

Knowledge Management Maturity In The Municipal Public Administration

Heriberto Alzerino Flores;Marina Souza Kracik;Gianne Souza Kracik;Christine

Benciveni Franzoni;Ana Maria Benciveni Franzoni

Abstract

Knowledge Management allows the public service, including municipalities, to promote innovation in the services provision for citizens. To do so, it is necessary to implement it according to the business strategy. Thus, this study aims to create a Business Case to support São José Municipality Administration Office to implement Knowledge Management. As for the methodology, it is an applied research, characterized as a case study, qualitative, bibliographical and descriptive. For data collection, it was applied the Instrument for Evaluation of Knowledge Management in the Brazilian Public Administration, designed by Helou (2015). As conclusion, the researched organization is in the second level of maturity in Knowledge Management, where there are presence of Knowledge Management actions, however these could be better performed. Understanding the organization maturity level, as well as the strengths and improvement opportunities, a Business Case was elaborated with the purpose of guiding and justifying the organization's actions importance for the Knowledge Management implementation in organizational environment.

Keyword: Key

Published Date: 7/31/2019

Page:445-464

Vol 7 No 7 2019

DOI: <https://doi.org/10.31686/ijier.Vol7.Iss7.1627>

Knowledge Management Maturity In The Municipal Public Administration

Heriberto Alzerino Flores, Marina Souza Kracik, Gianne Souza Kracik, Christine Benciveni Franzoni, Ana Maria Benciveni Franzoni
Universidade Federal de Santa Catarina (UFSC), Brazil

Abstract

Knowledge Management allows the public service, including municipalities, to promote innovation in the services provision for citizens. To do so, it is necessary to implement it according to the business strategy. Thus, this study aims to create a Business Case to support São José Municipality Administration Office to implement Knowledge Management. As for the methodology, it is an applied research, characterized as a case study, qualitative, bibliographical and descriptive. For data collection, it was applied the Instrument for Evaluation of Knowledge Management in the Brazilian Public Administration, designed by Helou (2015). As conclusion, the researched organization is in the second level of maturity in Knowledge Management, where there are presence of Knowledge Management actions, however these could be better performed. Understanding the organization maturity level, as well as the strengths and improvement opportunities, a Business Case was elaborated with the purpose of guiding and justifying the organization's actions importance for the Knowledge Management implementation in organizational environment.

Keywords: public administration; knowledge management; maturity in knowledge management.

1. Introduction

The Brazilian public management has been improving, in order to better meet the needs of citizens, aiming to promote quality of life through the public services provision with excellence and professionalism. The public service involves the provision of the activity inherent to the public goods, to specific users or to those that benefit the community (Pereira, 2011).

The public services provision, following the promulgation of the Federal Constitution of 1988, was conditioned to the principles of legality, impersonality, morality, publicity and has been included efficiency as one of these pillars through Constitutional Amendment nº 19/98 (Mello, 2006). It is necessary that the public service focus be on the results and the citizen be treated as user of the service provided, and thus, be guaranteed its legitimacy in the process of evaluating the service quality rendered (Brudeki, 2007).

The Brazilian public sector structure is composed of three levels: federal, state and municipal. Each of this government structure has political, administrative and financial autonomy (Bernardi, 2009). In this complex scenario and in a globalized environment, the public manager must adhere to management models that add value, generating responses for the population growing demands, designing egalitarian public policies, guaranteeing quality services and stimulating the public agent training (Nascimento, 2014).

It has been focused on Knowledge Management (KM) to improve public administration services and help achieve its goals. This kind of management operates in internal processes, increasing the capacity of public service to reflect on attendance for the citizen (Bezerra, Souza, & Cassundé, 2016). The ability to manage organizational knowledge is increasingly important in the current scenario, since knowledge creation and diffusion have become fundamental factors in the innovation process in public services provision. (Flores, 2018).

Knowledge Management is a process of creating, capturing and using knowledge to increase organizational performance (Bassi, 1999). Sun and Hao (2006) add other elements: storage, sharing and reuse of knowledge. Knowledge Management contributes to organizational processes efficiency, promoting sustainability and success in the activity area, as well as valuing knowledge assets (Teixeira Filho, 2000).

