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Study On The Information Technology Governance Impact In The Performance of Brazilian Business- An Analysis From The Perspective Of Executives, Users And It Teams Members

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ABSTRACT

This work is primarily aimed at understanding how the models of Information Technology (IT) governance best practices can positively impact the Brazilian companies' performance. This qualitative and quantitative study of exploratory and descriptive level was carried out through an electronic survey, to which it was invited 38 Brazilian companies that reported they were using models of information technology best practices. The constructs delimitation is given from the perspective of executives, users and IT teams members. The results indicate that there is a tendency among executives to relate directly the adoption of models of IT governance best practices with the estimated benefits and costs. The study also found that, in environments where specialized human assets are essential to the efficient and effective implementation processes, meeting the contractor and the IT services users' requirements turns to be a difficult task. The results suggest that the low involvement of upper management in the improvement identification in the organization internal processes can impact negatively the results delivery agility.

KEY-WORDS: Corporate Governance. Strategic Planning. IT Governance.

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Estudo do Impacto da Governança de Tecnologia da Informação no Desempenho das Empresas Brasileiras: uma Análise a partir da Perspectiva dos Executivos, Usuários e Membros de Equipes de TI

RESUMO

No presente trabalho, o objetivo principal é compreender como os modelos de melhores práticas de governança de Tecnologia da Informação (TI) podem impactar de forma positiva o desempenho das empresas brasileiras. Para este estudo quali-quantitativo, de nível exploratório descritivo, convidaram-se, por meio de um survey eletrônico, 38 empresas brasileiras que declararam utilizar modelos de melhores práticas de tecnologia da informação. A delimitação dos construtos ocorreu a partir da visão de executivos, usuários e membros de equipes de TI. Nos resultados, indica-se que existe uma tendência entre os executivos de relacionar diretamente a adoção de modelos de melhores práticas de governança de TI aos benefícios e custos estimados. No estudo, identificou-se também que, em ambientes onde os ativos humanos especializados são essenciais para a execução eficiente e eficaz de processos, satisfazer o contratante e os usuários de serviços de TI torna-se difícil. Nos resultados sugere-se ainda que o baixo envolvimento da alta gerência na identificação de melhoria nos processos internos da organização pode impactar negativamente a agilidade de entrega de resultados.

PALAVRAS-CHAVE: Governança Corporativa. Planejamento Estratégico. Governança de TI.

1 INTRODUCTION

Due to the market constant changes and demands, the emergence of new models of corporate governance has been highlighted in recent decades. In the governance context, different schools of thought have emerged over the years seeking to explain and understand the performance differences among companies.

In face of the complex dynamics involving strategic planning, new approaches are built, such as the theory of transaction costs (Coase, 1937; Williamson, 1985), the theory of the agency (Ross, 1973) and the company's vision based on resources (Barney, 1991). When analyzing a company organizational structure from the perspective based on resources, one must take into account the possibility of creating competitive advantage from its resources portfolio, whether of human assets, organizational, financial or physical kind. Prahalad and Hamel (1990) also emphasize that to achieve sustainable competitive advantage, organizations need to develop core competencies.

In the current scenario, several factors have led organizations to review their current management models of information technology (IT) among them: the highest degree of the business dependence on the IT area; the increasing complexity of the resources involved; the need to comply with defined regulations based on information criteria or business requirements and the increasing demand for transparency and accountability. These factors, combined with the need for strategic use of the information technology, have created favorable conditions for the emergence of IT governance.

In an enterprise environment characterized by hyper competition and uncertainties, the information becomes a key resource for all organizations, therefore, identifying the contribution degree that IT delivers to the companies' results appears as a major challenge for managers.

In the present study, the main objective is to understand the potential of IT governance in contributing to the Brazilian companies' performance. The constructs delimitation occurred based on the vision of executives, users and IT teams members in companies that declared they

were using models of information technology best practices. The data from this study were collected through *survey;* it was used a questionnaire with standardized questions in a Likert scale, sent via e-mail. The participants were 29 professionals representing 21 companies.

Initially, in this paper, the principles of corporate governance and IT governance are correlated; meanwhile, it is presented, as from documentary analysis, the current IT landscape in the country. Then, the methodological procedures are described. Further to it, the results are presented and discussed. In the final section of this study the final considerations, the main findings, limitations and directions for future researches are presented.

