

# Information Systems and Technology Management 2

Marcos William Kaspchak Machado  
(Organizador)





Marcos William Kaspchak Machado

(Organizador)

# Information Systems and Technology Management 2

Atena Editora  
2019

2019 by Atena Editora

Copyright © da Atena Editora

**Editora Chefe:** Profª Drª Antonella Carvalho de Oliveira

**Diagramação e Edição de Arte:** Lorena Prestes e Karine de Lima

**Revisão:** Os autores

### Conselho Editorial

- Prof. Dr. Alan Mario Zuffo – Universidade Federal de Mato Grosso do Sul  
Prof. Dr. Álvaro Augusto de Borba Barreto – Universidade Federal de Pelotas  
Prof. Dr. Antonio Carlos Frasson – Universidade Tecnológica Federal do Paraná  
Prof. Dr. Antonio Isidro-Filho – Universidade de Brasília  
Profª Drª Cristina Gaio – Universidade de Lisboa  
Prof. Dr. Constantino Ribeiro de Oliveira Junior – Universidade Estadual de Ponta Grossa  
Profª Drª Daiane Garabeli Trojan – Universidade Norte do Paraná  
Prof. Dr. Darllan Collins da Cunha e Silva – Universidade Estadual Paulista  
Profª Drª Deusilene Souza Vieira Dall’Acqua – Universidade Federal de Rondônia  
Prof. Dr. Eloi Rufato Junior – Universidade Tecnológica Federal do Paraná  
Prof. Dr. Fábio Steiner – Universidade Estadual de Mato Grosso do Sul  
Prof. Dr. Gianfábio Pimentel Franco – Universidade Federal de Santa Maria  
Prof. Dr. Gilmei Fleck – Universidade Estadual do Oeste do Paraná  
Profª Drª Girlene Santos de Souza – Universidade Federal do Recôncavo da Bahia  
Profª Drª Ivone Goulart Lopes – Istituto Internazionele delle Figlie de Maria Ausiliatrice  
Profª Drª Juliane Sant’Ana Bento – Universidade Federal do Rio Grande do Sul  
Prof. Dr. Julio Candido de Meirelles Junior – Universidade Federal Fluminense  
Prof. Dr. Jorge González Aguilera – Universidade Federal de Mato Grosso do Sul  
Profª Drª Lina Maria Gonçalves – Universidade Federal do Tocantins  
Profª Drª Natiéli Piovesan – Instituto Federal do Rio Grande do Norte  
Profª Drª Paola Andressa Scortegagna – Universidade Estadual de Ponta Grossa  
Profª Drª Raissa Rachel Salustriano da Silva Matos – Universidade Federal do Maranhão  
Prof. Dr. Ronilson Freitas de Souza – Universidade do Estado do Pará  
Prof. Dr. Takeshy Tachizawa – Faculdade de Campo Limpo Paulista  
Prof. Dr. Urandi João Rodrigues Junior – Universidade Federal do Oeste do Pará  
Prof. Dr. Valdemar Antonio Paffaro Junior – Universidade Federal de Alfenas  
Profª Drª Vanessa Bordin Viera – Universidade Federal de Campina Grande  
Profª Drª Vanessa Lima Gonçalves – Universidade Estadual de Ponta Grossa  
Prof. Dr. Willian Douglas Guilherme – Universidade Federal do Tocantins

#### **Dados Internacionais de Catalogação na Publicação (CIP) (eDOC BRASIL, Belo Horizonte/MG)**

143 Information systems and technology management 2 [recurso eletrônico] / Organizador Marcos William Kaspchak Machado. – Ponta Grossa (PR): Atena Editora, 2019. – (Information Systems and Technology Management; v. 2)

Formato: PDF

Requisitos do sistema: Adobe Acrobat Reader

Modo de acesso: World Wide Web

ISBN 978-85-7247-202-9

DOI 10.22533/at.ed.029191903

1. Gerenciamento de recursos de informação. 2. Sistemas de informação gerencial. 3. Tecnologia da informação. I. Machado, William Kaspchak. II. Série.

CDD 658.4

**Elaborado por Maurício Amormino Júnior – CRB6/2422**

O conteúdo dos artigos e seus dados em sua forma, correção e confiabilidade são de responsabilidade exclusiva dos autores.

2019

Permitido o download da obra e o compartilhamento desde que sejam atribuídos créditos aos autores, mas sem a possibilidade de alterá-la de nenhuma forma ou utilizá-la para fins comerciais.

[www.atenaeditora.com.br](http://www.atenaeditora.com.br)

## APRESENTAÇÃO

A obra denominada “*Information Systems and Technology Management*” contempla dois volumes de publicação da Atena Editora. O volume II apresenta, em seus 26 capítulos, um conjunto de estudos sobre a aplicação da gestão do conhecimento aos processos de gestão organizacional, operacional e de projetos.

As áreas temáticas de gestão organizacional e de projetos mostram a importância da aplicação dos sistemas de informação e gestão do conhecimento na cultura organizacional e no desenvolvimento de novos projetos.

Este volume dedicado à aplicação do conhecimento como diferencial competitivo para inovação em processos produtivos, traz em seus capítulos algumas aplicações práticas de levantamento de dados, gestão da cultura e governança empresarial, além de ferramentas de monitoramento da qualidade da informação.

Aos autores dos capítulos, ficam registrados os agradecimentos do Organizador e da Atena Editora, pela dedicação e empenho sem limites que tornaram realidade esta obra que retrata os recentes avanços científicos do tema.

Por fim, espero que esta obra venha a corroborar no desenvolvimento de novos, e valiosos conhecimentos, e que auxilie os estudantes e pesquisadores na imersão em novas reflexões acerca dos tópicos relevantes na área de gestão do conhecimento e aplicações dos sistemas de informação para formação de ambientes cada vez mais inovadores.

Boa leitura!

