KNOWLEDGE MANAGEMENT IN ORGANIZATIONS: AN ANALYSIS OF INVESTMENT IN INTANGIBLE ASSETS IN LARGEST BRAZILIAN COMPANIES

GESTÃO DO CONHECIMENTO NAS ORGANIZAÇÕES: UMA ANÁLISE DO INVESTIMENTO EM ATIVOS INTANGÍVEIS NAS MAIORES EMPRESAS BRASILEIRAS

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Abstract

Organizational structures evolved with the advent of new technologies. Transactions that used to come from the simple exchange of goods known as barter now demand a totally interconnected structure in which information is capable of guaranteeing a strategic position for companies. In this context, the intangible asset arises, that is, intangible assets capable to make a difference in the economic development in companies. Companies can now take this information to the financial statements. In view of the above, the present study sought to answer the following question: do the companies with the largest assets listed on the Brazilian stock exchange (B3) in 2017 have the largest investment in intangible assets? The survey is classified as a descriptive, survey, and predominantly quantitative, through the collection of information present in the financial statements of the companies listed in B3. The study obtained 439 valid statements of the 444 possible so that it was possible to verify, with the use of statistical tools, that there is still no more rigorous classification, by allocating most of the information in a more generic and broader account. In a second moment, the study responds to the general objective, with the aid of a proposed multiple regression model, concluding that the total invested in assets by the companies reflects the investment in intangible assets and is related to the value of Total Revenue.

Keywords: Information science. Intangible assets. Innovation. Technology.

Resumo

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As estruturas organizacionais evoluíram com o advento das novas tecnologias. Transações que antes eram oriundas da simples troca de mercadorias conhecida como escambo, hoje demandam uma estrutura totalmente interligada, na qual as informações são capazes de garantir uma posição estratégica para as empresas. Nesse contexto, surge o ativo intangível, isto é, bens incorpóreos capazes de fazer a diferença no desenvolvimento econômico nas empresas. Atualmente, as empresas podem levar essa informação para as demonstrações financeiras. Diante do exposto, o presente estudo buscou responder a seguinte indagação: as empresas com maiores ativos, listadas na bolsa de valores brasileira (B3), em 2017, têm o maior investimento em ativo intangível? A pesquisa é classificada como descritiva, de levantamento e predominantemente quantitativa, por meio de coleta de informações presentes nas demonstrações financeiras das empresas listadas na B3.O estudo obteve 439 demonstrações válidas das 444 possíveis, de modo que foi possível verificar, com o uso de ferramentas estatísticas, que ainda não existe um maior rigor na classificação, alocando-se a maioria das informações em uma conta mais genérica e ampla. Em um segundo momento, o estudo responde ao objetivo geral, com o auxílio de um modelo proposto de regressão múltipla, concluindo que o total investido em ativos por parte das empresas reflete o investimento em ativos intangíveis e tem relação com o valor da Receita Total.

Palavras-chave: Ciência da informação. Ativos intangíveis. Inovação. Tecnologia.

Introduction

In an economy in which the only certainty is uncertainty, the right source of lasting competitive advantage is knowledge. (TAKEUCHI; NONAKA, 2008). Currently, the main attributes needed in any organization are quality, productivity, and competitiveness. These are the three concepts that signal the current challenges of companies, concepts that in recent years have become the trilogy of business success. (REZENDE, 2002). Stand out in a highly competitive scenario, when changes are constant, is a process that requires great adaptability for the organizations, regardless of their physical structure.

The creation of strategies for any line of business is always carried out based on accessible information, in order words, no strategy can be superior to information that has been derived. In this sense, competitive intelligence would be to evaluate the competitive scenario and the context in which society is inserted, and not only the market environment. (REZENDE, 2002). Sometimes the challenges are those of yesterday, presented in a new context. (TEECE, 1998).