There are Knowledge Management maturity frameworks that measure the Knowledge Management level and direct organizations to reach the highest one. It is necessary to use an appropriate framework for the organizational context, since each organization has different areas and strategies of Knowledge Management (Dalkir, 2005). Cong and Pandya (2003) explain that there are large differences between public and private sectors, and these require specific Knowledge Management strategies for each sector.

From the existing frameworks, the Asian Productivity Organization (APO, 2009) model stands out, it was adapted by Batista (2012) and later by Helou (2015) to suit for public management. To implement Knowledge Management, according to APO (2009), it is necessary to go through four steps. The first is the “discovery”, when knowledge needs and gaps are identified. “Design” is the second step, at which time Knowledge Management projects are created. The third is “to develop”, at that stage projects are actually implemented and finally, the last step is called “to implement”, when Knowledge Management is carried throughout the organization.

In this context, this article will act in the first stage of Knowledge Management maturity, which seeks to conduct an organizational assessment, to identify the Knowledge Management maturity level and to create guidelines to achieve the highest one. In the discovery phase, it is identified whether the Knowledge Management is being practiced in the organization and these actions intensity, besides verifying if the organization has appropriate conditions to implement and sustain the Knowledge Management systematic processes (Batista, 2012; APO, 2009).

Thus, this article purpose is to create a Business Case to support São José Municipality Administration Office to implement the Knowledge Management based on its maturity level, improving internal processes and providing a higher quality service for citizens.

2. Theoretical Reference

2.1 Knowledge Management Maturity

Knowledge Management implementation initiatives models in organizations, whether public or private, have required an elaboration of tools capable of diagnosing what stage the organization finds itself to incorporate these practices.

Inside the organization, the Knowledge Management implementation process requires that be

identified in what way the activities related to Knowledge Management are practiced and in what organizational conditions they are conducted, say Ehms and Lagen (2002). Many organizations begin this process in their organizational environment in a non-systematic way, which increases the chances of the project not achieving the expected success.

Maturity models in knowledge management can contribute to identify the extent knowledge management is being used in the organization. There are few models that actually seek to identify the use of knowledge management level within organizations, since it is an intangible asset, thus hard to measure. Knowledge Management maturity models have the purpose of structuring knowledge areas according to maturity application levels and as higher the maturity level is higher is the strategic orientation, more advanced are processes and better are the results (Gonçalo, Junges & Borges, 2010).

Many organizations practice knowledge management in their corporate environment unconsciously, while others claim effective knowledge management in their environment and sometimes actions are far from any knowledge management model. According to Helou, Abreu and Lenzi (2015) one of the first actions to implement an effective knowledge management program is to assess with maturity level the organization is, and a way to do it is through knowledge management maturity models.

According to Ehms and Lagen (2002), a knowledge management maturity model allows to acquire information about the organization considering participants different points of view about the process. According to Kraemer et al. (2016), most of knowledge management maturity models were developed in the academic environment or by consultants, and are based on the Capability Maturity Model (CMM), an instrument designed to measure the processes maturity in software engineering organizations.

From CMM, other models have been designed aiming to be used in different kinds of organizations and with different focuses, such as Knowledge Management Maturity Model (KMMM), which uses same dimensions defined by CMM and positions organization in five predetermined levels: initial, repetitive, defined, managed, and optimized.

A specific methodology was developed for the World Bank Institute, the Organizational Knowledge Assessment (OKA), to foster knowledge development in organizations, promoting education initiatives, information technology infrastructure and innovation systems. Thus, it is possible to measure maturity in public and private organizations knowledge management.

Kruger and Snyman (2007) considered that the vast majority of instruments available in the literature are technology-focused, leaving a gap in the strategic sectors of organizations, so they developed the Strategic Knowledge Management Maturity (SKMMM). However, Kruger and Jhonson (2009) have improved SKMMM, making possible to apply for organizations in both public and private contexts.

However, none of the mentioned models had was directed to exclusive application in organizations of public sector, nor to Brazilian public organizations. Thus, Batista (2012) elaborated the Knowledge Management Maturity Model for Public Administration, which aimed to identify the maturity level in knowledge management Brazilian public sector organizations, considering their specificities. Three years later the instrument was updated by Helou (2015) who presented a new viewpoint and new contributions.

