Active margin
workers' creativity	0	0	0	0	0	0
satisfaction and motivation	0	0	0	0	0	0
moral and material stimulation	0	10	41	11	0	62
innovation capability	5	15	43	21	4	88
job qualification	0	0	0	0	0	0
active margin	5	25	84	32	4	150

The correspondence analysis in **Table 4** is indicating that the intangible assets that most correspond to tangible assets are moral and material stimulation and innovation capability and these assets in turn are being related to income, expenses utility salary average. The table shows us the times the subjects established association between the two types of assets. In addition, we can see that in the rest of the assets no direct correspondences were established when we analyze all the variables (see **Figure 1**).

Related to this results we can see that in **Table 4** at the end of the fifth year studied, there is an increase in the average wage paid to workers, an increase in the services purchased as well as the material expenses. Although we cannot establish direct relationships, it is valid to indicate that the variable moral and material stimulation could be influenced by this increase in numbers, by expressing itself in the form of positive mental representations towards this aspect.

We obtained that in the intangible asset variable the distance of the most significant point of inertia 0.12 was observed in the “unfavorable with element favorable” category of human capital management, which is consistent with the results obtained in **Table 1**, where the results of the three sources were triangular. In the tangible active variable, we find that the distance from the point of reflex inertia greater significance on the category medium and low influence of intangible assets on tangible ones obtaining the same value of 0.50 (see **Figure 2**).

The total correspondence analysis between the two variables found that the moral assets and material stimulation and innovation capability exert a median influence on the tangible assets income, expenses utility salary average. We also obtained, that moral and material stimulation exerts an average influence on income, expenses and profits and salary average.

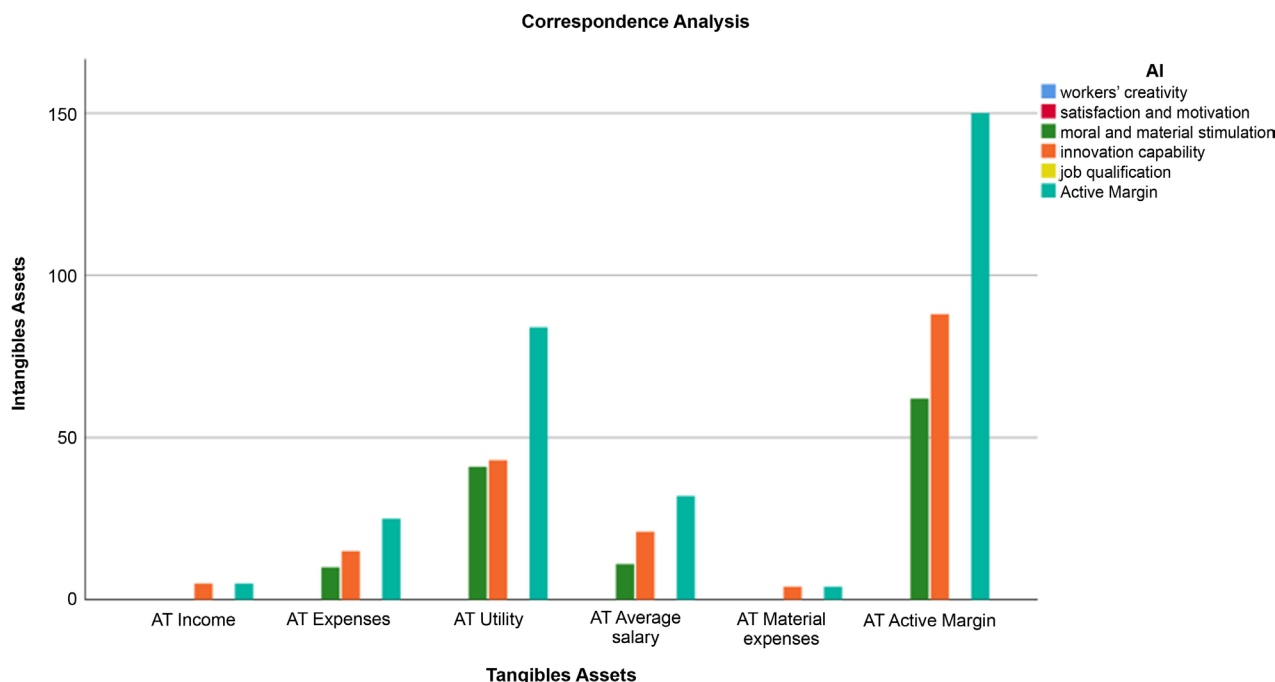


Figure 1. Analysis of correspondence between intangible and tangible assets.