In order to this adaptation occurs, it is necessary, initially, to seek to understand the reflexes of the adoption or not of some practices in the business structure, and how its use will impact internally.

Knowledge, competence and related intangibles have emerged as the main drivers of competitive advantage in developed nations. This is not only due to the importance of knowledge itself, but due to the rapid expansion of the markets for goods and variables, which makes intangible assets the main basis for competitive differentiation in many sectors. (TEECE, 1998).

Sustainable competitive advantage results in having relevant differential capabilities. The raw material for these capacity differentials is intangible resources that range from patents and licenses to reputation and know-how. Intellectual property is an aspect of property rights that increases the importance of know-how assets (Hall, 1992).

Knowledge resources are often inherently difficult to copy. In addition, like physical assets, some known assets enjoy protection against theft, according to the intellectual property laws of each nation-state. In advanced countries, these laws generally include patents, trademarks, trade secrets, and copyrights. (TEECE, 1998).

Intangible assets rarely directly affect financial performance. (KAPLAN; NORTON, 2004). However, its composition is directly linked to the organizations' financial interests.

In order to demonstrate the new equity structure of companies marked by the relevance of intangible assets, in the accounting context, the mandatory registration of these intangible assets in the Balance Sheet of Brazilian companies was established as of the enactment of Brazilian Law No. 11,638 / 2007, which made it mandatory the introduction of intangible assets in non-current assets. (MIRANDA et al., 2014).

Large Brazilian companies that have shares traded on the Brazilian stock exchange (B3), must comply with this structure, aiming to provide greater information transparency to interested people.

Before this context, the present research had as the main goal, evaluating the Intangible Assets and innovation strategies in organizations, answering the following question: Do the companies with the greatest assets, listed B3 in 2017 have the largest investment in intangible assets?

The study of the topic is justified due to the importance of understanding and discussion of this research object by professionals working in information science and related areas, besides, this topic is a point of intersection with several other areas of knowledge. Thus, it becomes relevant seeking to understand its composition and strategic power, both for managers and academics, who may see in this study the possibility of expanding or directing the study.

Theoretical framework

Knowledge

Why do organizations process information? In Daft and Lengel's study (1986), the authors attribute this answer linked to existing research, to the main characteristic of the interest of these large companies in reducing uncertainty and ambiguity, being the first to attribute the absence of information. For researchers, as the level of knowledge increases uncertainty decreases. The equivocality for scholars is linked to ambiguity or the existence of multiple and conflicting interpretations about an organizational situation. In short, high equivocality means confusion and a lack of understanding.

The authors attribute technology, interdepartmental mental relations, and the environment as the main sources for the generation and reduction of these uncertainties and equivocalities, as summarized in chart 1.

Chart 1: Main sources of uncertainty and equivocation.

Sources	Characteristics
Technology	The informational need introduced by new technologies or the absence of some contributes to the generation of equivocity.
Interdepartamental relations	Some departments work independently, while other departments need to continually adjust to each other; Interdependence increases uncertainty because the action of one department can unexpectedly force adaptation by other departments in the production chain. Differentiation is associated with reduced equivocity and interdependence with uncertainty (LENGEL; DAFT, 1984).
Environment	The environment is an important factor in the organizational structure and internal processes. Misunderstanding is related to the ability to analyze cause and effect relationships in the external environment.

Source: Adapted from Daft e Lengel(1986).

Transforming knowledge into a source of wealth for an organization, producing high financial returns demands an understanding of knowledge. However, what is knowledge?

Teece (1998) highlights, in his study, that knowledge can be evaluated in various ways within an organization. Tacit knowledge is that which is difficult to understand in a meaningful and complete way beyond the individual, being expensive and difficult to transmit. There is a direct relationship between encoding this tacit knowledge and being able to transfer it, and therefore the more encoded a knowledge is, the more easily it will be able to be transferred and may generate financial returns for an organization.