Marcos William Kaspchak Machado

## SUMÁRIO

<b>CAPÍTULO 1</b> .....	<b>1</b>
MODELAGEM NO PROCESSO DE LEVANTAMENTO DE REQUISITOS UTILIZANDO A GESTÃO DO CONHECIMENTO: ESTUDO DE CASOS	
Ivan Fontainha de Alvarenga	
Fernando Hadad Zaidan	
Wesley Costa Silva	
Carlos Renato Storck	
Thiago Augusto Alves	
<b>DOI 10.22533/at.ed.0291919031</b>	
<b>CAPÍTULO 2</b> .....	<b>22</b>
A INTERNALIZAÇÃO DO CONHECIMENTO COMO MEDIDA EFETIVA DE RESULTADOS DE TRANSFERÊNCIA DE CONHECIMENTO INTERFIRMAS: A PROPOSTA DE UM FRAMEWORK TEÓRICO	
Luciana Branco Penna	
José Márcio de Castro	
<b>DOI 10.22533/at.ed.0291919032</b>	
<b>CAPÍTULO 3</b> .....	<b>37</b>
THE ECONOMICS OF APIS	
Anaury Norran Passos Rito	
José Carlos Cavalcanti	
<b>DOI 10.22533/at.ed.0291919033</b>	
<b>CAPÍTULO 4</b> .....	<b>52</b>
IT GOVERNANCE AND ORGANIZATIONAL CULTURE: A BIBLIOGRAPHICAL REVIEW OF STUDIES CARRIED OUT AND PUBLISHED	
José Luis de Medeiros Sousa	
Enio Tadashi Nose	
Luiz Gustavo Argentino	
Alessandro Marco Rosini	
<b>DOI 10.22533/at.ed.0291919034</b>	
<b>CAPÍTULO 5</b> .....	<b>64</b>
GESTÃO DE PESSOAS E CULTURA ORGANIZACIONAL: UM ESTUDO DE CASO NA CENTENÁRIA FUNDAÇÃO VISCONDE DE CAIRU/BAHIA	
Tiago Dias Rocha	
Isac Pimentel Guimarães	
Antonio Carlos Ribeiro da Silva	
<b>DOI 10.22533/at.ed.0291919035</b>	
<b>CAPÍTULO 6</b> .....	<b>79</b>
SISTEMA DE GESTÃO DOS RECURSOS DA UNIÃO – NOVA PLATAFORMA TECNOLÓGICA DE GOVERNANÇA	
Luiz Lustosa Vieira	
Ilka Massue Sabino Kawashita	
José Antônio de Aguiar Neto	
<b>DOI 10.22533/at.ed.0291919036</b>	

<b>CAPÍTULO 7 .....</b>	<b>101</b>
APIS AND MICROSERVICES	
Anaury Norran Passos Rito	
José Carlos Cavalcanti	
<b>DOI 10.22533/at.ed.0291919037</b>	
<b>CAPÍTULO 8 .....</b>	<b>122</b>
AUDITORIA INTERNA E A MANUTENÇÃO DO CONTROLE INTERNO: UM ESTUDO DE CASO EM UMA EMPRESA DO RAMO DO AGRONEGÓCIO	
Pamela Florencio da Silva	
Adélia Cristina Borges	
Bassiro Só	
Roberto Carlos da Silva	
<b>DOI 10.22533/at.ed.0291919038</b>	
<b>CAPÍTULO 9 .....</b>	<b>137</b>
CULTURA DE GERENCIAMENTO DE PROJETOS DE TI E A ESTRUTURA ORGANIZACIONAL	
Mônica Mancini	
Edmir Parada Vasques Prado	
<b>DOI 10.22533/at.ed.0291919039</b>	
<b>CAPÍTULO 10 .....</b>	<b>150</b>
DIRETRIZES PARA UM MODELO ÁGIL DE GOVERNANÇA, GESTÃO E MATURIDADE DA SEGURANÇA DA INFORMAÇÃO	
Gliner Dias Alencar	
Alcides Jeronimo de Almeida Tenorio Junior	
Hermano Perrelli de Moura	
<b>DOI 10.22533/at.ed.02919190310</b>	
<b>CAPÍTULO 11 .....</b>	<b>167</b>
A INFLUÊNCIA DO <i>LEAN SOFTWARE DEVELOPMENT</i> NA ENGENHARIA DE REQUISITOS DE SOFTWARE	
Eliana Santos de Oliveira	
Marília Macorin de Azevedo	
Antonio Cesar Galhardi	
<b>DOI 10.22533/at.ed.02919190311</b>	
<b>CAPÍTULO 12 .....</b>	<b>177</b>
THE CONCEPTUAL DEVELOPMENT OF THE AGILE GOVERNANCE THEORY	
Alexandre J. H. de O. Luna	
Philippe Kruchten	
Hermano P. de Moura	
<b>DOI 10.22533/at.ed.02919190312</b>	
<b>CAPÍTULO 13 .....</b>	<b>202</b>
DEFINITIONS FOR AN APPROACH TO INNOVATIVE SOFTWARE PROJECT MANAGEMENT	
Robson Godoi de Albuquerque Maranhão	
Marcelo Luiz Monteiro Marinho	
Hermano Perrelli de Moura	
<b>DOI 10.22533/at.ed.02919190313</b>	