2 CORPORATE GOVERNANCE

The corporate governance theme arose in England and in the United States and has been under development over the years. Initially, studies on governance were more focused in identifying governance failures, than in identifying the benefits provided through the adoption of best practices. The first codes of best corporate governance practices arose in the early 1990s, more precisely in 1992. The first book, the title of which contained the expression corporate governance, was published in 1995 (Bettarello, 2008).

There is a historical and direct relationship involving the scandals that took place in 2002 and the subsequent adoption of better corporate governance tools. The observation of the facts involving the problems that occurred in major international corporations such as *Enron, WorldCom and Parmalat,* pointed out fragilities in the existing audits in the relationships among owners, managers and markets. The severity of these facts impacted negatively the financial market, undermining the investor confidence and raising concern about the deployment of protection mechanisms for the private companies' *stakeholders* (Weill & Ross, 2006).

It is worth emphasizing that the issues involving corporate governance are not limited to a mere verification of accounting or audit procedures. In a simplified way, the concept of corporate governance deals with the mechanisms or principles adopted in the company strategic

management, coordinating the power distribution and alignment of interests between the parties.

2.1 AGENCY CONFLICT

The governance concept emerged as a result of the need for separation between the ownership and the corporate management; it is from this point that the agency conflict begins to become more evident. The agency problem, also known as principal-agent problem, consists of the dependence of maximizing the value of the denominated value (shareholder) as a result of decisions made by the agent (administrator). Although the agent must make decisions for the benefit of the principal, the conflict of interest can motivate him to make decisions for his own benefit.

The greatest theoretical contribution to this theme has occurred with the work of Jensen and Meckling (1976). In their studies, the authors defined the theory of agency as a contract in which the principal delegates authority decision to the agent to carry out works in his favor. However, previous studies had already sought to correlate the owners interests and the compensation process of the companies' managers (Spence & Zeckhauser 1971; Ross, 1973) being therefore considered by some authors as the first works on the theory of agency (Caixe, 2012; Silva Zonatto, Lamb & Pumps, 2012).

When analyzing the increasing demand for transparency in the corporate environment, one should take into account two basic premises: if on one hand, in environments where the agency problem occurs, there is usually informational asymmetry (characterized as such when, on the occurrence of a transaction, one of the parties holds more information than the other), on the other hand, the rising of the disclosure levels addressing corporate information (disclosure) can reduce the agency costs.

The quality of corporate disclosed information helps to minimize risks and uncertainties; in this context, information technology resources play a central role in corporate governance. The adoption of information technology involving processes and business transactions directly contributes to reduce the informational asymmetry between the different

agents, providing greater access to information. When analyzing these aspects, Nascimento, Bianchi & Earth (2008) state:

> Information systems perform wider functions than the simple data storage [...]. The attributes of this control dimension make it a key piece for the maintenance of the company assets security, for the explanation and disclosure of its financial results to all those interested in it. For this reason, one can consider it one of the foundations for the achievement of best corporate governance practices and, if properly preserved, as one of the factors that enable the reduction of conflicts between the principal and the agent.

According to Batista (2004, p. 39), "[...] the purpose of using the information systems is the creation of a business environment in which the information is reliable and able to flow in the organizational structure".

3 IT GOVERNANCE

In the management models context, the IT governance emerges as a crucial instrument for conducting the IT services management because, when adopted properly, it can help the company avoid unnecessary risks. Such justification is supported by the fact that the lack of board supervision for IT activities, and similarly the lack of auditing on its financial statements books may dangerously expose the organization to risks that could be avoided.

The responsibility of IT governance is of the Administrative Council and the executives, which consists of leadership and organizational structures, the main purpose of it is to ensure the company sustenance. For this, the strategies, the objectives and the organization processes (ITGI, 2007) must be understood. Thus, it is expected that the better the corporate governance structure, the better the decisions made by the management, including those related to IT governance. Similar view is shared by Weill and Ross (2006, p. 8). For the authors, IT governance is "the specification of the decision-making rights and the responsibilities *framework* to encourage desirable behavior in the use of IT".

By offering recommendations for the IT policies development taking into account the organization's operational and strategic needs, the IT governance can contribute effectively to improve its performance and

competitive position. Researches indicate that companies with good IT governance models present better results than those of their competitors (Weill & Ross, 2006).