The transmission of codified knowledge does not necessarily require face-to-face contact and can often be performed largely by impersonal means, such as when a computer "talks" to another, or

when a technical manual is passed from one individual to another. Messages are better structured and less ambiguous if they can be transferred in an encrypted form. (TEECE, 1998).

Often what needs to be done to transmit this tacit knowledge, to make it explicit, is only to identify it and create an efficient transmission mechanism. Slettli and Singhal (2017) in a study that deals with what they call positive deviation as a knowledge management practice, in 1990 sought to identify best practices in observation present in a small group that lived in a village and had positive cases of eradication child malnutrition and transforms this information in a structured and disseminated way to a larger group of beneficiaries, in this case, Vietnam.

Those in charge of proposing a solution to this problem initially had to identify what the authors called a positive deviation, which is, to verify if there was a well-nourished child who was inserted in this less favored population. In the face of this positive response, they went to check, on a daily basis, which procedures could justify these families having children who were not included in this context of high malnutrition.

After monitoring, it was identified that the families of these children collected tiny shrimp and crabs from rice fields, vegetables from sweet potato plants available to the entire Vietnamese population, and inserted these foods into these child's diets. After identifying this information, it was only necessary to create a communication and training mechanism so that these practices were inserted into the population's routine. During this time, this information was disseminated throughout the national territory, reducing child malnutrition to low levels.

In the present situation in this study, only a transmission of knowledge occurred to a wider range of users who made good use of this knowledge.

In organizations and in the society in general, there is a need to always have this informational process in order to improve and facilitate some decision-making, these transmissions are often directly linked to the insertion of some new technological artifact.

These technology transfers are directly linked to the competitive advantages of knowledge management. The cultural differential applies to the organization as a whole. The habits, attitudes, beliefs, and values that surround the individuals and groups that make up the organization are incorporated. When the organization's culture results, for instance, in designing high-quality standards, the ability to react to the challenge, the ability to change, the ability to put the customer first, among others, then that culture is a contributor to competitive advantage. (HALL, 1992).

During the trajectory of organizations, they have incorporated, in their structures, different professionals, whose performance profiles depend directly on the use and interpretation of information. These are the agents of knowledge and information, each with their specific characteristics in the processing of information within the organization. (REZENDE, 2002). These characteristics are presented in chart 2, with details of the role of each agent.

Chart 2: Characteristics of the knowledge agent in organizations Agents

Agents	Characteristics
Criatives	These employees use the information to solve the organizations' demands, or serve as an input that will trigger innovations and contribute to providing competitive advantage in organizations.
Interpreters	These professionals seek to understand the context in which organizations are inserted, using the available information as a support tool in guiding them to identify new opportunities for action and the generation of new technologies.
Intermediaries	These agents are in charge of intermediating access to information. Before, this function was attributed almost exclusively to librarians, but today the profile is different. Among the duties of this agent are the identification and interpretation of the information sources, carrying out all the processes to make knowledge agents available.
Knowledge managers	It is a new possibility of an agent inserted in the context of organizations, whose purpose is related to the administration of the intellectual capital available in the organization, also called business IQ.

Sources: Elaborated based on Rezende(2002).

Knowledge management is a fairly new area of study, which makes use of models, concepts, techniques, and methods developed by other disciplines. This interrelationship is evident when studying the area of knowledge. (MAGNANI et al., 2010). To efficiently manage the information obtained and the knowledge originated from the innovation processes that organizations go through becomes an important strategic differential. In this context, companies currently have, in their staff, not only technical specialists but also professionals who also work with creative information, contributing to the emergence of new knowledge agents. (REZENDE, 2002).

Technology and innovation applied to intangible assets

The ability of large organizations to innovate and generate new products contributes to the expansion of existing markets and the emergence of others. The competitive advantages arising from these practices provide the outline of the innovation-based economy. This new conception that information is a resource that will be managed according to the interests of the organization to which it is linked, which is now widespread in the literature that deals with information management and resource management, and is widely accepted. (EATON; BAWDEN, 1991; MAGNANI et al., 2010).