<b>CAPÍTULO 14</b> .....	<b>221</b>
GESTÃO DO CONHECIMENTO EM PROJETOS DE MANUFATURA ENXUTA: ANÁLISE BIBLIOMETRICA 2007-2017	
Rosenira Izabel de Oliveira Fernando Celso de Campos	
<b>DOI 10.22533/at.ed.02919190314</b>	
<b>CAPÍTULO 15</b> .....	<b>234</b>
SELEÇÃO E PRIORIZAÇÃO DE PROJETOS: COMO AS ORGANIZAÇÕES DEFINEM CRITÉRIOS	
Ana Claudia Torre Rosária de Fátima Macri Russo	
<b>DOI 10.22533/at.ed.02919190315</b>	
<b>CAPÍTULO 16</b> .....	<b>249</b>
ANÁLISE PARA INCORPORAÇÃO DE UM PROCESSO DE SUSTENTABILIDADE EM UM FRAMEWORK DE GOVERNANÇA DE TI	
Cecilia Emi Yamanaka Matsumura Mauro Cesar Bernardes	
<b>DOI 10.22533/at.ed.02919190316</b>	
<b>CAPÍTULO 17</b> .....	<b>294</b>
PEOPLE AND INFORMATION SECURITY: AN INSEPARABLE BOUNDARY	
Camila Márcia Silveira Teixeira Jorge Tadeu Neves	
<b>DOI 10.22533/at.ed.02919190317</b>	
<b>CAPÍTULO 18</b> .....	<b>307</b>
A MULTI-MODEL APPROACH FOR PROVISION OF SERVICES THE INFORMATION TECHNOLOGY FOR FEDERAL PUBLIC ADMINISTRATION BRAZILIAN	
Luiz Sérgio Plácido da Silva Suzana Cândido de Barros Sampaio Renata Teles Moreira Alexandre Marcos Lins de Vasconcelos	
<b>DOI 10.22533/at.ed.02919190318</b>	
<b>CAPÍTULO 19</b> .....	<b>316</b>
MODELOS DE BUSCA, ACESSO E RECUPERAÇÃO DA INFORMAÇÃO NA WEB DE DADOS – ESTUDOS DE USUÁRIOS DA INFORMAÇÃO	
Francisco Carlos Paletta Ligia Capobianco	
<b>DOI 10.22533/at.ed.02919190319</b>	
<b>CAPÍTULO 20</b> .....	<b>329</b>
PERFSONAR: AN INFRASTRUCTURE FOR QUALITY MONITORING OF COMPUTER NETWORKS OVER THE INTERNET	
Priscila da Silva Alves Gutemberg Soares da Silva	
<b>DOI 10.22533/at.ed.02919190320</b>	

<b>CAPÍTULO 21</b> .....	<b>345</b>
SOFTWARE AHP SMART CHOICE: UMA FERRAMENTA DE ESTUDO DO MÉTODO AHP	
Alexandre Mendes Rodrigues Ivan Carlos Alcântara de Oliveira	
<b>DOI 10.22533/at.ed.02919190321</b>	
<b>CAPÍTULO 22</b> .....	<b>361</b>
CCI – COMPETÊNCIAS COGNITIVAS INTEGRADAS PARA INCORPORAÇÃO DE TECNOLOGIA NOS PROCESSOS EDUCACIONAIS	
João Carlos Wiziack Vitor Duarte dos Santos	
<b>DOI 10.22533/at.ed.02919190322</b>	
<b>CAPÍTULO 23</b> .....	<b>379</b>
INCLUSÃO DIGITAL DOS SUJEITOS DA EDUCAÇÃO DE JOVENS E ADULTOS (EJA): UMA ANÁLISE SOB A PERSPECTIVA DA TEORIA INSTITUCIONAL	
Eliane Apolinário Vieira Avelar Ewerton Alex Avelar Alcenir Soares dos Reis	
<b>DOI 10.22533/at.ed.02919190323</b>	
<b>CAPÍTULO 24</b> .....	<b>391</b>
TRABALHO PRECÁRIO E SALÁRIO DOS BIBLIOTECÁRIOS NO NORTE E NORDESTE BRASILEIRO: DESVENDANDO RELAÇÕES DE CLASSE E GÊNERO	
Maria Mary Ferreira	
<b>DOI 10.22533/at.ed.02919190324</b>	
<b>CAPÍTULO 25</b> .....	<b>409</b>
GERADOR DE TENSÃO DE PELTIER	
Gabriel Muniz de Almeida Glória Denise Claro da Silva Alessandro Corrêa Mendes	
<b>DOI 10.22533/at.ed.02919190325</b>	
<b>CAPÍTULO 26</b> .....	<b>415</b>
UMA REFLEXÃO SEMÂNTICA SOBRE A CANÇÃO “PACIÊNCIA” DE LENINE E DUDU FALCÃO	
Ivaldo Luiz Moreira	
<b>DOI 10.22533/at.ed.02919190326</b>	
<b>SOBRE O ORGANIZADOR</b> .....	<b>429</b>



## IT GOVERNANCE AND ORGANIZATIONAL CULTURE: A BIBLIOGRAPHICAL REVIEW OF STUDIES CARRIED OUT AND PUBLISHED

### **José Luis de Medeiros Sousa**

Centro Universitário das Faculdades  
Metropolitanas Unidas, SP, Brazil  
E-mail: joseluis.sousa@ig.com.br

### **Enio Tadashi Nose**

Centro Universitário das Faculdades  
Metropolitanas Unidas, SP, Brazil  
E-mail: noseenio@uol.com.br

### **Luiz Gustavo Argentino**

Centro Universitário das Faculdades  
Metropolitanas Unidas, SP, Brazil  
E-mail: l.argentino@gmail.com

### **Alessandro Marco Rosini**

Centro Universitário das Faculdades  
Metropolitanas Unidas, SP, Brazil  
E-mail: alessandro.rosini@fmu.br

**ABSTRACT:** The objective of this article is to carry out a bibliographic study, which intends to identify the impact that the organizational culture has within the IT governance, measuring the growth of the articles in the dissemination of information in scientific journals in Sciello and SPELL databases. The research method used in this study Was the comparison of 18 articles searched in the databases through the keyword “IT Governance and Culture” applied to the title and summary of the periodicals. In the complete analysis of the results, the article verified that the analyzes carried out in the NVIVO

Software 11, coincide with the theoretical basis of this work, aligning points that demonstrate that there is a direct relationship between Organizational culture and IT Governance, and strong evidence was found to exist The need for alignment of such points so that there is a correct functioning of the system and for there to be greater transparency in the information and constant perpetuity of the business. The article concludes that Organizational Culture and IT Governance are directly linked and influence each other within companies.

**KEYWORDS:** IT Governance, Culture, NVIVO

### 1 | INTRODUCTION

The area of information technology (IT) is present in companies’ daily life, and it tends to be one of the most important areas, directly influencing the organizational culture, which leads us to this research on articles that show the impacts That an organization’s organizational culture has in IT governance. Boeckmann and Andrade (2006) argue that the process of computerization causes cultural impacts within an organization.

Given this scenario, it should be understood how corporate culture is constituted and how they impact IT governance. Hofstede (1984)

and Schein (1986) define organizational culture as a set of elements that define the functioning of a specific organization, since Fleury (1987) believes that the values and beliefs of individuals should be against the organization's culture.

Business culture is formed by individuals with their beliefs and values and also by the elements that make it work, as Schein (1992) defined culture as a set of basic assumptions involving people who interact by pursuing their goals and pursuing corporate goals. Hofstede and Minkov (1984) define organizational culture as a collective programming of a group of people influenced by standards, values and beliefs.

