



THE CONTRIBUTION OF INTELLECTUAL CAPITAL MANAGEMENT TO MINIMIZE THE HIDDEN COSTS IN PUBLIC ADMINISTRATION

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Abstract

this research demonstrates how proper management of intellectual capital can improve the management of hidden costs in public entities, providing the concept of intellectual capital and hidden costs and exploiting the existing intellectual capital measurement models, especially the Queiroz model (2003) which proposes the analysis of five variables for the public sector (human capital, internal organization, external relations, quality and transparency). This research presents a case study at the Fluminense Federal University - Niterói (Brazil) with the application of a questionnaire based on the Queiroz model, in order to highlight the contribution that the management of intellectual capital can provide as an auxiliary tool in the detection, prevention and administration of the hidden costs. The results allow the identification of existing dysfunctions, from poor management of intellectual capital, which contribute to the construction and perpetuation of a negative culture for existence of inefficient procedures and lack of regulation and control. Replication of this study in other institutions will check on the management of intellectual capital and what points need to be taken care to control existing dysfunctions and thus minimize, or even not generate hidden costs.

Keywords: Hidden Costs; Intellectual Capital; Public Administration; Public Service.

1. INTRODUCTION

Decades ago, the supply of information was more restricted and knowledge was considered the privilege of a few. Currently, information and knowledge are considered competitive advantage. Companies able to identify, evaluate and manage knowledge effectively generate high-performance (Stefano et al, 2014). In this sense, the difference is how to manage the information and its sources and use them strategically, both for the organization and for the individual it entered.

Knowledge (Florentino, Mexas and Abdrade, 2014; Stefano et al, 2014; Moreira, Violin et Silva, 2014), together with the information, experiences, relationships and others make up the intellectual matter, i.e. the intellectual capital which can be used in generating wealth; it is becoming an important issue not only for academics but also for governments, regulators, companies, investors and other interested parties (Stefano et al, 2014).

In this sense, the intellectual capital is considered a resource that provides competitive advantage for organizations (Lima et Ferreira, 2012; Florentino, Mexas and Abdrade, 2014; Moreira, Violin and Silva, 2014).

For Joia (2001), management of intellectual capital in public organizations can collaborate to disseminate knowledge, and improve server performance by reducing rework and increased productivity.

However, many of the newly inducted professionals do not get access to the information necessary to meet the specific routines of their duties precisely because such knowledge is retained with servers that occupied the positions previously (Sousa, 2015). Thus, it is assumed that the quality of services may be compromised and thus generate unforeseen costs initially. Such costs can be considered hidden costs. That is, those originating in the inefficiency of management (Savall et Zardet, 2004; Miller et Vollmann, 1985; Lima, 1991; Freitas, 2007; Sá,



2007; Severiano Son, 2007; Zaccarelli et al, 2008; Silva et Severiano Son, 2011; Martins et al, 2013).

According to Santos (2003), the study of hidden costs may prove of great value, while this will identify where there are dysfunctions which tie the growth and quality of service delivery.

Severiano Filho et Silva (2011) add that the study of these costs is important for all types and size of businesses, regardless of the economic sector (industry, commerce, public services, hospitals, banks and consulting firms).

Therefore, from the perspective of strategic management, it is recommended that the hidden costs are identified, sorted and evaluated individually and jointly, checking for effective management requirements on them.

Given the above, it is asked: how the management of intellectual capital can contribute to the administration of the hidden costs in the public service?

Thus, the objective of this research is to highlight the contribution that the management of intellectual capital can provide as an auxiliary tool in the detection, prevention and management of hidden costs.

For this, there was a case study in the Department of Accounting and Finance of the Fluminense Federal University and related areas, with the application of a questionnaire-based method of recognition and measurement of intellectual capital in the public sector.

The research was structured as follows: this chapter, which brings the introduction of the study; the second chapter, which enabled a review of the literature on intellectual capital, public administration and hidden costs; the third chapter, where the research methodology is presented; the fourth chapter with the presentation and analysis of results; and the last chapter with the final considerations.

2. THEORETICAL FRAMEWORK

2.1 Management of intellectual capital

Intellectual capital expression has been used in the literature to refer to intangible assets (Vargas et al, 2008). In this sense, Brooking (1996) defines intellectual capital as a combination of intangible assets, fruit of changes in the areas of information technology, media and communications, bringing tangible benefits for companies and enable their operation, and may be classified as market

assets, human assets, infrastructure assets and intellectual property assets.

In the process of evaluating a company, by measuring their total value usually does not distinguish what is tangible value and what is intangible. Attributing to the intangible difference between the total value (assessed value by the market) and the book value, which is determined via the balance sheet (Lima et Carmona, 2011).

For Sveiby (1998), intellectual capital is like an invisible asset. The management of this asset begins when it sees the company as if it were structured by knowledge and not just the capital.

Edvinsson et Malone (1998) make an analogy between intellectual capital and a tree: what can be seen in a tree (flowers, fruits, leaves, branches and trunks) is the content of the balance sheet; what is invisible (roots and heartwood - what feeds and makes the tree grow, gives color to the flowers and leaves, taste the fruits and resistance branches and trunks) is compared to the intellectual capital.

According to Stefano et al (2014), the intellectual capital is defined as the intellectual matter (knowledge, information, intellectual property, experience, relationships) that can be used to generate wealth. But contrary to common sense that intellectual capital is the result of subjectivity and how each sees and evaluates the company, this capital is real and comes from high investments in human capital, research and development, constituting what is you can call "the core of the knowledge economy" (Lima et Carmona, 2011).