In the past, a view was spread that organizations were an aggregate of resources brought together in order to contribute to the generation of products and the provision of services.

In contemporary organizations, knowledge has value insofar as it is possible to transform it into products and services. Knowledge is seen as something that adds value, as it gets involved, especially through social networks, in organizations' life. Today, new technologies, increasingly available to a wider range of users, contribute to reducing the differential gap between organizations. Thus, the difference is no longer the tangible assets, such as machines and equipment, but the union of knowledge and skills, the so-called intangible assets, the tacit or explicit knowledge that contributes to the optimization of the generation of profits for the organization. (REZENDE; S.A., 2002; MAGNANI et al., 2010).

Measuring the value of intangible assets is the Holy Grail of accounting. Employee skills, IT systems, and organizational cultures are worth far more to many companies than their tangible assets. Unlike financial and physical assets, intangible assets are difficult to imitate by competitors, making them a powerful source of sustainable competitive advantage. If managers could find a way to estimate the value of their intangible assets, they could measure and manage their company's competitive position much more easily and accurately. (KAPLAN; NORTON, 2004).
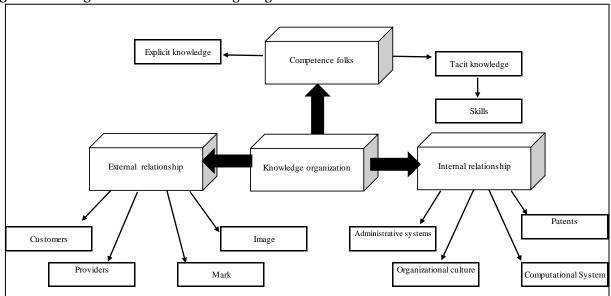
Figure 1: Intangible assets of knowledge organizations.

Sources: Elaborated based on Magnani(2004).

Accounting is seeking to create mechanisms to maintain efficient control of this type of asset in organizations. This effort resulted in the elaboration of a technical pronouncement that deals with the matter, through the Accounting Pronouncements Committee: Comitê de Pronunciamentos

Contábeis (CPC), by the pronouncement No. 04, that is, CPC 04 was attributed some necessary characteristics for the evaluation and measurement of this type assets in the financial statements of organizations.

The first issue to be observed is the moment when organizations will be able to recognize and show, in the financial statements, an intangible asset. According to the Committee's pronouncement, this will only occur when it is controlled by the entity as a result of past events and which is expected to result in future economic benefits for the entity.

The organization will control the intangible asset, based on the pronouncement, only when it comes from some type of legal right. The absence of this right makes it difficult to prove control. When it comes to generating future economic benefits, market knowledge and technical knowledge can contribute. The pronouncement itself mentions that organizations may have a group of specialized employees, who will be able to obtain the cash-generating capacity of this type of asset in the future.

Another issue elucidated by CPC 04 is that, in terms of the definition of an intangible asset, an asset meets the identification criteria when: it is separable, that is, it can be separated from the one sold, transferred, licensed, rented or exchanged, individually or together with a related contract, asset or liability, regardless of the entity's intended use; or result from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or other rights and obligations.

Previous studies

The research by Delios and Beamish (2001) examined the influences of a company's intangible assets and their experience in the survival and profitability of foreign subsidiaries, using a sample of 3,080 subsidiaries of 641 Japanese companies. The results showed that survival and profitability have precedents. The experience of the host country has a direct effect on survival, but a contingent relationship with profitability. The mode of entry moderated the nature of these relationships.

According to the author's research, when a company enters an intellectual property, the experience of the recipient or host country influences subsidiary survival, but not the independent relationship with profitability. Contrary to this fact, the experience of the host country contributes to what the authors call the adaptation of intangible assets, in a way capable of positively influencing the subsidiary.