Over recent years, discussions on IT investment and its role in Brazilian organizations have increased substantially; this is noticeable in publications both in the academic context, as well as in those publications intended to executives and businessmen or even in publications or media reports intended to the public in general.

According to data from the survey *Predictions Brazil 2014 Top Trends* (IDC, 2014), Brazil has consolidated itself as the fourth largest IT and Telecom market in the world after the US, China and Japan: the estimation of investment in IT and Telecom in the country until the end of 2014 is around US$ 175 billion. From a strategic point of view, it is noteworthy that the mere fact that companies invest in IT does not guarantee them a competitive advantage, it is vital to become conscious about the need to break the current paradigm on the use of information technology only as an administrative support tool.

At the strategic planning process, the motivational assumptions for investments must consider the significant dependence among the organization's different sectors and hierarchical levels in relation to IT services. In this context, the IT governance concept is tied to the initiatives that aim to increase the quality and the control of services provided by IT to the company. According to Weill and Ross (2006), the IT resources involve all and any investment that aims to generate value to the business as from technological resources.

In the literature, different themes seek to relate the IT use to business productivity measures, however, there is still no consensus about the role or the productivity gains generated by investments in IT resources in organizations. If, on one hand some authors deal with the so-called IT productivity paradox (Strassman, 1990; Brynjolfsson, 1993; Gurovitz, 1997; Willcocks & Lester, 1997), on the other, there are those who defend IT as a strategic tool and aggregator of value (Cassarro, 1999; Frontini, 1999; Porter, 2001; Becker, Lunardi & Maçada, 2003); in the view of these authors, IT has evolved from a mere administrative support tool to a strategic role in the organization.

With regard to the strategic earnings associated with the IT use, on June 25, 2015 the journal *Executivos Financeiros* (Financial Executives) published a report on a financial institution which decided to invest in a solution aiming at the formalization of its employees' entrance and exit, controlling thereby the access to the system. The case study analysis shows that the decision to adopt the solution was a right one, because, in addition to allowing the integration of the payroll to the program, the institution was able to nearly eliminate the identity management inefficiency, offering guarantees that the internal processes and banking transactions were being executed only by duly authorized people. In this specific case, it can be observed that the achievement of competitive advantage as from the IT use presupposes the alignment between business strategies and the use of information technology.

Leonard (1995) argues that the information and the technology that IT provides to all sectors should be treated as strategic assets by the commercial companies and their managers. Although companies manage a number of resources, it should be considered the complexity involving IT resources used by the business from four fundamental areas: business strategy, organizational infrastructure, information technology strategy, and / or processes.

In light of the organizations complexity and the current business environment, getting information favoring an overview of the company becomes increasingly important. In a successful case reported by Microsoft without major investments, a traditional university in the state of Espírito Santo sped up its processes when it carried out the migration of its IT environment to the cloud. As the university began to be able to support access peaks to the systems and to the seasonal needs, the educational institution has enhanced its level of customer service, providing the perception of quality increase in the IT services rendered to teachers and students.

By providing the quick identification of opportunities optimization in the organization performance, and the consequent making of adjustments so that the strategic objectives are met, information technology comes to be indispensable in the current business management. Thus, IT resources start to act as a catalyst in the decision-making process.

3.1 IT GOVERNANCE MODEL: COBIT

Through the adoption of a governance model, it is expected to guarantee that the managers will be properly performing their roles. Regardless of the IT governance model adopted, through measurement, auditing and monitoring of internal and external contracts, it should be possible to control the execution and the quality of IT services rendered to the company. The *Control Objectives for Information and Related Technology* (COBIT) and the *Information Technology Infrastructure Library* (ITIL) are reference models for IT governance (Weill & Ross, 2006).

COBIT is a guide drawn up in 1994 by the *Information Systems Audit and Control Association* (ISACA) for the management and control of IT processes. ISACA is a global organization comprised of IT governance, control, security and audit professionals. This guide uses a model (framework) which provides the best practices for the processes management and information technology activities in a structured, manageable and logical way. It is important to highlight that the expression best practices adopted in this work does not necessarily mean a standard procedure to be followed, indeed, not always a best practice is the most effective way to do something, and so these practices evolve and are constantly updated.