With a differentiated view, Bio (1996) shows that the organizational culture is influenced by the leaderships of the companies. Given this scenario, companies have the need for managers to have their organizational culture to disseminate it to employees. Using the two concepts of Hofstede and Minkov and Bio, we have that the organizational culture of the companies is centered in its collaborators.

The IT governance area that emerged in the 1990s (Loh, 1993) is new, but also one of the areas with the greatest investment, since it must accompany the technological development of the market where the company is located and show us that the implementation Of IT governance can increase business profitability (Lunardi, Becker & Maçada, 2012).

Chin, Brown and Hu (2004) show the importance and influence of Organizational Culture in the definition and structuring of IT Governance. Due to this relationship, the article aims to show the importance of culture within IT governance.

These differentiated visions help to understand that the strategy must be oriented to define form of thought and actions, influencing the culture of the companies (Geertz, 1989). IT governance seeks to use this influence in ways of thinking so that the organizational culture helps in its implementation.

The study is justified because business culture can make it difficult to implement new technologies, and with the increase of technologies involved in the development of companies' daily lives, companies depend on them to achieve the expected results.

The study has as main academic contribution the measurement of the growth of articles relating to the topics organizational culture and IT governance.

The objective of this article is to carry out a bibliographic study, which intends to identify the impact that organizational culture has within IT governance, measuring the growth of articles in the dissemination of information in scientific journals in Sciello and SPELL databases.

## **2 | LITERATURE REVIEW**

The term Governance comes from the Government and implies different interpretations. According to Garcia (2005), Governance is the way in which power is exercised in the administration of a country's social and economic resources for

development, and the capacity of governments to plan, formulate and plan policies and perform functions. The term Governance can be understood as the organ to which the general administrative conduct of a country or an organization is responsible or can be understood as measures adopted by the Government of a Nation to govern the country in question (Tricker, 2015). Also according to Tricker (2015) Governance can be exercised in a country, or organization, and its principles are valid regardless of their objectives. The principles of Governance are currently applied in companies in order to establish greater transparency and accountability to organizations.

The term Corporate Governance was used with greater emphasis from the early 1990s in developed countries, with the aim of defining rules of conduct within organizations, in order to ensure a knowledge of the stakeholders of the conditions that guarantee a State Efficient (Garcia, 2005).

There are several definitions on Corporate Governance. According to Cadbury (1992), Corporate Governance is the system by which companies are managed and controlled, defined by the boards of directors which are responsible for the management of their companies and the role of shareholders. Among its functions is to appoint managers and auditors to make sure that there are adequate structures in the company to guarantee the interests of the shareholders. Directors' responsibilities include establishing strategic business objectives, providing the leadership to put them into practice, overseeing business management, and reporting to shareholders. The actions of the Board of Directors are subject to legislative, regulatory and shareholders' provisions in the general meeting.

According to the Brazilian Institute of Corporate Governance (IBGC) (2013), Corporate Governance is the relationship between managers of companies, directors and shareholders and institutions that save and invest their capital to obtain a return, attributing to the Board of Directors the Responsibility for the pursuit of corporate objectives and that the corporation itself is in compliance with the Law and the regulations of the Government. Corporate Governance is a key element in improving efficiency and economic growth, as well as increasing investor confidence, involving a set of relationships between the management of a company, its Board of Directors, its shareholders and other stakeholders. Corporate governance also provides the structure through which the company objectives are set, and the means to achieve these objectives and to monitor their performance, establishing how organizations are managed, monitored and encouraged the involvement of the following stakeholders: owners , Board of Directors, Board of Executive Officers and control bodies (IBGC, 2013).

Good Corporate Governance practices translate principles into objective recommendations, aligning interests with the purpose of preserving and optimizing the value of the organization.

The term IT governance emerged in the early 1990s and was conceptualized in two ways (Loh, 1993). First the term was used as the way to show how the IT

interaction should be with the business relations of the company. Second, in a more comprehensive way, it involves structural mechanisms that are used to obtain the capabilities required by IT. Second (Bowen et al., 2007) IT governance involves much more than the emphasis on structure, also involves an emphasis on processes. In this way IT Governance can be understood as a responsibility of the executives and the management, constituted by the leadership, organizational structures and processes that guarantee the sustainability of the organization's IT, and that extends to the corporate goals and strategies (Isaca, 2015). IT Governance, Second Luciano and Wiedenhöft (2015) can be understood in three aspects. First, compliance, in which the company needs to be to maintain or extend a condition that is fundamental to its operation, with a focus on responsibility. Second, performance, in order to align IT with organizational strategies, focusing on resource utilization and value creation. Third, Behavioral, with the use of IT focusing on the perennality of the organization and the fulfillment of its social role.

Lunardi et al. (2014) have found that companies that have adopted IT governance practices have improved performance, particularly in terms of profitability. Wu, Straub, and Liang (2015) affirm that the alignment between strategic planning and IT Governance is very positive for organizational performance.

It should be noted that there is a difference between management and IT Governance. According to Peterson (2004), the former has an emphasis on the internal supply of IT services and products, and on the management of the organization's current operations. While the latter is broader and focuses on the execution and transformation of IT to meet the demands of the business.

There is a difference between management and IT Governance. According to Peterson (2004), IT management has an emphasis on providing internal IT services and products, and managing the organization's current operations, while IT governance is much broader and focuses on the execution and transformation of IT to meet to business demands. According to Weill and Ross (2004) IT Governance determines who should make decisions and IT Management is the process of creating and implementing decisions. For Peterson (2004) IT Management is focused on the services and products provided by IT as well as in its operations, since IT Governance has a much broader responsibility than IT Management and is focused on realizing and transforming IT organization to better meet the present and future, business demands (internal) and business (external) customers.

Individuals have their own characteristics, each of which has its own performance, companies in turn, with responsibilities and economic and social objectives, are also endowed with their own characteristics that differ from each other. This differentiation among companies is a consequence of their organizational culture, which impacts their performance (Santos, 1992).

Culture, proper to the human being, is extremely complex and involves the study of various branches of knowledge. According to Fleury (1996) there are three branches



of knowledge very important for the understanding of culture: Anthropology, Sociology and Psychoanthropology.