The study by Surroca et al. (2010) examined the effects of a company's intangible resources in mediating the relationship between corporate responsibility and financial performance. The researchers were unable to find a positive relationship between social and financial performance, treating this information as spurious, because it was not possible to explain the mediating effects of intangible resources. The survey results indicated that there is no direct relationship between corporate responsibility and performance, only an indirect relationship, which depends on the mediating effect of the intangibility of essential resources. They arrived at this theoretical regulation using a database of 599 companies from 28 countries.

Methodological procedures

Scientific research is the basic activity of science in the investigation and construction of reality. (MAZANEIRO; KUHL, 2013). It is the realization of a planned study, being the method of approaching the problem that characterizes the scientific aspect of the investigation. Its purpose is to discover answers to questions through the application of the scientific method, it is always part of a problem, of a question, a situation for which the repertoire of available knowledge does not generate an adequate answer. (PRODANOV; FREITAS, 2009).

The quantitative approach was used as a strategy, using secondary data (in this case, the B3 website). Regarding the classification of the research, we used the exploratory and descriptive study. According to Prodanov and Freitas (2009), the purpose of exploratory research is to provide more information on the subject that was investigated, allowing the researcher to outline it, that is, make it easier to refine the theme. Besides, research with this characteristic has more flexible planning, which allows researchers numerous angles about their object.

Descriptive research has the characteristic of seeking to describe the main characteristics of a given population or phenomenon, seeking to establish possible relationships, which means that information is observed, analyzed, recorded, classified and interpreted without the research interference. (PRODANOV; FREITAS, 2009).

As techniques, bibliographic and documentary research was used. Documentary research is very close to bibliographic research. The differentiating element is in the nature of the sources: the bibliographic research refers to the contributions of different authors on the theme, paying attention to the secondary sources, while the documentary research uses materials that have not yet received analytical treatment, that is, the sources primary. (SÁ-SILVA et al., 2009).

To the accomplishment of data collections, in the bibliographic perspective, an analysis was made of the theoretical framework available in the Personnel Improvement Coordination Coordenação de Aperfeiçoamento de Pessoal (Capes) and from Google Scholar, using the keywords to identify the studies available in the national and international context. After performing this procedure, the bibliographies were selected based on the number of citations, being used for the presentation of the theory already discussed regarding intangible assets in organizations.

In order to illustrate and bring a more pragmatic view of the theoretical content, the documentary feature of the study originated from the evaluation, by the respondents, of the financial statements of the Corporations (S / A), made available by the São Paulo Stock Exchange (B3), referring to the base year of 2017.

The research is predominantly quantitative. According to Martins and Theóphilo (2016), during the process of constructing a scientific work, the researcher, depending on the nature of the information, data, and evidence collected, may undertake a quantitative assessment, that is: organize, summarize, characterize and interpret the numerical data collected. For this, you can process the data by applying the methods and Statistics techniques.

To achieve these objectives, the Multiple Regression Analysis, Regressão Multipla (RM) was used. This model involves measuring the relationship between many variables, called "explanatory" to assess a phenomenon. Most studies that use this practice seek to examine the effect of two or more independent variables on a dependent variable.

To execute the job, the researchers started from the model presented in the study by Flach and Müller (2014), which sought to verify which variables influenced the level of disclosure of the intangible asset in the financial statements in football clubs, after the adoption of CPC 04. The reason for this adoption was due to the fact that some explanatory variables have already been tested, which could guarantee greater success in the model created. The variables adopted in the construction of the model were presented in chart 3:

Chart 3: Explanatory variables

Variables	Description
Total Revenue (RT) Receita total	The information was extracted from the 2017 statements.
Representativeness of Intangible (RI) Representatividade do Intangível	It was obtained through the ratio between total intangible and total assets.
Adjusted Net Income (LLA) Lucro Líquido Ajustado	Considering net income after the effects of inflation are recognized in the financial statements.
Total Assets (AT)Ativo Total	Total assets of the company, presented in 2017.
Shareholders 'Equity (PL) Patrimônio Líquido	Equity of the company, presented in 2017.