2.2 Knowledge Management Maturity for Brazilian Public Administration

A hybrid model based on the knowledge management methodology of the Asian Productivity Organization (APO, 2009) was developed by Batista (2012), using as basis a systematic literature review on the various knowledge management models that could be applied in Brazilian public administration.

The Knowledge Management Model for Public Administration conceived by Batista (2012) was structured in two parts, the descriptive one where the Knowledge Management essential elements are presented, and the prescriptive one where the Knowledge Management implementing steps in organizations are listed. Batista (2012) outlines four steps for implementing a Knowledge Management Plan, namely, "Diagnose," "Plan," "Develop," and "Implement," this research will deepen in step 1.

In the first stage, "Diagnostic", the public organization perform a brief self-assessment of Knowledge Management maturity level using a specific instrument, and based on this evaluation, elaborates the Business Case justifying the Knowledge Management importance for the organization. For the self-assessment, Batista (2012) designed a specific instrument that aims to measure the knowledge management maturity in public sector organizations in Brazil, which he called as a Knowledge Management Evaluation Instrument of Public Administration.

About the Business Case, it is a document that contains operational reasons or needs and how they relate to strategic objectives, expected results, range and scope, implementation form, effective contributions of Knowledge Management and how it will contribute to the project success (Batista, 2012, p.96).

Helou (2015), based on the Instrument for Evaluation of Public Administration application, and after surveying critical success factors, realized the need to incorporate two new dimensions into the tool, which he called Legal Framework and Organizational Culture. According to Helou (2015), the incorporated dimensions obey the criteria established in the APO model (2009), but their questionings were elaborated considering the Brazilian public administration context.

The Organizational Culture dimension is added considering the public organizations features regarding processes, people and legality. The Legal Framework dimension becomes essential, because to an action happen in the Public Administration, it must be in accordance with the legality conditions. Thus, this dimension supports the criteria - legality, impersonality, morality, publicity and efficiency - that govern public administration (Helou, 2015).

In Figure 1 it is observed that Helou (2015) grouped the 9 (nine) dimensions of the instrument into three distinct groups: viabilizers, guiders and resultants. The guiders were the dimensions incorporated by the author from her study.

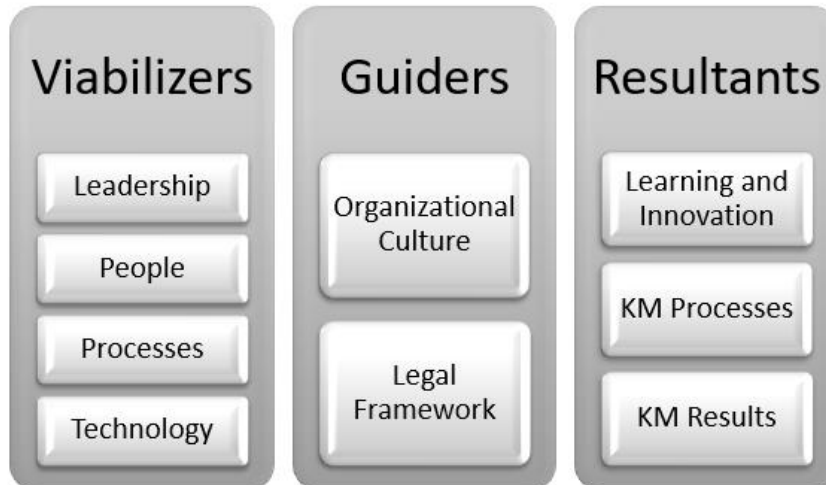


Figure 1. Structure of the analysis dimensions
 Source: Adapted from Helou (2015, p.235, our translation).

Therefore, with the changes proposed and aiming to make the new instrument feasible, Helou (2015) added and organized the questionings between the dimensions, so that each dimension has five questionings and in each dimension it reach up 25 points in the total. Considering that there are nine dimensions, the maximum score to be reached by the organization is 225 total points (dimension maximum value x dimensions quantity). So, when compiling the organization's score, according to the sum obtained in the dimensions will be possible to identify in which maturity level the organization is at the moment.