As the sources to be searched can be several ways to compose the structure of the intellectual capital, for example: individual capital (Gummesson, 1998), human capital (Stewart, 1998; Edvinsson et Malone, 1998; Roos, 1998; Stefano et al, 2014), structural capital (Gummesson, 1998; Stewart, 1998; Edvinsson et Malone, 1998; Stefano et al, 2014), organizational capital (Roos, 1998), capital relationships (Roos, 1998; Stefano et al, 2014), capital renewal and development (Roos, 1998), customer capital (Stewart, 1998).

The individual capital and human capital concern the employees, their characteristics, knowledge, training and relationship network. Structural capital corresponds to the characteristics belonging to the company and its relationship with the environment, whether internal or external, as well as its image, system and network of relationships. Organizational capital is related to the internal structure of the company. While the relationship of capital and the capital of clients refer to the company's



relationship quality with its customers and partners and capital renewal and development is associated with the company's innovativeness.

For Gummesson (1998), Edvinsson et Malone (1998), human capital and structural capital interfere with the creation of enterprise value, the latter being, in the opinion of Stefano et al (2014), an active valuable strategic.

Stewart (1998) points out that the structural elements of intellectual capital interact with each other and may increase or decrease each other.

Stefano et al (2014) point out that the interdependence of these elements and the management of knowledge flow between them enables the organization to get the highest return on their intellectual capital, in the case of intrinsic knowledge to the organizational value chain.

The literature revision on intellectual capital converges to the conclusion that knowledge is the main item of intangible assets of organizations and is embedded in human capital. Therefore, it is necessary to invest and create a set of conditions that will allow develop the human capital of a company.

These assets are of increasing importance to the creation of business value in all types of processes of organizations.

Organizations need to be able to manage intangibles in order to grow and be sustainable, presenting these intangible assets as the basis for an organization's innovation capacity and, therefore, the primary source of future economic benefits (Stefano et al, 2014).

For Santos (2009), there are several factors that influence the capture, creation, dissemination and knowledge of storage in organizations. They are: organizational culture, organizational structure, information systems, training program, mapping knowledge, talent bank, policy and guidelines, document management and access to explicit knowledge (manuals, instructions, standards and information technology tools).

Even in the public sector it is important to manage knowledge because, according to Stewart (1998):

[...] Knowledge has become the main ingredient of what we produce, we do, buy and sell. To find and stimulate intellectual capital, store it, sell it and share it, or manage it, it has become the most important economic task of the individual companies and countries (Stewart, 1998, p. 11).

While the private sector implements knowledge management in order to profit increasingly, public administration primarily seeks quality, efficiency, social effectiveness and economic and social development (Bastista, 2012). For this author, the effective management of knowledge in public administration helps organizations meet new challenges, implement innovative management practices and improve the quality of processes, products and public services for the benefit of the citizen-user and society in general.

Moreira (2004) argues that public institutions must pay attention to their servers as leveraging elements of results within the organization, as people who make a difference and make this organization is distinct from the others. For this to happen, it is necessary that they are valued. This includes, among other things, be trained, developed, socially integrated, motivated, paid with dignity and encouraged to participate in decisions.

By itself, the intellectual capital is not relevant or useful. Its value must be the understanding that it is a way to refine the business strategy, providing positive feedback (Arthur, 1996). It requires an organizational culture that is able to create and store knowledge (Stefano et al, 2014).

In this regard, it is important to have a management system. Rodriguez (2002) discloses management system as:

[...] the presentation in a structured and organized manner to how is the integration between its formal and informal internal systems that make it ensured compliance with business strategies supported by people within a formal organization of power (Rodriguez, 2002, p.156).

It is observed that the management system is composed of people, processes and technologies. These three elements are guided by the company's strategy and customers to be reached. Such guidance is through education activities and learning best practices and innovative practices that will boost competitiveness and survival of the organization.

Each element of the management system can be described in a few words, according to the definitions Rodriguez (2002) for each:

- a) **People:** represent the behavior that people develop, based on the organization's culture, beliefs and values;



- b) **Process:** represent the formal flow of information systems (formal power structure with hierarchical levels) and decision-making processes (standards and procedures); and
- c) **Technologies:** is represented by infrastructure software and equipment necessary for the flow of information.

The harmonious integration of people, processes and technologies in the organizational environment is a major factor for the success of any management system. Otherwise, the service to business strategy will be seriously compromised.

The attempt to adopt the management of intellectual capital and management system or as any other component, according to Ferreira (2007), should undergo a strategic reflection on the current context of public sector situations and conditions under which it is submitted, among them:

- a) An image worn to the population;
- b) Casts administrative procedures, or without rational standards established for the service;
- c) Turnover in charge and conduct of decisions;
- d) Misinterpreted legislation brings many people to the problems rather than help her;
- e) Effective servers realize lower remuneration than those who are not of permanent staff or who are appointed in commissioned positions (temporary political office), demonstrating a lack of logic in the remuneration. Logical that this is also reflected in wage discrepancies between even by professionals in different organs; and
- f) Differences in the quantity of employees with disproportion in relation to demand, influencing the environment and organizational climate not suited to the information and knowledge sharing.

Moreira et Costa (2005) state that - in the eyes of most ordinary citizens - the public servant to be confused with the offices where he works, and many of them are dusty symbols of bureaucracy.