Source: Elaborated by the authors (2018).

When organizing the information, the initial model adopted was:

$$VIAI = \beta_{0\alpha} + \beta_1 R.T + \beta_2 R.I + \beta_3 L.L.A + \beta_4 AT + \beta_5 PL + E$$

When:
VIAI = Value Invested in Intangible Assets

α0 = Sample Intercept (constant)
R.T =Total Revenue
R.I = Representativeness of the Intangible
L.L.A = Adjusted Net Income
A.T=Total Company Assets
P.L =Stockholders' Equity.
E =Residue (regression error term).

Collections and data analysis

Sample and profile of intangible assets

Information was collected from 439 companies out of 444 possible, which are included in the financial statements of the companies listed in B3. At first, we sought to assess how this information has been presented in the statements, obtaining, as a result, the data present in table 1.

Table 1: "Main accounts presented in the financial statements.

Description	Quantities
IT Project	1
Regulatory Licence	1
Research and Development	1
Non-competition agreement	1
New products development	1
Trade Fund	1
Customer portfolio	5
Amortization	10
Intangible assets in progress	16
Brands and patents	16
Concession Contract	41
Application systems	41
Goodwill on Investments	51
Intangibles	310

Source: Research data (2017).

The information presented the main accounts evidenced in the financial statements of these companies, exposing the use of more general accounts as "intangibles" more frequently in the financial statements. As this account has a broader meaning, as it represents the classification of the group in which these accounts are represented, it is believed that this representation of intangibles in more general accounts occurs due to the difficulty of classifying certain types of assets with this nature (intangible assets), which, if it happened, could contribute to better detail. This practice can also be linked to a company strategy to not provide information that requires more details about assets involved in its activities.

Another possible reflection regarding the result presented concerns the amount of information related to the Systems and Applications assets, because, when talking about the structural form of large organizations, most of the demand, due to their pharaonic activities, is reduced to efficient information control, which is effective, driven by the use of management

software. However, as explained in the results, only approximately 10% (41 companies) of the statements brought this information segregated in a specific account, reinforcing the general character of the adoption of the "intangible" account, present in 310 companies in the sample.

Performance of the main specification tests

For the realization of the data obtained in the research, and to give them more security, some tests were carried out in the proposed model to verify if any specification error was present with the adopted variables, seeking to bring greater reliability to the results presented.

The initial test was the correlation coefficient of Person, Figueiredo Filho and Silva Júnior (2009), who describe in their study the method to be adopted when evaluating the results obtained. The variation is from -1 to 1, and one variable has a strong correlation with another when the results obtained are close to 1 and negative when it presents results close to -1 When it stays at 0, the interpretation to be made is that there is no correlation between the variables, that is, X does not explain Y.

The results presented with the study variables are shown in table 2.

Table 2: Correlation between model variables.

	VIAI	RT	LLA	AT	PL	RI
VIAI	1					
RT	0,7203	1				
LLA	0,035	0,1048	1			
AT	0,2764	0,3262	0,7368	1		
PL	0,1155	0,1491	0,9926	0,7595	1	
RI	0,151	0,012	-0,0377	-0,0466	-0,0291	1

Source: Research data (2017)

The correlations between the independent variables show interactions, when high and close to 1, between the variables may signal that the adopted regression model presents the multicollinearity problem, which is a specification error, which will impair the estimation of the parameters, inaccuracy of the estimates, which may impair the analysis based on the model.

In order to verify whether multicollinearity existed, the Variance Inflation Factor (VIF) test was performed on the regressors. This test indicates that the higher this coefficient, the more problematic or collinear the variable analyzed will be. Generally, the greater the value found, the greater the possibility of being linear. Thus, for example, the coefficient, in the case in question, was above 10, in a situation where the $R^2 > 90\%$. The result obtained, therefore, pointed to the need to eliminate the variables LLA and PL, as explained in table 3.