From its study, Helou (2015) renamed the levels to meet the proposed new dimensions. Thus, after analyzing the data according to the score obtained, the studied organization will be framed in 5 (five) levels, as shown in Figure 2.

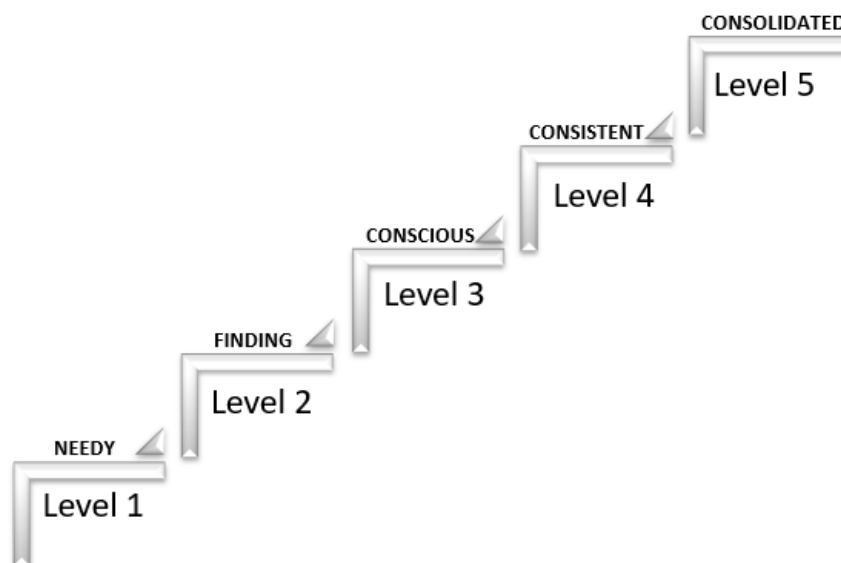


Figure 2. 5C's maturity scale
 Source: Helou (2015, p.235, our translation).

Thus, according to Helou (2015), from the obtained data analysis, the organization will be framed at one of the levels mentioned in Figure 2, which are defined as follows:

Level 1: There are no knowledge management processes in the organization. The Knowledge Management and its importance to the organization are ignored;

Level 2: The beginning of understanding the Knowledge Management process and initiatives;

Level 3: Knowledge Management initiatives exist in the organization in isolation;

Level 4: The starting Knowledge Management process is verified in an integrated way;

Level 5: The process of Knowledge Management is institutionalized throughout the organization with the awareness of the need for permanent evaluation.

It should be noted that in relation to the diagnostic steps proposed by Batista (2012), they were not altered by Helou (2015). That is, the diagnostic stage continues to understand the realization of the self-assessment, as well as the business case elaboration to justify the Knowledge Management importance for the organization.

3. Methodological Procedures

The current Science is the result of an evolution process occurred through a set of techniques, its empirical facts and laws, guided by the need for continuity, which has been perfected and expanded throughout the human history (Creswell, 2010). The study is characterized as a scientific research that is “performed from the use of a method composed by a systematic and rational activities set that, with a greater security and economy, allows to achieve the goal [...] tracing the way to be followed” (Marconi & Lakatos, 2010, p. 62).

As regards its objectives, it is a descriptive study considering its need of observing, record, analyse and relate facts and variables as accurately as possible and without being manipulation in carrying out these activities (Cervo, Bervian & da Silva, 2010). Concerning the problem approach, its a qualitative study that seeks to extract sense from text and image data, that is, [...] a permanent process involving continuous reflection of the data, formulating analytical questions (Creswell, 2010).

About the study elaboration procedures, it is a bibliographical and documental research. A bibliographical research seeks to answer a problem based on theoretical references published in articles, books, dissertations and theses, it can be performed independently or together with descriptive or experimental research (Cervo, Bervian & da Silva, 2010).

Still regarding the technical procedures, this research is classified as a case study that aims to study in depth one aspect of a problem within a limited time period. The case study does not have a hard script, but it is possible to follow four basic steps to execute it: the unit-case delimitation; data collect; data selection, analysis and interpretation; and, report elaboration (Gil, 2010).