According to Martins (2003, p. 41), the server should be considered "partners since become suppliers of knowledge, skills, ability and intelligence and become the intellectual capital of the organization."

Public institutions need to be more flexible, adaptable and ready to apply new procedures with agility. Still need to be consistent with the aspirations of the people for self-respect and self-realization, allowing greater professional awareness and greater self-esteem. They also need to rationalize activities and seek creative ways of acting (Moreira et Costa, 2005).

Queiroz (2006) presents some peculiarities of the public sector that may reflect the implementation of the management of intellectual capital, which are stated briefly below:

- a) In the public sector, it is under the encouragement of the adoption of new management practices because of the low level of competitiveness in relation to the private sector;
- b) The objectives of public institutions are diverse and intangible. The goals are not quantifiable in monetary terms and are difficult to see;
- c) The tangibility level of resources involved in the public sector is much smaller. The main activity is the provision of services, where knowledge and human resources prevail;
- d) Social responsibility is required the most as one of its objectives and not merely something that only improves body image;
- e) The services are intangible and, of course, the quality control is different for intangible assets, which prevents the application of specific procedures for valuation of intangibles such as the degree of user satisfaction;
- f) Lower margin of flexibility to the decisions of managers due to the principle of legality and of the obligation of transparency of the acts, which makes more complex the implementation of concepts of intellectual capital in much of the public sector;
- g) Less urgency to quantify intellectual capital favors practical application, as in the private sector economic objectives undertake to quantify the intangible; and
- h) Accountability required the company to meet the demand of taxpayer information and to meet mandatory standards of presentation of social and economic results of the application of public resources.



2.2 Models for measuring intellectual capital in the public sector

Among the methods developed exclusively for the public sector is the model proposed by Caba et Sierra (2001), based on the European Foundation Quality Management Model (EFQM) using its elements distributed in three blocks: human capital, structural capital and relational capital.

One can also cite the measurement model of intellectual capital SICAP (2004), which was developed by the European Union especially for public administration with a proposal to facilitate the efficient management of public services. The model identifies a structure of three components of intellectual capital: human capital public, structural capital and relational capital.

There is also the model Intangible Assets Statement of Garcia (2001), which took as references the Model Intangible Assets Monitor of Sveiby (1997) and the Intellect Euroforum (1998). In this model, there is no financial section referred to as intangible investments that do not comply with the requirements to be considered as an asset accounting.

This proposal supports the most detailed knowledge of these intangible assets and favors the establishment of a well focused strategy to them. The model of Garcia (2001) also uses the three dimensions of intellectual capital: human capital, structural and relational, and hence derive several indicators with objectives to demonstrate and measure, among others, the efficiency, effectiveness and excellence of services provided to citizens.

In short, most models structure the intellectual capital from three constructs: human capital, relational capital and structural capital. This composition can be expanded to meet the public area, as there are other important aspects that should be addressed in the analysis of intellectual capital. This does not happen with the justification that the greater the number of constructs will be better the model, but the fact that, being able to evidence relevant to the public sector, more enriched and objectives will be demonstrated results.

2.2.1 Intellectual Capital Model of Queiroz (2003)

An interesting method of measurement for the public sector is proposed by Queiroz (2003). The author believes that the existing models to measure the intellectual capital of the private sector, if they suffer adaptations can be availed in the public sector. Based on this assessment, he proposed a model that could contribute to the

analysis and management of intellectual capital in the public sector.

It is important to point out that this model has among its objectives, to check the performance of the organization, seeking to improve the quality of service and achieve excellence in management. This way allows you to define, develop and measure indicators of intangible assets that enable us to measure and evaluate the potential and quality of results, and adapt to the peculiarities of each organization.

Given these possibilities, the model was applied by Queiroz (2003), initially to evaluate the intellectual capital of public agencies in the city of Madrid, Spain. After that, it was used by Mello et al (2003) for evaluating intellectual capital of the web pages of Brazilian legislatures.

The same model was used by Igarashi et Igarashi (2008), in a study that aimed to operationalize it, trying to find what their contribution to the management of intangible elements in the support department of a public bank active in all of Brazil. Later, Igarashi et al (2011) analyzed the model application viability (originally developed for the public sector), in a private company providing computer services in Santa Catarina, Brazil.

The model approach focuses on intangible elements that are at the strategic level of public or private institutions. But before achieving excellence and quality at the strategic level, it is necessary to overcome the operational and intermediate levels that necessarily involve the financial controls of accounts, budget adjustments, resource economy, effectiveness and efficiency.

In the construction of this model, the author suggests the inclusion of two important intangible groups and indispensable to the public sector: the quality and transparency. Furthermore, it takes the three dimensions of intangible assets presented by Sveiby (1998): employee competence, internal structure and external structure.

In this way, it is going to present, in more detail, the model Queiroz (2003), shown in Figure 1, where they are shown the five components of intellectual capital in the public sector.

- a) Human Capital - is the ability of civil servants to solve problems, innovate solutions and improve the efficiency and effectiveness of the agency they work for. When there is technical stagnation, accommodation servers, demotivation, or when there are frequent political changes that interfere with the organization, these facts lead to a decrease in human capital;



Queiroz (2003) highlights the need for each institution to analyze their specificities and elect, in its process of managing intellectual capital, the elements that are more aligned to its strategy and culture.

2.3 Hidden Costs

According Savall et Zardet (2004) the result of a permanent and complex interplay between the structure of the company (tangible or intangible) and human behavior can lead to malfunctions, which in turn generate costs, and these are usually hidden.