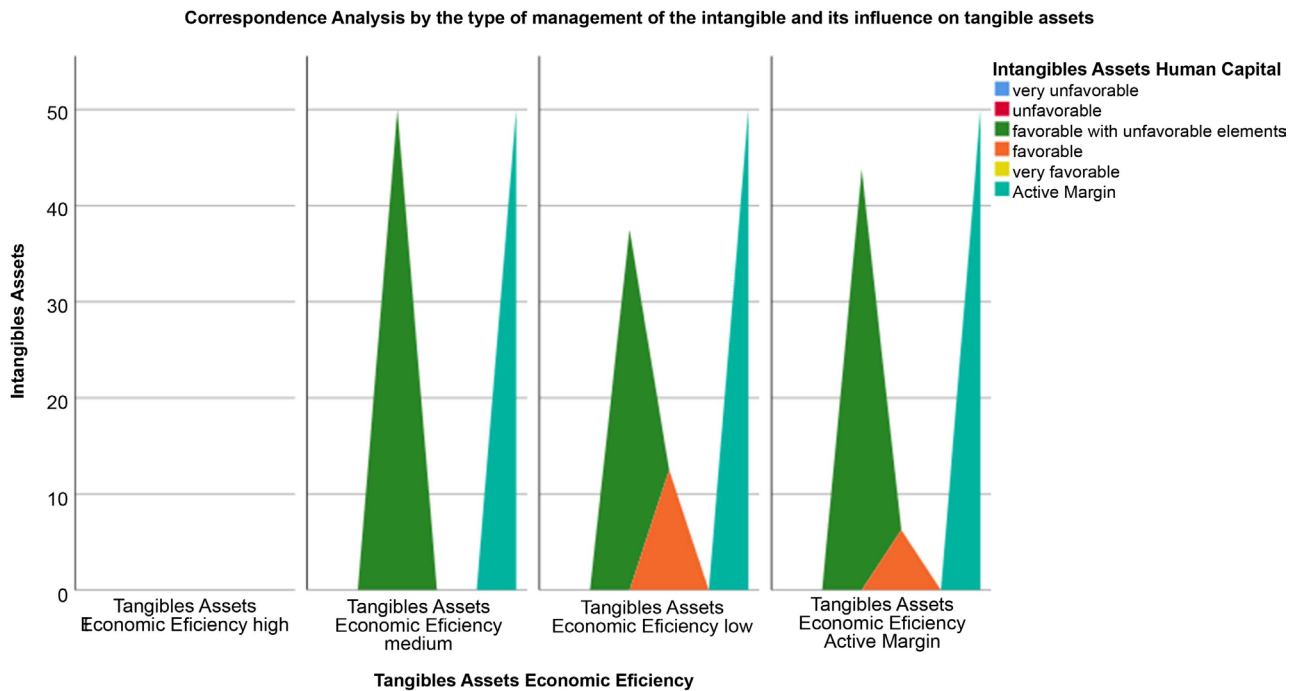


Figure 2. Analysis of correspondence between intangible and tangible assets by levels of management and influence.

The above could be associated with the concept of innovation capable coming from a psychological construction of the subject from a process of creation and that has a material result that is the product of innovation.

In other words, the process of innovation in the organization brings incorporated from the collective presentations a tangible planning or material that is collected in the investment of equipment and inputs for the development of such processes of innovation. The previous idea of both assets could condition this result. Moral and material stimulation and innovation also have a direct mental representation with the salary received.