In the current business landscape, the Internet massive use and the integration of Apps and technology among companies have become a recurring practice in supporting the business processes; this has demanded the organizations to comply with a growing number of legal and regulatory requirements. Generically, COBIT assumes that, to meet the business criteria efficiently and effectively, the information must comply with defined regulations according to information criteria or business requirements, therefore, the information policy should be adapted according to the organization's needs.

> Stakeholders require greater assurance, in other words they demand that the organizations are operating according to the laws and regulations and in accordance with good corporate governance practices in its operating environment. Furthermore, due to the fact that the IT has allowed pervasive integrated business processes across organizations, there is still a growing need to ensure that the contracts include important IT

> requirements in areas such as privacy, confidentiality, intellectual property and security. (ISACA, 2012, p. 63).

Besides incorporating international regulatory standards, COBIT, which is currently in its fifth version, has evolved when adding to its framework the contribution of technicians and professionals with specific expertise. As a differential compared to other versions, the COBIT 5 highlights the clear distinction between the governance activities and the IT management.

> The governance ensures that the needs, conditions and options of stakeholders are evaluated in order to determine agreed and balanced corporate objectives; setting the direction through the prioritization and decision-making; and monitoring the performance and compliance with the direction and the established objectives.
>
> [...] The management is responsible for the planning, development, execution and monitoring of activities in line with the direction set by the governance body in order to achieve the corporate objectives (ISACA, 2012, p. 16).

In this model, the interactions between the different players must be coordinated and cooperative. While the IT management is focused on automation and efficiency of operations and processes (covering the management of these operations and decisions to be made about the products and IT services related), the IT governance is broader and focuses on the IT strategic use. When making decisions about cost reduction, optimization of resources, benefits and risks, the governance system should take into account all stakeholders.

At this point, some elements are worth mentioning. Stakeholders may be influenced by different needs, such as strategy changes, level of business user satisfaction with the IT services, business changes and regulatory environment, as well as the need to adopt new technologies. Other point worth mentioning is that the following questions should be asked in the decision-making process: Who makes the decisions? How are the decisions and results monitored? For whom are the benefits? Who takes the risk? What resources are needed?

4 RESEARCH METHOD AND PROCEDURES

The data analyzed in this article were collected from August 30 to October 15, 2014; the data collection was made through a questionnaire, applied as an electronic *survey* with descriptive exploratory purpose and of cross-section (*cross section*). The *survey* research can be described as "the gathering of data or information about characteristics, actions or opinions of specified group of people, indicated as representative of a target population through a research tool, usually a questionnaire" (Freitas, Oliveira, Saccol & Moscarola, 2000, p. 105).

Seeking to foster the knowledge in this field, a qualitative and quantitative approach was adopted; the choice of this mixed methodology is justified by the need of structuring the work as from the content analysis and the subsequent disclosure of the data observed in quantified way.

The data collection tool used was made up of a structured questionnaire, divided into three blocks, containing:

- **creation of the IT value for the business:** with six questions on the company characterization, on the IT contribution for the profits increase, on the different relationship mechanisms and on the generation of value for the organization;
- **intellectual capital and organizational atmosphere:** with eight questions involving people, training, interpersonal communication, qualification and motivation of the IT team members;
- **measurement of IT performance:** with five questions on processes, control systems, availability, compliance with deadlines, quality and reliability in the services delivered by IT.

In the blocks it was adopted questions of *Likert* type of five points which include the options "strongly agree," "partially agree," "no opinion about it," "partially disagree" and "strongly disagree".

The instrument was submitted to a pre-test together with two experts: both are professionals who have solid experience in the field of Information Technology with expertise in implementing IT governance models and mechanisms in organizations. In the first block of the questionnaire, it was sought to measure the degree of agreement (or not)

of the IT executives surveyed regarding the different statements about the potential benefit of using the IT governance best practices.

The second block of the questionnaire was answered only by users of IT services at companies that declared that they use models of Information Technology best practices; the questions involve implemented practices and the perception of the obtained results. In this block, for some statements related to the perception of the IT importance for processes execution, it was used a scale of *Likert* type with the following response options: "not important", "little important", "indifferent", "important" and "extremely important."