Some authors as Falconer et Whitby (1999), Motomura (1999), Femenick (2005), Gold (2005) and Dutra et Bornia (2009) use the term "invisible", the other as Savall: Zardet (2004), Miller: Vollmann (1985), Lima (1991), Freitas (2007), Sa (2007), Severiano Son (2007), Zaccarelli et al. (2008) use the term "hidden".

The authors that use the term "hidden cost", do it to denominate those ones who originate from management inefficiency, while using the term invisible costs for those that are inherent in the company's activities, caused by internal structural problems or external to the company and it is evident in comparative degree with the competition.

This research will use the term "hidden cost", as it seeks to investigate the contribution of the management of intellectual capital in the management of these costs.

According to Femenick (2005), the hidden cost is the result of an equation that balances the result of optimal performance with the result of the actual performance of the company.

For Silva et Severiano Filho (2011), the hidden costs are an integral part of the production chain. Therefore, it is of fundamental importance to the study and knowledge of these costs for a good view of the entity's operation as a whole.

Herculano (2009) attributes the emergence of the hidden costs of a lack of accuracy of costing systems chosen by companies. Each method has its level of precision and detail that lead to the omission of various costs, hiding them.

In another aspect, Lima (1991), Savall et Zardet (2004) and Freitas et al (2007) address the hidden costs as a result of the complex interaction between two groups of variables that interact permanently: the company structures and human behavior. This interaction does not

always occur that the expected operation, creating dysfunction that need to be regulated; otherwise generate hidden costs.

Colenghi (2003) presents a complexity of events that lead companies to malfunction and where waste is more common: excessive bureaucracy; lack of coordination in development work; inadequate equipment involved in the process; inefficiency controls; delays in services to internal and external customers; inadequate physical distribution for the activities; duplication of controls; unsafe and expropriated operations; lack of cooperation among employees; bad programming of inventory items; idle personal and disinterested; lack of rationalization of activities; too many and no controls for the documentation; loss of customers; existence of "central rumors"; time lost in management; poor service and misuse of the phone; loss of sales; "business incompetence"; unprofessionalism and incompetence of the governing body, among others.

For Silva et Severiano Son (2011), these are determinations that are at the same time, the explanatory variables and solutions for emerging dysfunctions.

They also maintain that the dysfunctions give rise to hidden costs, which are computed by measuring the economic impact associated with absenteeism phenomena, occupational accidents, staff turnover, product quality and direct productivity, as shown in Figure 2.

On the horizontal line of the previous picture header are the four components of the hidden costs, whereas in the first column are the indicators dysfunctions. In the list of components to the indicators, identify the hidden costs generated by malfunctions.

Figure 3 shows the possible areas of action of the management of intellectual capital:

- a) Structures - Development of physical structures, demographic, technological, mental and organizational; and
- b) Behavior - Development of cultural, individual behavior, categories, acting and lobbying groups.

It can be observed that Figure 3 shows two scenarios, each illustrated by a geometric figure clover shaped.

In the first, we present an atrophied performance, arising from the interaction atrophied behavior of individuals or groups with organizational structures, physical or technological also atrophied. Such interaction is represented in the left and right flaps.



REGULATORY ACTIONS OF DYSFUNCTION	About Salary	Order or Regulation time	About consumption	No production or Inhibition potential
ABSENTEEISM	Personnel costs due to the payment of compensation for low	Personnel costs due to the administrative treatment of shortages process	Cost of operation of the administrative treatment of process faults	Work that is carried out by a lack of people and/or their replacements
ACCIDENTS	Payment of health costs, insurance and personnel expenses due to the payment of compensation for low	Personnel costs due to the administrative process of the treatment of accidents	Cost of operation of the administrative process of accidents	Work that is carried out by a lack of people and/or their replacements
NO QUALITY	Personnel costs without work return as expected	Personnel costs due to the time of evaluation and regulation of the situation	Cost additional operation for task repeating	Work was to be done by virtue of the task repeats
NO PRODUCTION	Cost with personal without retribution staff like expected and personnel for maintenance activities or malfunction	Personnel costs due to the time of evaluation and regulation of the situation	Constant fixed operating cost without production	Work that could have been done and was not for lack of production
PERSONNEL ROTATION	Personnel costs without work return as expected	Monitoring provided by responsible for training	Cost of training and operation due to repeated learning phase tasks	Work that could have been done and was not due to inexperience

Figure 2 - Regulation of malfunctions

Source: Savall; Zardet (2004).

The interaction between these two areas (behavior and structures), causes dysfunctions caused by the conditions and organization of work, loss of time and non-adherence to the company's strategy.

These dysfunctions cause absenteeism, accidents, staff turnover, low product quality and loss of productivity. Dysfunctions and the results are shown in top and bottom flaps.

On the left and right Tab Figure 3 (behaviors and structures) are represented the priorities of the action of the management of intellectual capital.

In the second clover presents a scenario under the intervention of intellectual capital management: with the development of behavior and structures, it may be possible to reduce the dysfunctions. Thus, there is a reduction of hidden costs, making the organization's performance is more efficient and is towards the pursuit of excellence.

3. RESEARCH METHODOLOGY

3.1 Research Method

Considering that research objective was to demonstrate the contribution that intellectual capital management can provide, as an auxiliary tool in the detection, preven-

tion and management of hidden costs, we began the research with the literature review in order to find scientific articles, theses and dissertations that contribute to the understanding of the concepts of intellectual capital and hidden costs, and allow check for models to measure intellectual capital, mainly in the public sector. For this, searches were carried out by keywords: intellectual capital, hidden costs, public administration and public service.