The active satisfaction and motivation present an unfavorable management although favorable elements coexist and have a medium influence with the assets income, profits, value added and productivity, with the rest of tangible assets the influence is low. The job qualification asset is managed favorably in the organization and a medium influence was found on assets, income, utilities, average salary, value added, Wage spending/gross value added and productivity.

The tangible indicators studied such as: Material expenses, services purchased, Value added, Productivity, Wage Expense/Gross Value Added, presented a low correspondence with intangible assets by not obtaining high scores in the analysis of general correspondence being thus different in the individual analysis for each of the intangible and tangible assets. This could be generated because tangible assets have an abstract conceptual definition and can cause difficulties in establishing a direct association with intangible assets.

The same is true of intangible assets that show favorable management in the organization (see **Table 1**), such as health and safety conditions at work, job stability and teamwork that were not significantly related in correspondence analysis,

as assets that directly influence the tangible assets studied.

Intangible assets that have a more favorable management health and safety conditions at work, job stability and teamwork (see **Table 2**), however there was no direct relationship of influence with the tangible assets studied. Correspondence analysis found a significant relationship between intangible assets: capacity for innovation and moral and material stimulation, with tangible assets: income, expenses, utilities and average wages. It was found that the management of these intangible assets is not optimal in the organization and that they exert an average influence on the tangible assets studied.

5. Conclusion

There is a broad theoretical-conceptual basis on the measurement and management of intangible human capital, which has been enriched by Cuban empirical studies in which international models are interrelated, establishing alliances in the way of analyzing the influence of intangible assets and the value they bring to the institution.

It shows the need to measure and manage intangible assets and minimize the negative effects they can have in the long term. By obtaining the average value created by intangibles allows the company to raise economic efficiency rates.

Low investment in intangible indicators of human capital is evident as the perception of workers in showing little or no management. It is important that the management of variables, indicators, measurement criteria and intangible asset tools is based on models validated by international practice.

No direct link was found between the results of the management of intangible human capital assets with respect to the economic efficiency results of the institution under study. It is necessary to measure the efficiency rates of human capital that are influencing the generation of value, so that if we can measure it we can better manage it, or if intangible assets are destroying value in the institution.

There was a decrease in the institution's economic efficiency indicators at the end of the last year analyzed. The analysis of us indicators shows that it is not destroying added economic value, but it is not possible to make direct inferences about its relationship with the management of the intangible, for them it is necessary to establish direct correlations.

Due to the nature of the institution that measures its efficiency management through the fulfillment of policy objectives and not by the traditional indicators of the Cuban business system it is not feasible to establish direct relationship between the economic efficiency indexes and the management of intangible assets, it is necessary to calculate the costs of investment in intangible assets and their long-term effect.

Correspondence analysis found a significant relationship between intangible assets: capacity for innovation and moral and material stimulation by exerting an average influence on tangible assets: income, expenses, utilities, and average wages. While a median influence is recognized, these intangibles are shown to have failed to reach satisfactory levels.

The rates of human capital that have low management are job satisfaction and motivation. Also, moral and material stimulation, job stability and creativity of workers. Job qualification is the most attention of leaders, and shows a very favorable management. In general, the management of intangible assets in the institution studied it's not optimal. Human capital policies that act directly on these intangible assets need to be adopted.

Final Considerations and Recommendations for Future Studies

The findings of the study confirm the need to design methodologies and procedures that help increase efficiency in the management of intangible human capital assets in the organization.

The difficulty of the study focuses on the casuistic nature of data when measuring intangible assets in their direct relationship with certain tangible assets, as they depend on the context in which they are developed and both correspond to different measurement systems, making it difficult to establish a direct relationship. That is why comparative studies are required, as well as the application of interdependence matrices to deepen the direct relationships between the two tangible and intangible assets. A multiple correspondence analysis can also be used for all the variables studied.

For future studies, indices can be calculated for the analysis of the dynamics of labor productivity and the use of working hours, which allow to obtain inferences on the relationships between tangible and intangible assets. Such intangible assets that have a direct expression of the worker offer a greater significant relationship due to the nature of the number and the source of the data.

General coefficients or indices can be determined to allow organizations to directly manage in their strategic intangible human capital assets that can be triangulated with the results of questionnaires and expert groups.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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