Anthropology, as science is expressed According to Marconi and Presotto (1989) as follows: “As a science of humanity, it is concerned with knowing the human being in its entirety scientifically.” Kuper (1978) defines Anthropology in the form of schools of thought namely: Evolutionism that always takes into account the development of culture dependent on previous phases; Diffusionism that represents the interaction between cultures; Functionalism that emphasizes the identification with values and beliefs; Configurationism that takes into account meanings; And Structuralism that understands culture as a structure of interaction, both within the group with individuals, as with the group and society.

Psychoanthropology has the vision of looking from the individual to the group. Individual culture, beliefs, images, tend to influence the group as a whole. For Psychoanthropology culture can be affected by individual experiences that can affect group behavior.

According to Bio (1996) the organizational culture is influenced by the company leaders, more specifically the owners and managers who impose their personal convictions as a consequence of their authority. For Fleury (1987) the culture of the company determined by the values and beliefs shared by the individuals of an organization must meet the other aspects of that organization, ie, technology, structure, leadership style, hierarchy, etc.

For Schein (1992) organizational culture is a set of basic assumptions involving a group of people with individual beliefs and values, who interact with each other, influencing each other, in the search for solutions to achieve their goals.

According to Hofstede (1984) and Schein (1986) organizational culture is defined as a set of elements that define the functioning of a specific organization. Hofstede and Minkov (1984) define organizational culture as a “collective programming” that distinguishes one group of people from another group of people, influenced by standards, values and beliefs. Organizational culture is influenced by the culture of the Country of Regional culture. From local culture and is a set of beliefs, values, myths, meanings, rites, etc. Which are shared by members of an organization.

Organizational culture influences both positively and negatively the success of organizations. Positive influence manifests itself through the motivation of its employees, which is the consequence of interaction. The culture of the company must be oriented to motivation, which must be aligned with the company’s strategy in order to enable the understanding of its objectives. According to Geertz (1989), the strategy must be oriented to define forms of thought and action influencing the culture, giving rise to collective preferences within the organization.

There are several studies relating Organizational Culture to IT Governance. Brown and Magill (1994) emphasize ten factors for the adoption of IT Governance, including Organizational Culture as one of the elements. Brown and Grant (2005)

emphasize the importance of Organizational Culture in the definition of IT Governance, as do Chin, Brown and Hu (2004), who discuss the influence of Organizational Culture on IT Governance structures. Robinson (2005) stresses the importance of excellence in terms of IT, and it is necessary to establish a good model of IT Governance in line with Organizational Culture of corporate governance. Neela and Mahoney (2003) deal with Organizational Culture as a powerful influencer in the success or failure of IT Governance mechanisms. Also, Dallas and Bell (2004), discuss the role of IT Governance and emphasize the relevance of the analysis of Organizational Culture in the definition of its mechanisms. El-Mekawy, Rusu and Perjons (2014) support an alignment of IT and business areas presenting the impact on Organizational Culture, showing as a result of the research the existence of a clear interrelationship between IT and business, which impacts In Organizational Culture.

### **3 | METHODOLOGY**

The article was developed by means of a survey of scientific articles that deal with IT Governance and Organizational Culture. The papers were confronted by specific software for this purpose, together with the content analysis technique, were finding the points highlighted in each article and key words that characterize the study of those articles.

The libraries used for the confronted articles database were Scielo (Scientific Electronic Library Online) and Spell (Scientific Periodicals Electronic Library), both are important database of scientific and journal articles data were encontrados<sup>18</sup> researched articles in the databases, By means of the key word “IT Governance and Culture” applied to the title and summary of the periodicals.

The confrontation between these articles was done through specific software for this purpose, finding the highlights in each article and key words that characterize the study of these articles. The software used will be NVIVO 11, a qualitative data analysis system that supports the analysis of qualitative and varied research. It was developed to collect, analyze, and organize the content of interviews, open research responses, scientific journal articles, social media, and internet content (Qsrinternational, 2016). By means of this tool the article intends to demonstrate the situations found in the researched data.

### **4 | RESULTS**

Through analyzed data, the article verified that all the issues addressed in the theoretical framework should be fully aligned so that there is harmony between the cases studied, since a good organizational culture connected to information technology are

fundamental for the success and survival of an institution , IT Governance according to PRASAD; Heales and Green (2010) contains in its objective, institutional and strategic aspects of a business, relating to information technology and its stakeholders.

The relationship between IT Governance and Stakeholders according to Brown and Grant (2005), is the IT Governance plays a key role in transparency assurance process the information of organizations as a way to meet the demands of stakeholders,

The analysis in NVIVO 11, showed a total correlation between the points cited in this study, bringing tables that link the bibliographies searched.

According to the analysis performed in figure 1, the article created in NVIVO 11 two nodes containing the words “Culture and Governance”, the result was a direct correlation between all the articles, based on the context of the need for harmony between the two points so that there is A correct functioning of all practices that involve the Governance process.

According to Fleury (1987), company culture determined by the values and beliefs shared by the individuals of an organization must meet the other aspects of that organization, ie, technology, structure, leadership style, hierarchy, etc.

In Figure 2, a research was carried out based on the word “Culture” and the result obtained was a direct relation between the constructs based on the theory of this study.

Through the analysis of all the articles, it was verified the need of alignment between the Organizational Culture with all the other aspects of the organization so that there is synergy of the processes and consequently the success of the organization.

According to Schein (1992), organizational culture is a set of basic presuppositions involving a group of people with individual beliefs and values, who interact with each other, influencing each other, in the search for solutions to reach their goals. Motta (2001) states that change is fundamental and indispensable and inevitable for the survival of organizations in order to maintain their perpetuity.

According to the analysis of figure 3, a correlation analysis was performed on the articles researched based on the words “Culture and IT” and again NVIVO 11 brought a direct correlation between Organizational Culture and Information Technology, again the interdependence was detected Of the points researched so that there is a balance in the processes of the organization, so that there is success in the goals and objectives outlined. This analysis reinforces the rationale of this article, based on the interconnection of the nodes with the mentioned constructs in the theoretical reference of the research.