Table 3: VIF of the independent variables.

Modelo Inicial		Modelo Final	
Variáveis	VIF	Variáveis	VIF
RI	1,01	RI	1,00
RT	1,27	RT	1,12
AT	2,69	AT	1,12
LLA	79,04		
PL	83,71		

Source: Research data (2017)

Therefore, the adjusted model after the exclusions were defined:

$$\text{VIAIi} = \beta_0 + \beta_1 R.T + \beta_2 R.I + \beta_3 AT + E$$

In order to conclude the specification tests, considering a level of 5% of significance, it is verified that there is no heteroscedasticity problem in the model. This fact is perceived through the Breusch-Pagan test, which points to the rejection of the null hypothesis of the test since it supposes the homoscedasticity of the residuals of the regression model.

Results obtained with the new model

After performing the specification and definition tests, the calculation applied to the new model was performed, obtaining the results shown in table 4.

Table 4 "Results of the regression.

Variables included	Coefficients	t	P>|t|	R2	R2 Adjusted
Total assets	.0032513	1,59	0.113		
Total Revenue	.3106797	20,40	0.000	0,5418	0,5386
Intangible representativity	176199,7	4.46	0.0000		

Source: Research Data (2017)

Therefore, the proposed model can explain 54.18%, in others words, the inclusion of other independent variables can contribute to the development of a model that more adequately explains the proposed model.

The final model, taking into account the information, would be:

VALUE INVESTED IN INTANGIBLE ASSETS = .0032513 TOTAL ASSETS + .3106797 TOTAL REVENUE + 176199.7 REPRESENTATIVITY OF INTANGIBLE ASSETS

Final considerations

Intangible assets have been discussed and debated in several areas of knowledge. How to measure what is intangible and turn it into monetary resources is one of the great challenges for organizations. The development of important research begins, in order to outline procedures on how to extract this information from large repositories and turn this into a result.

The main motivation to carry on this study was to seek to understand how Brazilian organizations adopt knowledge management, through the reflexes that are evidenced in the information in the financial statements, through the general objective of verifying whether the companies with the greatest assets, listed in the B3, in 2017, had the largest investment in intangible assets.

With the statistical tools being applied, analyzing 439 companies out of the 444 listed in B3, it was possible to identify that there is still no further detail of this information in the financial statements, by the fact of the companies post this information in a more general account, not finding, for example, asset information as intellectual capital. Rarely have mentions been found about new product development and technology investment.

Taking into account that these organizations are public traded companies, that is, they seek investment from shareholders, the fact that there is still no such transparency, even though such an "absence" may have a strategic nature, can compromise understanding on the part of users of information about the equity reality of these companies.

Through tests and regression analysis, it was found that it is possible to respond positively to the question that guided this study. Therefore, the intangible asset is influenced by the amount of investment in its total assets, and consequently, it has an influence on the Total Revenue and the percentage of participation of the intangible asset in the total asset.

Although the model leads to this understanding, it goes so far as to explain 54.18%, there may be other possible independent variables not covered in this study, which may contribute to improving this justification, which is a limitation that must be observed in the development of the study.

As suggestions for future research, we identified that the reason why there should be no further detail of this information should be better explored, answering some gaps left in this research, such as: is this directly linked to a sector of the economy? Is it derived from the organizations' strategic policies? Is it difficult to measure this information and present it with a certain degree of reliability, as recommended by CPC 04? Another possibility should be to modify the object and check if small or medium-sized companies maintain efficient control in this type of investment.

Many of these assets are directly linked to knowledge management by a particular company. This lack of detail may reflect the absence of information and knowledge scientists studying this domain and may reflect a niche of future research and professionals to be explored, that is, other more specific studies to understand what was considered in the variable - are necessary.

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