After checking the measurement models found in the literature review, we sought to identify the one that best fit the purpose of the research. The most suitable was the model for measuring the intellectual capital to public service of Queiroz (2003).

Then, in order to obtain the necessary information and apply them to the model of intellectual capital management was used questionnaire prepared from classified elements in the model, with closed and objective statements, where the respondent could express their level of agreement with the displayed phrases.

It was decided to apply the questionnaire in the areas of planning, budgeting, accounting and finance a federal institution of higher education in the city of Niterói, Rio de Janeiro.

Armed with the answers, the results were collected and analyzed in the light of the concepts of hidden costs, their types and origins as well as its relationship with the

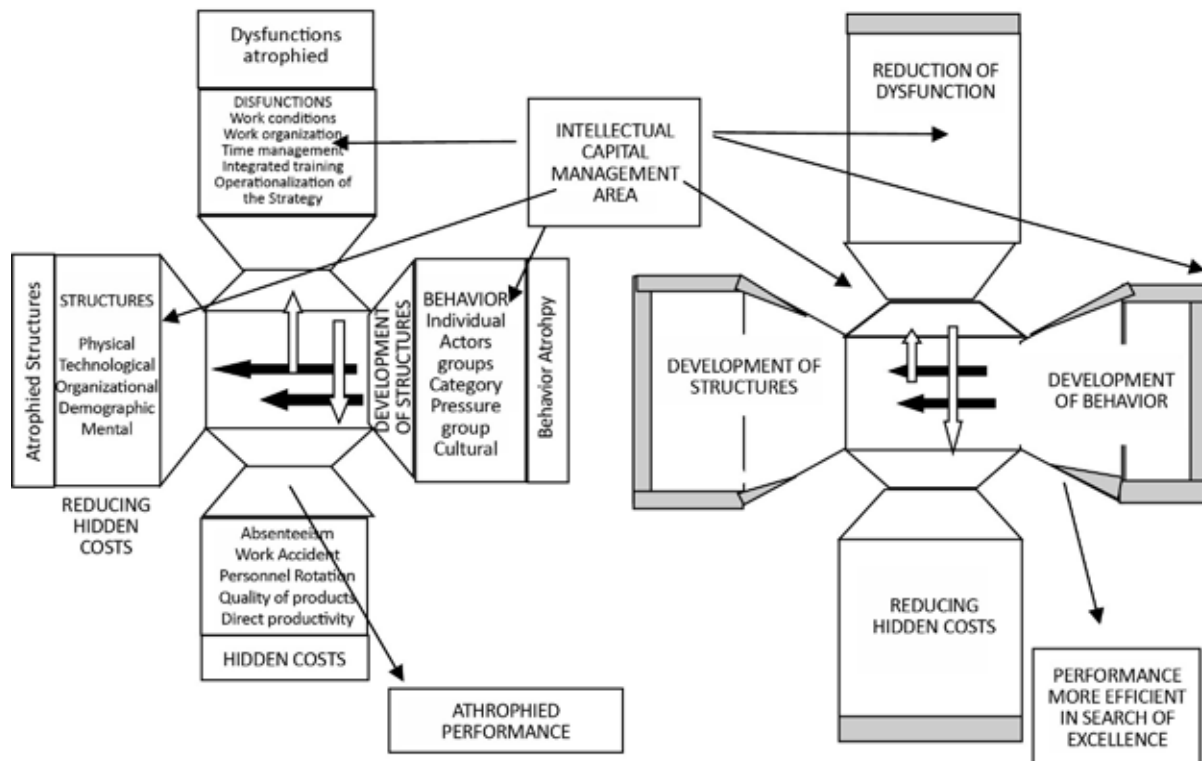


Figura 3 - Áreas de Atuação do Capital Intelectual

Fonte: Adaptado de Savalli; Zardet, 2004.

components of intellectual capital. From this analysis, it is expected to reach possible answers to the question about the contribution that the management of intellectual capital can offer to minimize the hidden costs in public administration.

The research method used was the study of descriptive case, which aims to describe the current practice (Collis et Hussey, 2005).

3.2 Collection, processing and analysis of data

There are various methods of collecting data. In this study, the method chosen was the questionnaire. According to Collis et Hussey (2005), a questionnaire is a carefully structured list of questions, in order to extract reliable answers given sample to find out what a certain group does, thinks or feels.

To reach a larger number of respondents, the questionnaire was sent electronically. In addition, in order to strengthen the analysis and, where necessary, interviews were conducted with managers (directors, managers and heads) in order to obtain further information on the perception of this hierarchical level as the management of intellectual capital.

So that there was flexibility in the answers of respondents, we used the Likert rating scale. According to Collis et Hussey (2005), this scale allows respondents deem more discretionary responses, stating whether they have an opinion on the subject. In addition to allowing it to be given a numerical value to the opinion.

To the degree of agreement are assigned numerical values on a five-position scale stipulated values -2, -1, 0, +1, +2, and its extremes: position 1 with weight -2 = strongly disagree and 5 position with weight 2 = strongly agree.