El-Mekawy, Rusu and Perjons (2014) support an alignment of IT and business areas presenting the impact on Organizational Culture, showing as a result of the research the existence of a clear interrelationship between IT and business, which impacts In Organizational Culture.

In Figure 4, the article found on the similarity of words found in the researched articles that Governance, IT and culture are interconnected and there is only one interconnection with the word stakeholders that directly relates to governance.

Justified by the fact that interconnection of governance make the organization's relationship with its more solid and transparent stakeholders.

The adequacy of good corporate governance practices suggested by the Brazilian Institute of Corporate Governance (IBGC) is a factor in generating value creation and corporate visibility.

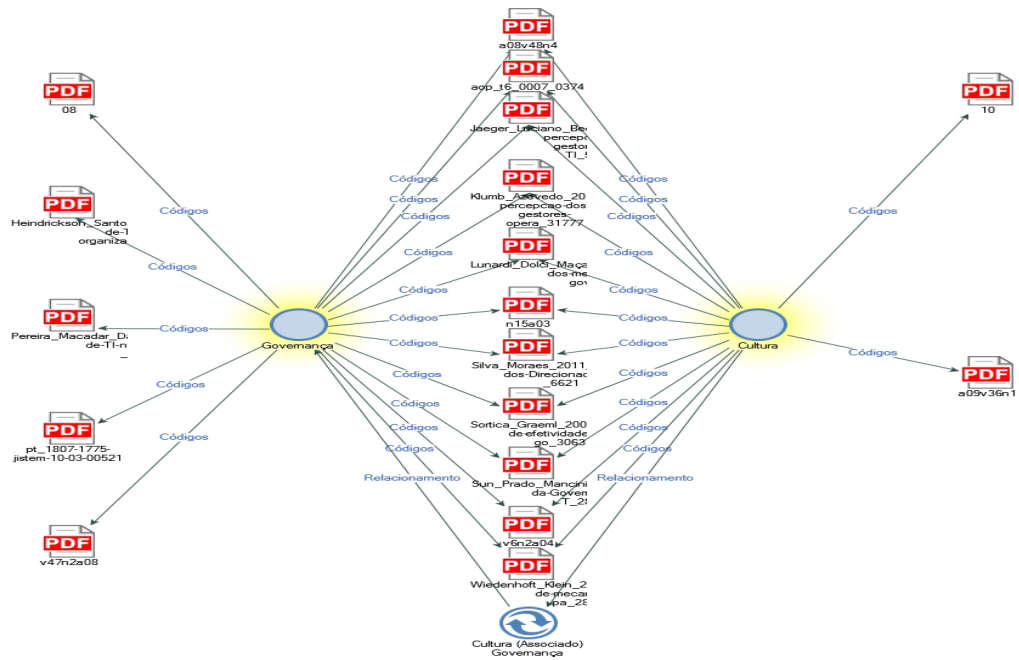


Figure 1 - Correlation analysis between Governance and Culture

Source - Of the research done

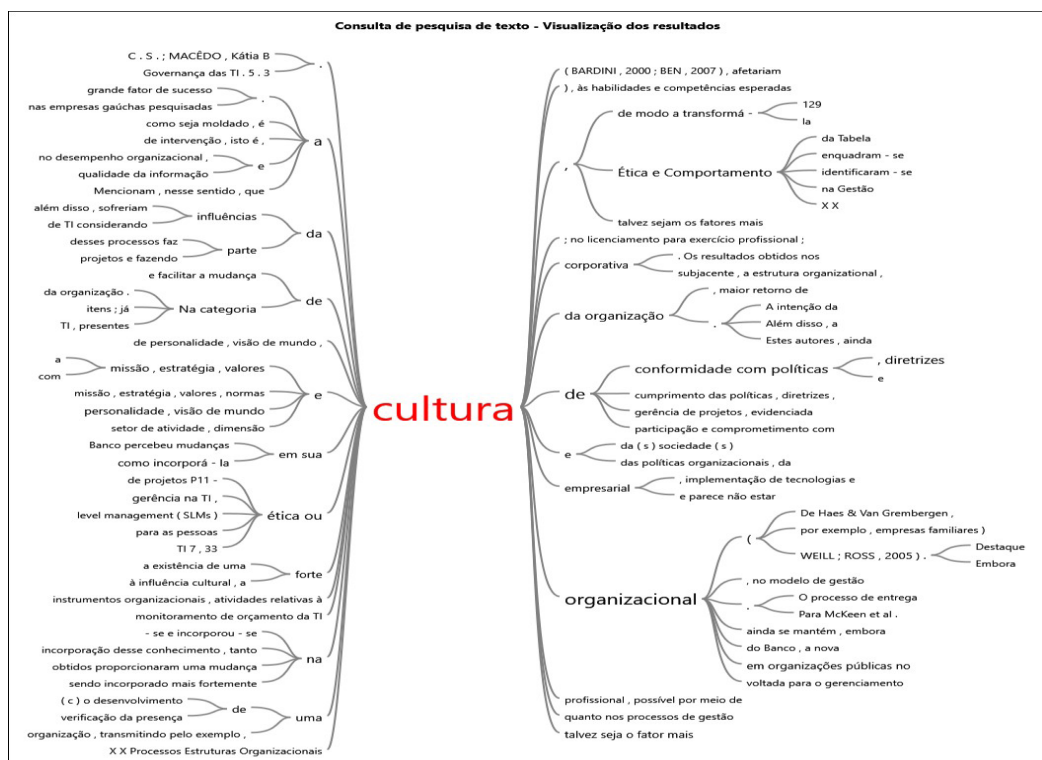


Figure 2 - Tree of Words Related to Culture

Source – NVIVO 11 – Authors



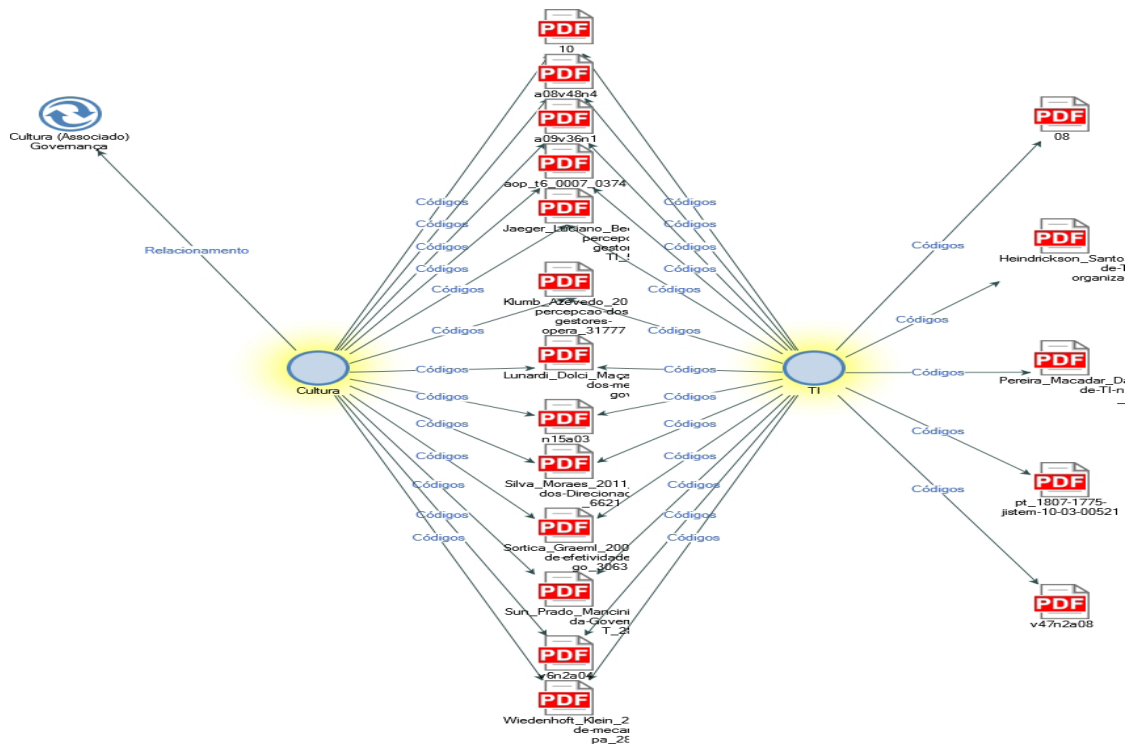


Figure 3 - Analysis of correlation between Culture and TI

Source - Of the research done

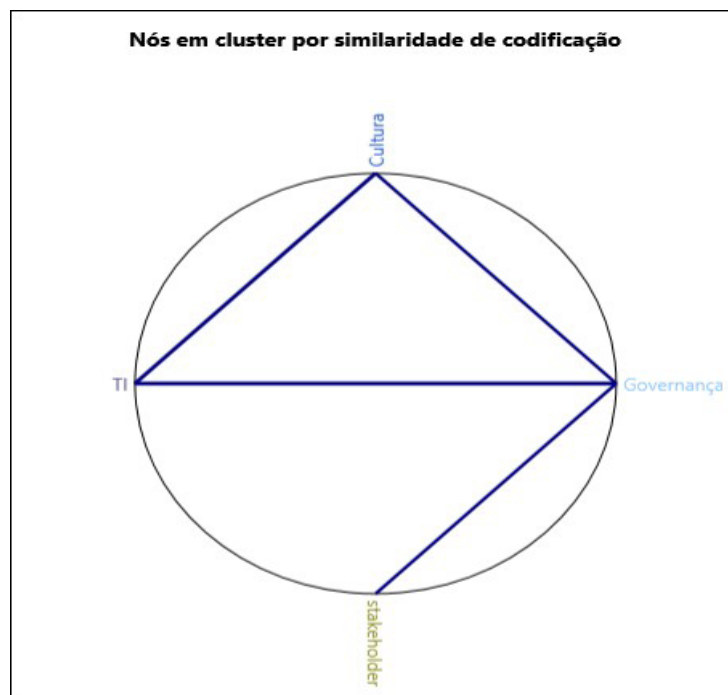


Figure 4 – Clusters similarity

Source - NVIVO 11 - Authors

Similarly happens with IT governance, creating a data network and information aligned to the interests of the company and its stakeholders. The technology is deployed in a way that directs transparent information and facilitates business fluency in a faster, more solid and cohesive way. In the complete analysis of the results, the article verified that the analyzes carried out in the NVIVO Software 11, coincide with the theoretical

basis of this work, aligning points that demonstrate that there is a direct relationship between Organizational culture and IT Governance, and strong evidence was found to exist. The need for alignment of such points so that there is a correct functioning of the system and for there to be greater transparency in the information and constant perpetuity of the business.