The organization studied is the São José’s City Hall in the state of Santa Catarina – Brazil, which has approximately 4,600 servants on its staff, occupiers of public positions of effective provision, commissioned and those admitted temporarily, which are distributed among the agencies that composed the direct and indirect municipal administration. Its structure is composed of 14 secretaries, a municipal procurator’s office, 1 autarchy and 4 foundations.

Were selected the servants located in the Administration Secretary, whose mission is the basic guidelines elaboration for the policies of organization, administrative modernization and human Resources development, as well as exercise other activities inherent to the municipal public administration. It was used as criterion the level of education required for the position admission, that is, the minimum level of education for the position admission was equal or greater than higher education (college), due to the sectors activities nature: administrative, technical and strategic activities.

Thus, of the 79 servants of the Administration Secretary, 24 did not meet the minimum requirement and, therefore, 55 servants participated in the survey, these are occupants of various positions and works at the Secretary's office and in four different directories. Of the total number of participating servants, 02 perform their activities in the Secretary's office, 14 in the Purchasing Department, 17 in the Human Resources Department, 04 in the Information Technology Department and 18 in the Operational Department.

The instrument used for data collection was the Knowledge Management maturity evaluation questionnaire in the Brazilian Public Administration, conceived by Helou (2015). It is a tool exclusively designed to be used in the Brazilian public context and was adapted from Batista (2012) that is based at Asian Productivity Organization (APO, 2009) instrument.

The instrument contains nine dimensions of analysis with forty-five statements equally distributed among these dimensions. Its used the Likert scale to fill the questionnaire, where the respondent indicate a score that goes from 1 to 5, which the 1 for the actions described as very poorly performed or not yet performed, 2 for the actions described as poorly performed, 3 for the actions described as adequately performed, 4 for the actions described as well performed and 5 for the actions described as very well performed.

At the end, it obtained the average scoring for each statement and then the average score for each dimension, obtained by the statements average sum divided by the affirmations number in each dimension. Thus, it is determined the maturity's level and becomes possible to generate a Knowledge Management implementation and improvement Business Case.

4. Results and Analysis

The data tabulation was realized using an electronic spreadsheet. From the questionnaires answered grouping, it was possible to reach an average score for each assertion and, later, the total score for each dimension. The Table 1 presents achieved and maximum score for each assertion, as well as the sum of these values that refers the score for the analysed dimension.

The analysis and data interpretation consists of verifying the final value obtained by the organization, which was the result from the sum values of each nine dimensions analysed, being possible to find out the maturity level the institution is in, according the references values defined by Helou (2015), to know:

- a) 1 to 45 points: level 1 (needy);
- b) 46 to 90 points: level 2 (finding);
- c) 91 to 135 points: level 3 (conscious);
- d) 136 to 180 points: level 4 (consistent);

e) 181 to 225 points: level 5 (consolidated).

Thus, an isolated and joint analysis of the dimensions was realized, identifying the maturity level that organization, raising the knowledge management success critical factors, verifying the strengths and improvement points for each dimension studied and, finally, the Business Case was elaborated.