In the third block of the questionnaire it was interviewed IT staff members in companies that declared that they use models of Information Technology best practices; the questions include the work environment, the upper management involvement in the processes improvement and transparency in communication. In this block, for some statements associated with the satisfaction level in performing the activities, as well as for the perception of professional valuation, it was used a scale of the *Likert* type with the following answer options: "worsened a lot", "worsened", "not changed", "little bit improved" and "improved". During the deployment or change of a technology, it is important to show systematically, the reasons and advantages, so that the IT staff members can collaborate willingly and without reluctance with the project. Seeking to identify the effectiveness of the communication channels used in the decision making process, it was adopted a transparency scale established according to the level of compliance with the predefined criteria, ranging from 0 (no criteria has been met) to 100 (full compliance):

- 0 to 20 – not transparent at all;
- 21 to 40 – little bit transparent;
- 41 to 60 – satisfactorily transparence;
- 61 to 80 – transparent;
- 81 to 100 – totally transparent.

In Chart 1, it is displayed a brief summary of the methodology used in this study.

The Research Characterization		Research Organization	
Methodological Approach	Qualitative and Quantitative	**Empirical Object**	38 companies that declared to use the IT best practices
Research Type	Exploratory Descriptive	**Number of Observations**	29 valid questionnaires (representing 21 companies)
Investigation Technique	*Survey*	**Analysis Unit**	Organizational
Collection Instrument	Questionnaire	**Observation Unit**	CIOs[1], managers, users and IT teams members
Data Analysis	Descriptive Statistics	**Observation Approach**	IT Governance and strategic alignment.
Temporal perspective	Cross-Section: at a given moment over time	**Sample Selection Criteria**	Convenience (for adhesion)

Chart 1: Methodology used in this study

It was chosen as the research's population the companies that declared that they were using the IT best practices in groups of the social network *LinkedIn*, as from the information sharing involving the company's name, the title and the e-mail. Executives, users and IT staff members were invited to access the site where the research was made available as well as to participate in the research. Of a total of 38 companies invited, 21 accepted the invitation and filled out the online questionnaire. The situation of the 38 companies after the stages of initial contact and invitation delivery is shown in Table 2.

Situation of the company	Quantity
Accepted to participate	21
Did not accepted to participate	2
Did not respond/return	15
Total	**38**

Chart 2: Initial contact and confirmation of interest

[1] CIO – Chief Information Officer

5 PRESENTATION AND DISCUSSION OF RESULTS

The sample analyzed here is of the type not probabilistic for convenience, since the participants were chosen in order to make possible the access to the survey responses. Of the 38 companies that declare to adopt better IT governance practices invited to participate in the survey, 21 accepted, obtaining thus a significant fraction for analysis, 55% of the population.

Based on the information supplied on the business characteristics, the profile of the respondents contacted in the survey is divided basically into six segments. The most representative sector of the population is the services sector, with 60%, followed by the education sector, with 20% and the healthcare, finance, broadcasting and sports association areas with 5% each. Of the 21 companies surveyed, 60% employs more than 500 people; 30% between 50 and 249 employees; and the remaining 10% of the sample are comprised of companies that employ between 20 and 49 people.

The data analyzed here were collected with a view to relate the characteristics of the studied companies with the benefits of using the IT best governance practices, especially with regard to the perception of generating value to the business. The sample is composed of 29 valid questionnaires that were completed by executives, users and members of IT teams. In only three companies (14.3%), the questionnaire was answered by a representative of each profile; in two companies, only two participants of different profiles filled out the questionnaire (9.5%); in most cases (16 companies, 76.2%) only one participant responded to the questionnaire on behalf of the company. The distribution of the respondents according to their profile is shown in Table 3.

Profile	n	%	% Accumulated
Executives	12	41,4%	41,4%
Team members	10	34,5%	75,9%
Users	7	24,1%	100%
Total	**29**	**100%**	**100%**

Chart 3: Participants profile

With regard to the quantitative data analysis, in its entirety, the executives who responded to the questionnaire positioned themselves positively with regard to the IT best practices importance aiming at

increasing the control and the quality of IT services provided to the company various sectors. Of the total of valid responses, 83.33% strongly agree and other 16.67% partially agree with this statement. Similarly, 83.33% of respondents strongly agree that the adoption of IT best practices models influence the agility and the reliability increase in the performance of business processes. With regard to 16.67% they partially agree with this statement.