To calculate the value of the answers (VRF) the amount of responses will be multiplied in each position (QRP) by the corresponding weight assigned to that position (PAP), represented by the following equation:

$$VRF = (QRP \times PAP)$$

After that, a final value will be assigned to the set of responses (VFR), which will be by summing the values for each response provided (VRF) represented by the formula:

$$VFR = \sum VRF$$



Finally, to obtain the simple average of each statement will be necessary to divide the final value of the response by the total responses according to the following formula:

$$\text{Average Affirmative} = \text{VFR} / \Sigma \text{QRP}$$

Every ten affirmative group will be held by the determination group because each group is a component of the intellectual capital of the proposed model. This calculation corresponds to the second stage of calculations, which will be held the sum of the average of the ten statements and the result divided by ten.

3.3 Limitations of the study

The institution chosen to be case study object was the Fluminense Federal University (UFF), located in the city of Niteroi, state of Rio de Janeiro.

The results can not be generalized because it is the research of a case study that reflects the reality of one sector.

In addition, the five components studied by Queiroz (2003), we chose to work only with the human capital and the internal organization.

4. PRESENTATION AND ANALYSIS OF RESULTS

The questionnaire was conducted on a sample of 51 servers that act in the Planning Pro-Rectorate of the UFF, distributed by areas of planning, budgeting, finance and accounting. Of the 51 questionnaires, 46 returned answered, corresponding to 90% return.

4.1 Individual factors

From the answers obtained from the questionnaire, it was possible to draw a profile of the respondents.

It may be noted that, of the 46 servers that responded, 37% are male and 63% female. Since the total number of servers, 80% have up to 10 years of service. This makes it clear that this is an area with workforce renewed by hiring new workers. The remaining 20% are around the age of requesting the right to retirement. Which means, on the one hand, future renewal on staff and on the other, possible loss of knowledge, if it is not being properly stored or transmitted to staying.

Moreover, it was observed that the respondents, 24% were heads, while 76% had no management role. Most respondents have higher education (87%) and only 13% average level of training. However, 39% are in the position that requires higher education, 59% in mid-level positions and 2% in fundamental level positions.

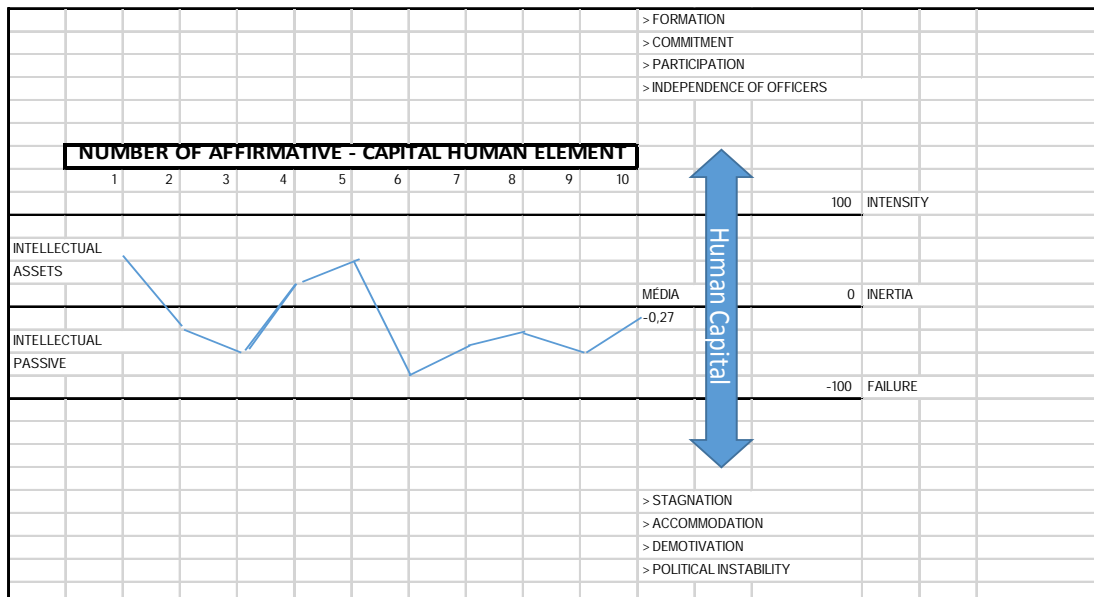


Figure 4 - Component Result Human Capital

Source: Adapted from Queiroz, 2003.



4.2 Component human capital

Figure 4 shows the calculation for the human capital component, whose mean response was -0.27. Because it is a public institution service provider, this element is the most important, given that the assets and structures (tangible or intangible), according Sveiby (1998), have their origins in the organization's staff and depend on it to continue to exist.

After analyzing the responses provided on the ten statements regarding the human capital of the institution, it was found that the phrase No. 5, which deals with the use, by department, assessing the performance of servers, was the one that had the best score in full agreement. But in interviews with the responsible managers, the motivation and the utility of evaluation, it was found that the fact that motivation for performance evaluation is not related to the management of intellectual capital, but the legal aspect, since it is held to meet the law No. 8112/90.

The level of integration and exchange of knowledge between the servers has been addressed in the first statement, with 70% of respondents agreeing partially or fully with the statement. This shows that among the servers, professional relationship is good and there is a healthy partnership in the implementation of work.

This collective behavior (exchange of knowledge) may be the result of the recommendations given by the department to employees participating in training courses and professional development. According reported in an interview given by the direction of the department, the servers are aware that should be multipliers of knowledge who purchase during the courses sponsored by the University.

The incentive to employees to participate in further training and professional development courses can be checked with the analysis of affirmative No. 4 (The department encourages and sponsors their employees to participate in courses.), which obtained positive performance, where 56% of respondents agreed partially or fully with the sentence.