## 5 | CONCLUSION

Based on the objective of the research to identify the impact that the organizational culture has within the governance of it, measuring the growth of articles in the dissemination of information in the scientific journals in Scielo and SPELL databases, we verified that the number of articles on the subject in the two Electronic libraries are still small, since only 18 of them have the words “IT Governance” and “Culture” in their respective summaries and / or titles.

The NVIVO 11 software analyzes demonstrate that there is a direct relationship between Organizational Culture and IT Governance. There are strong indications that there is a need for alignment among the subjects studied.

Based on the data surveyed the article concludes that the Organizational Culture of companies directly influences the implementation of IT Governance, it is verified that companies have to consider at the moment of implementation the cultural aspects of the company, since without considering these aspects, the process of Implementation of IT Governance can generate noise within the company, causing employees not to adopt the practices endorsed by the area of technology. We can say that the inverse is also very impacting, that is, now of implementation of IT Governance, it has a direct impact on the Organizational Culture of companies.

The article concludes that Organizational Culture and IT Governance are directly linked and influence each other within companies.

As a proposal for future studies, we propose to study how the implementation of corporate governance can impact the organizational culture of companies. As the main limitation of the study is the number of electronic libraries surveyed, since we direct our efforts in the libraries Scielo and Spell.

## REFERENCES

Bio, Sérgio R. (1987) *Desenvolvimento de sistemas contábeis-gerenciais: um enfoque comportamental e de mudança organizacional*. São Paulo, Tese (Doutorado), Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo.

Boechmann, Clara Emilie & De Andrade, Newton Borba (2006) Mudanças organizacionais no processo de modernização da Secretaria da Fazenda do Estado de Pernambuco, *Revista do Serviço Público Brasília*, 57(2): 191-210 Abr/Jun.