With 100% of positive responses, the greatest degree of business dependence in relation to the IT area was considered by the executives as a determining factor for companies to adopt the IT governance models (66.67% of the respondents strongly agreed and the remaining 33.33% agreed with the statement on the subject).

With respect to the executives' opinion on the contribution of IT best governance practices for increasing the company's profits, 50% of the respondents strongly agree and 41.67% partially agree with this statement, which results in a total of 91.67% of agreement. There were no negative responses regarding this question and only 8.33% of respondents indicated that they had no opinion about it.

With regard to the different mechanisms of relationship and of value generating for the organization, 58.33% of the executives state that the IT staff members were subjected to inter-functional training between IT and businesses in the last 12 months; according to 16.66% of the respondents executives, over the last 12 months, the management board and functional and departmental managers have undergone formal training in IT governance; and in 25% of the cases over the last 12 months, no hierarchical level has got trained. When questioned on the existence of a formal program aimed at the ITIL / COBIT certifications, although 16.67% of executives have responded that this formal program does not exist and that they do not have the intention to develop this program, in the large majority of cases (83.33%) the executives have stated that, although there is no formal program, they intend to develop it.

From the qualitative data analysis, it is possible to notice that there is a trend, among the executives, of directly relating the adoption of IT governance best practices models to the estimated costs and benefits, however, despite the awareness of the importance of IT governance for

generating value for the business, the initiatives aimed at the inter-functional training and qualification of employees have proven to be quite timid.

Although companies manage multiple resources, maturity in the corporate governance and maturity of the main IT assets varies significantly in the main organizations. It is important to remember that having the best tools is not sufficient for the company; in the effective monitoring, three aspects must be considered altogether: people, processes and technologies. In this respect, the lack of knowledge updating on the part of the employees about management processes, techniques, procedures and decisions related to IT can expose the company to unnecessary risks. To ensure that IT provides value to the business, organizations need to develop essential skills to enable comparisons and to balance the use of limited resources (Farbey, Land & Targett, 1992). It is noteworthy that the results presented derive from facts that were described, but not observed, so it is possible that executives have reported a level of maturity that they would like to have or are about to achieve, as opposed to what they have already reached. An empirical validation would be required to verify the accuracy of this hypothesis.

In the second set of questions, it was sought to identify the perception of the IT staff members on themes involving intellectual capital and organizational atmosphere of the companies surveyed. Of the total valid responses provided 50% of respondents stated that the company they work for has IT governance mechanisms implemented for over five years; on the other hand, 30% of respondents stated that the company they work for has IT governance mechanisms implemented for about one to three years, and 20% said that the company they work for has IT governance mechanisms implemented between three and five years.

Asked about how they would classify the upper management involvement in an attempt to improve the organization internal processes, 60% of the respondents rated the upper management as not very active; 30% as active; and the other 10% as very active.

As to the technology changings, the IT staff members were asked to rate the transparency degree in the decision-making process of the upper management with regard to them. Of the total of valid responses 50% of

the respondents considered the transparency degree in the decision making process as satisfactory; in the opinion of 40% of the respondents the decision-making process is transparent; and 10% considered this process as little bit transparent. If on one hand there was no response stating that the decision-making process is totally unclear, on the other hand there were no reports stating that the decision-making process is completely transparent.

When questioned on the demand of the ITIL / COBIT certifications for the IT staff members and / or project managers, of the total respondents, 60% said that, although they are seen as a differential, the certifications are not required; 20% said that certifications are not required, bringing the total to 80% of negative perceptions about it. However, a significant number of respondents (20%) say that the ITIL and / or COBIT certifications are prerequisites in the organizations where they work.

Among the benefits granted by the adoption of IT governance mechanisms, the professional growth opportunity is pointed out by IT teams' members as one of the leading gains in the workplace. Of the respondents, 50% said that the professional opportunity for growth improved; for 30% of the respondents there was little improvement, bringing the total to 80% of positive perceptions about it. However, a significant portion of the respondents disagrees with this statement. For 20% of the respondents, there was no change in this scenario. It is noteworthy that, although there are quite divergent views, there was no record of any case of decline in this respect.

When asked about the satisfaction level when exercising the professional activities after the adoption of IT governance mechanisms, there were no differences in responses among the IT teams' members. 80% of respondents claim that their satisfaction level has improved and 20% admit little improvement in their satisfaction level.