Now with reference to the organizational environment, the perception of respondents is that there is concern on the part of managers to verify how is the organizational climate, the motivation and satisfaction of servers. The degree of agreement with the No. 6 phrases (The department conducts research to check on the organizational climate, motivation and satisfaction of their servers.) and No. 7 (The department encourages projects and events aimed at the welfare of servers and impro-

ve the organizational climate) that address these issues, showed the highest negative score: 74% of respondents disagreed partially or fully the department checks periodically as is the organizational climate.

According to Sorio (2005), do not know the organizational climate of the institution does not allow the creation of an information base that allows defining an action plan to improve it and increase productivity. As a result, place the professional intrigues driven by individual placement, malaise, low production and turnover of people, generating costs of non-production and hiring and training costs for surrogate servers.

A relatively large number of respondents disagreed with the constant statements in phrases No. 8 (The department's practice to use meritocracy for appointments in managerial duties) and No. 9 (The department consults with the servers on projects and actions to be developed), results also contributed to lower the average human capital.

Concerning the allocation of the servers, the question object No. 10 (The servers of the department are well allocated to their duties in order to facilitate the use of their skills and abilities), it appears that there is division of opinion, making clear that there may be savvy and good level of competence people not being utilized properly. On the other hand, there may be appointments to leadership functions without using the criterion of professional meritocracy.

The fact of not knowing harness and properly direct the internal talent can significantly undermine the morale of the team and heads. Each server should be encouraged to seek the improvement of the knowledge and professional development, deriving that the quality of services and satisfaction of clients served, in addition to sure that can be recognized professionally and valued for their actions on the occasion of new appointments server.

From the degree of agreement obtained with the statements of this block related to human capital, it was possible to conduct an analysis of existing negative aspects, identifying the affected area and the hidden costs generated, presented in Table 1.

It is noteworthy that the GESPÚBLICA program of the National Public Management Secretariat (BRAZIL, 2005) has, among its grounds, participatory management, which determines a managerial attitude of leadership that seeks the maximum cooperation of the people, recognizing the capacity and differentiated potential of each and harmonizing individual and collective interests, seeking the synergy of teams. So people take ownership



Table 1 - Negative aspects and Hidden Costs in Human Capital

HUMAN CAPITAL			
NEGATIVE ASPECT DETERMINED	QUALIFIED AVERAGE	AFFECTED AREA	RELATED COSTS
It does not perform probationary period	-0,46	Human Resources and Quality	Poor Management, Not Quality, Not Production, Bad administration time
It does not carry out organizational climate survey	-1,3	Human Resources and Management	Rotating staff and Poor Climate Management and People
It does not encourage welfare project and improving the organizational climate	-0,74	Human Resources and Management	Rotating staff and Poor Climate Management and People
Do not use meritocracy in leadership appointments	-0,54	Human Resources, Management and Quality	
Do not consult the servers on projects to be developed	-0,96	Management	Bad management

Source: Own elaboration (2016)

of the challenges and work processes in which they participate, make decisions, create, innovate and give the organization a healthy organizational climate.

According to Moraes (2004) employee participation in the process of decision making and in the resolution of problems provides further integration with the institution, increased safety and confidence of employees. The lack of such participation will directly affect the organizational climate negatively, generating rumors, boycotts and politics.

4.3 Component Organizational Capital

The component organizational capital had an average score of -0.32 calculated, as shown in Figure 5, making it clear that this component also needs improvement actions for performance management in the organizational aspect.

The delay in decision making and implementation of agreed solutions was treated in question No. 11. The answers offered to this question often indicate that decisions are postponed to another time and, in many cases, this other moment is not the most timely and appropriate. Because of this delay, end up hurting the implementation of solutions which, if decided before, would bring better results and would be implemented with more time available to them.

The question No. 12 also has a high degree of division of opinion and deals with the online availability of information, manuals and forms over the internet. Many disagreed servers that this information is available and can be easily found while others reported the opposite. This division of opinion already reflects the lack of information on the subject.

After analysis of the phrase No. 12 respondents profile, it was observed that the possessor's server management functions were those who agreed with the statement. This indicates that the information may be restricted to the heads when they should be expressly disclosed by themselves.

In this line of treatment of the information approach, it was asked what level of agreement servers could express for the affirmative No. 13, that the department has banking solutions and lessons learned for use in similar cases in the future.

In the overwhelming majority of the responses were in full disagreement. In an interview with the leaders of the department, this information was confirmed.

Among the benefits that the practice of lessons learned can bring are the prevention of the repetition of errors, improved quality of goods and services by reducing errors, rework and cycle time. According to Stewart (1998), one of the best ways to increase structural capital is accumulating lessons learned.

Still in the accessibility of information, phrase No. 15 states that the organizational chart of the department is available and accessible to all servers, and they are aware of this accessibility. The answers highlight the division of opinion with slight tendency to dissent, allowing to conclude that there is little knowledge of this accessibility.