Bowen, P., Chung, M; Rohde, F. (2007) Enhancing IT Governance Practices: A model and Case Study of an Organisation's Efforts. *International Journal of Accounting Information Systems*, 8: 191-221.

- Brown, C.; Magill, S. (1994) Alignment of the IS functions with the enterprise: toward a model of antecedents. *Management Information Systems Quarterly*, 18(4): 371-404.
- Brown, A., Grant, G. G. (2005) Framing the frameworks: a review of IT governance. *Research Communications of the Association for Information Systems*, 15: 696-712.
- Cadbury, Sir. A. (1992) Committee on the financial aspects of corporative governance. *Gee Publishing, Connion*.
- Chin, P.; Brown, G.; Hu, Q. (2004) The Impact of Merges & Acquisitions on IT Governance Structures: A Case Study. *Journal of Global Information*, 12(4): 50-74
- Dallas, S.; Bell, M. (2004) The Need for IT Governance: Now more than ever. *Gartner Inc*.
- El-Mekawy, M., Rusu, L., & Perjons, E. (2014). The impact of business-IT alignment on organizational culture. In *Pacific Asia Conference on Information Systems, Chengdu, June 24-28, 2014*.
- Fleury, M. T. L. (1987). Estórias, mitos, heróis: cultura organizacional e relações do trabalho. *Revista de administração de empresas*, 27(4), 7-18.
- \_\_\_\_\_. O desvendar a cultura de uma organização - uma discussão metodológica. In: FLEURY, M.T.L.; FISCHER, R.M. (coord.). *Cultura e poder nas organizações*. São Paulo: Atlas, 1996.
- Garcia, F. (2005) Governança Corporativa. Monografia, *UFRJ*.
- Geertz, Clifford (1989) *A interpretação das culturas*. Rio de Janeiro: LTC.
- Hamel, G., Prahalad, C. K. (1994) Competing for the future. *Harvard Business Review School Publishing*, Boston, MA.
- Hofstede, Geert (1984) Culture's consequences – International differences in work-related values. *Newbury Park: Sage*.
- IBGC. Instituto Brasileiro de Governança Corporativa. (2004). *Código das melhores práticas de governança corporativa*. 3. versão. Disponível em: <<http://www.ibgc.org.br>>. Acesso em: 20 fev. 2017.
- ISACA. Information Systems Audit and Control Association (2015) Control Objectives for Information and related Technology – CobIT, version 5, *ISACA*.
- Kuper, Adam (1978) *Antropologia e antropólogos*. Rio de Janeiro: *Francisco Alves*.
- Loh, L. (1993) The Economics and Organization of Information Technology Governance: Sourcing Strategies for Corporate Information Infrastructure. MIT, *Sloan School of Management*.
- Luciano, E.; Wiedenhöft, G.; Filandro, I.; Netto, Y.; Koppe, G. (2015) Indicadores para Mensurar a Efetividade da Governança de Tecnologia da Informação: um Estudo Qualitativo Multimétodo. *XVIII SEMEAD - Seminários em Administração*.
- Lunardi, G. L., Becker, J. L., Maçada, A. C. G. (2012) Um estudo empírico do impacto da governança de TI no desempenho organizacional, *Produção*, 22(3): 612-624, maio/ago.
- Lunardi, G.; Becker, J.; Maçada, C.; Dolci, P. (2014) The impact of adopting IT governance on financial performance: An empirical analysis among Brazilian firms. *International Journal of Accounting of Information Systems*. 15: 66-81.

- Marconi, Marina A., Presotto, Zelia M. N. (1989) *Antropologia - uma introdução*. 2. ed., São Paulo: Atlas.
- Motta, P. R. (2001). *Transformação organizacional: a teoria e prática de inovar*. 4. ed., Rio de Janeiro: Qualitymark.
- Neela, A.; Mahoney, J. (2003) *Work With, Not Against, Your Culture of Refine IT Governance*. Gartner Inc, Stanford.
- Peterson, R. (2004) Crafting Information Technology Governance. *EDPACS*, 32(6): 1-24.
- Prasad, A., Heales, J., Green, P. (2010) A capabilities-based approach to obtaining a deeper understanding of information technology governance effectiveness: evidence from IT steering committees. *International Journal of Accounting Information Systems*, 11: 214–232.
- Robinson, N. (2005) IT excellence starts with governance. *Journal of Investment Compliance*, 6(3): 45-49.
- Santos, Neusa M. B. F. (1992) *Impacto da cultura organizacional no desempenho das empresas, conforme mensurado por indicadores contábeis - um estudo interdisciplinar*. São Paulo. Tese (Doutorado), Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo.
- SCHEIN, Edgar H. (1986) *Organizational culture and leadership*. San Francisco: Jossey Bass.
- \_\_\_\_\_, Edgar H. (1992) *Organizational culture and leadership*. 2. ed. San Francisco: Jossey-Bass.
- Van Grembergen, W. (2004) *Strategies for information technology governance*, Hershey: Idea group publishing.
- Weill, P; Ross, J. (2004) *IT Governance – How Top Performers Manage IT Decision Rights for Superior Results*. Harvard Business School Publishing.
- Wu, S., Straub, D., Liang, T. (2015) How Information Technology Governance Mechanisms and Strategic Alignment Influence Organizational Performance: Insights from a matched survey of business and IT managers. *MIS Quarterly*, 39(2): 497-518.



## **SOBRE O ORGANIZADOR**

**Marcos William Kaspchak Machado** - Professor na Unopar de Ponta Grossa (Paraná). Graduado em Administração- Habilitação Comércio Exterior pela Universidade Estadual de Ponta Grossa. Especializado em Gestão industrial na linha de pesquisa em Produção e Manutenção. Doutorando e Mestre em Engenharia de Produção pela Universidade Tecnológica Federal do Paraná, com linha de pesquisa em Redes de Empresas e Engenharia Organizacional. Possui experiência na área de Administração de Projetos e análise de custos em empresas da região de Ponta Grossa (Paraná). Fundador e consultor da MWM Soluções 3D, especializado na elaboração de estudos de viabilidade de projetos e inovação.

Agência Brasileira do ISBN

ISBN 978-85-7247-202-9



9 788572 472029