It is worth noting that the capacity of innovation and responses to change in the IT environment depends largely on their teams work routine. Thus, the renewal of the work processes is directly linked to the company's ability to generate organizational competencies based on the individual competences. Another point to be considered is that the involvement, transparency, the liability and the integration of employees with the upper

management are success factors for the correct mapping, design and alignment of processes.

In the third block formed by questions concerning the IT performance, of the total of the seven valid questionnaires representing the users of IT services, although there have been no answers about decline in the services quality, whereas 42.86% of respondents stated that the quality of IT services improved after the adoption of governance mechanisms, for other 57.14% the quality has improved little.

Asked about the importance of corporate culture and the control and monitoring systems in aiding the business processes execution, 71.43% of respondents consider it important; 14.29% consider it extremely important; and 14.29%, consider it as being of little importance. There were no reports of IT services users who consider this matter as one without any importance at all.

Regarding the improvement in meeting deadlines, taking into account the *before* and the *after* of the IT governance mechanisms adoption, 74.43% of respondents said that there was little improvement in this scenario, while for other 28.57% the scenario has improved.

Asked about the confidence level in the services delivered by IT after the IT governance mechanisms adoption, 42.86% of respondents stated that it has improved only a little bit; for 42.86% it has improved; and other 14.29% said that nothing has changed after the IT governance mechanisms adoption.

Regarding the opinion of IT users about the importance of training, experience, judgment and intelligence of the IT team members for the efficient and effective implementation of the company routine processes, from the total respondents, 71.43% consider these factors highly important and 28.57% rated them as important.

The answers offered by the IT services users have shown that, although the significant majority of respondents declare that the corporate culture and the control and monitoring systems contribute to the business processes execution, it is clear that not everyone has the perception of the gains provided by the IT governance mechanisms adoption. According to Dutra (1996), however, when the individual realizes that the desired results

are being achieved he gets more satisfied with himself and his activities, and this satisfaction is transferred to his work.

Moreover, the information about users' satisfaction levels are an important indicator for the companies committed to the IT services quality, contributing with the continuous improvement of its processes and hence to its customers satisfaction, both internal and external customers.

6 FINAL CONSIDERATIONS

Due to the fact that the business area is increasingly dependent on the information technology (IT), the strategic use of these resources becomes necessary and, so that it meets all the organization levels, integrated actions is necessary, since, when focusing on the organization tactical sphere, actions are limited to solving immediate problems and of little coverage.

Thus, the results of the study showed that the indices related to the involvement of upper management in an attempt to improve the organization internal processes, the majority of it are falling short of the indices expected by the market. It is inferred that this finding may be related to the fact of the little improvement in meeting deadlines realized by the IT services users.

In another analysis, it was also found that the variables training and interpersonal communication have not been well evaluated, such variables presented correlation with the satisfaction degree of the services users and IT team members with regard to the services quality and the transparency levels. It is therefore likely that if there is an increase in the training across sectors and, in addition, if, in the decision-making process, the transparency level rises, there will be an impact, in a positive way, on the organization performance, and therefore the company will enhance its service levels and, consequently, there will be an increase in the satisfaction of the different stakeholders, who belong to this organization. It is worth mentioning that the training factor was one of the items that presented higher number of significant correlations with the evaluated constructs.

As limitations of this research, it is highlighted the nature of the study, the sample size and the return rate (55%). Due to the sample

reduced size, it is not possible to generalize the results, limiting them to 21 companies analyzed. Further important limitation refers to the operationalization of the variable perception of generation of value to the business, it is worth noting that in only three of the 21 companies participating in the *survey* research, representatives of the three distinct profiles responded to the survey; in the vast majority of the cases (16 companies, 76.2%), only one participant from each profile answered the questionnaire on behalf of the company.

Finally, a positive aspect of this study lies in the fact that the results obtained throughout the research lead to the understanding that human assets are configured among the ones that needs governance the most. Thus, in environments where specialized human assets are essential to the efficient and effective processes implementation, to satisfy the contracting party and the services users with respect to *performance* is something difficult to achieve.

These observations point out to the need of developing a future study with a larger sample. The deepening in future investigations may contribute to elucidate how the points related to the low level of transparency in the decision making process of implementation or change in technology can impact the agility of results delivering in high-*performance* teams.

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