The lack of knowledge about the organization chart of the institution limits the servers for the recognition of their individual responsibilities in the production process and the importance of their area (section, department, division, etc.) have in the hierarchy and organization department (Igarashi, 2011). Furthermore, it should be dis-

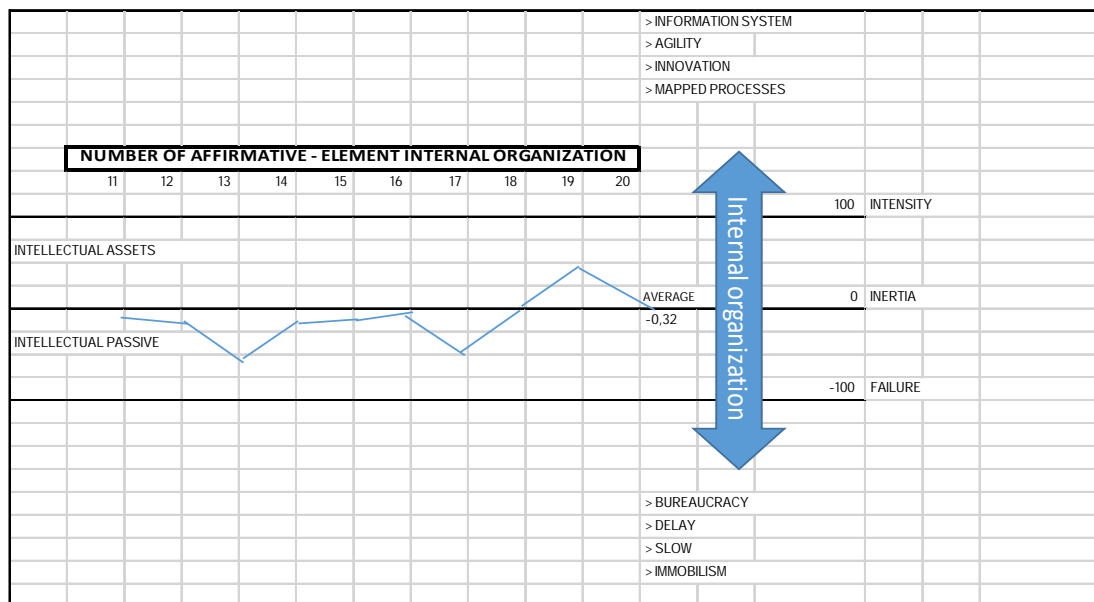


Figure 5 - Component Result Organizational Capital
 Source: Adapted from Queiroz, 2003.

closed to that, too, citizens can see how this institution is organized to fulfill their role (Queiroz, 2003).

Despite this administrative organizational ignorance, the servers know their duties and their colleagues, enabling the operational level work according to these assignments. This was made clear by analyzing the responses to question 16.

However, this operation takes place subject to a natural flow of the production process, which was built over the years without a periodic analysis and mapping of this flow, seeking to improve it. These findings were made possible by interviewing the older servers, who explai-

ned how the processes were built and transformed over the years.

In the words of Alves and Barbosa (2010), the act of sharing information was established as a type of social interaction that allows to obtain more agile organizations, intelligent and flexible, and contributes to an information culture where more process values if participatory and less individualistic.

In the analysis of question No. 17 (the processes of the department are well mapped allowing low level of bureaucracy.) It was observed that 72% of respondents believe that the level of bureaucracy is high.

Table 2 - Negative aspects and Hidden Costs Internal Organization

INTERNAL ORGANISATION			
NEGATIVE ASPECT DETERMINED	QUALIFIED AVERAGE	AFFECTED AREA	RELATED COSTS
It has no bank of lessons learned	-1,37	Management and Quality	Obsolescence, Not Quality and Poor Management
The information of interest to servers are not available in a timely manner.	-0,35	Human Resources and Management	Poor management and bad time management.
The organizational chart of the department is not accessible.	-0,35	Control and Management	Poor control and Bad Management
The department does not have well mapped management processes.	-0,93	Management and Quality	Bad management and poor control

Source: The authors themselves.



From the degree of agreement obtained with the statements of this block related to the internal organization, it was possible to conduct an analysis of existing negative aspects, identifying the affected area and the hidden costs generated, presented in Table 2.

5. FINAL CONSIDERATIONS

Answering the research question “How the management of intellectual capital can help in the management of hidden costs in the public service?”, It was observed that the management of intellectual capital can contribute to the administration of the hidden costs in the public service, with the minimization or assignment of its existence and the regulation of behavior and atrophied structures by reducing the hypertrophied dysfunctions that generate hidden costs in the public service.

For this, it is important to have a participatory management, interest in knowing and understanding the organizational climate, allocate responsibilities properly, create rules and procedures, adopt transparency, among others.

It was observed that the entity under study, there is a good management of intellectual capital. The existence of inefficient management has serious consequences for the institution, contributing to the construction and perpetuation of a negative culture for existence of inefficient procedures, lack of regulation and control. It generates unmapped processes that enable their rework, lost time and high level of bureaucracy.

Thus, it can be concluded that more important than knowing the perceptions of individuals is to have data showing which elements of intellectual capital must be better managed in order to decrease the occurrence of hidden costs.

The management of intellectual capital becomes more complex when put into practice in public organizations where the emphasis is politics and generally planning sees more immediate results, i.e. in less than four years to coincide with the electoral mandate its key managers.

It is believed that, in the public sector, it would be necessary to regulate and control the use of this tool so that it does not become a justification for unnecessary and absurd expenses, which, by their nature, are not easy to measure and evaluate the effectiveness of their application.

Therefore, it is necessary that the management of intellectual capital is a constant practice in favor of the

pursuit of the public administration efficiency, considered by the vast majority of the population as hungry for taxes and does not offer the contrast in quality to citizen services.

It is suggested as future research an extension in the case study, with studies in other institutions in order to build a more comprehensive picture of the reality of the intellectual capital management in the public sector. In addition to searching the reality of the other components of the model of Queiroz (2003) in public institutions.

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