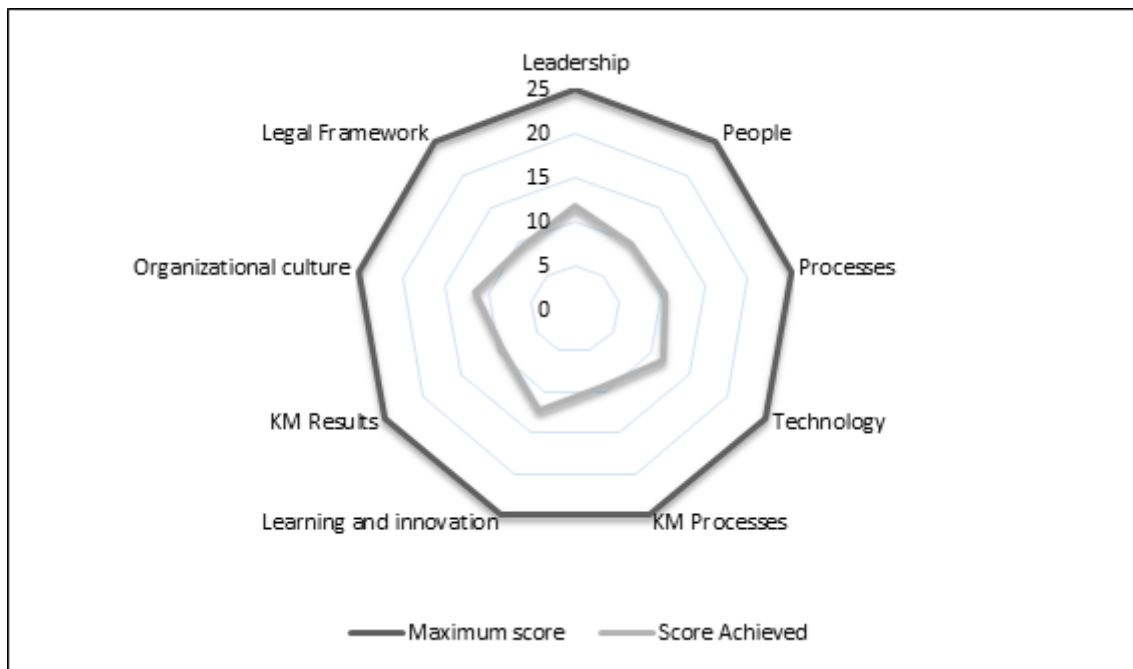
In the isolated analysis it was observed that of the 25 possible points for each dimension, the learning dimension has the higher score, that is 12,21 points, and the lowest one was from the Legal Framework dimension that added 9,41 points. The dimensions scores can be seen in Table 1.

Table 1. Ranking and score by dimension

Dimension	Score Achieved	Maximum score	Ranking
Leadership	11,85	25	2°
People	9,85	25	6°
Processes	10,50	25	5°
Technology	11,53	25	3°
KM Processes	9,44	25	7°
Learning and Innovation	12,21	25	1°
KM Results	9,44	25	7°
Organizational Culture	11,52	25	4°
Legal Framework	9,41	25	9°
TOTAL	95,75	225	--

It should be emphasized that of the nine dimensions proposed in the analysis instrument, four of them (people, knowledge management processes, knowledge management results and legal framework) received scores lower than 10 points and the other five (leadership, processes, technology, learning and innovation and organizational culture) received scores above 10 and lower than 15. This means that the first ones are situated where the foreseen actions in the corresponding categories are not present in the organization daily life, or are very poorly performed and deserve more assertive action in these areas. In other dimensions, the actions are present and are part of the organization and the employees daily life, but still demand attention in order to take advantage of existing strengths and opportunities for improvement.

According to what is shown in Table 1, it is verified that the score obtained in each dimension is close, having a 2.8 points variation in the relation between the lowest and highest scores and, therefore, as shown in Graphic 1, all dimensions need to be developed and refined.



Graphic 1 - Dimension score

The scores results obtained by the organization show us a long way to be followed regarding the knowledge management integration, since in none of the analysed dimensions by the instrument the organization had a score referring to the third maturity level, which refers to when actions are realized in an appropriate way.

From the analysed dimensions score sum (Table 1), the organization obtained in total 95,75 points, reaching the level of “Stating” (second level) in the knowledge management maturity scale from the five possible, as proposed in the Helou’s instrument (2015), that is, there is in the organization a beginning of the knowledge management process understanding and also knowledge management initiatives.

According to Helou (2015), after knowing the knowledge management maturity level, the next step is to elaborate a Business Case aiming to justify the knowledge management implantation in the organization. The Business Case brings not only the justification, but what are the objectives proposed, the process or project description, the possible knowledge management contributions, the critical success factors and the cost benefit ratio.

4.1 Business Case

The Business Case is a document that aims to systematize the necessary actions for knowledge management implementation in the organization. However, this document elaboration only happens after those responsible are aware of the knowledge management maturity level and the improvement strengths and opportunities.

Thus, after verifying that the São José Municipality Administration Office is at level 2 of maturity, according to the methodology presented, the Business Case was elaborated (Table 1). It was organized following this structure: title, justification, objectives, process and project description, Knowledge Management intervention, critical success factors and cost-benefit analysis.

Frame 1 - Business Case of São José Municipality Administration Office

<p>Document Title: <i>Business Case of São José Municipality Administration Office</i></p>
<p>Justification</p> <p>There is a need to:</p> <ol style="list-style-type: none">1. Identify, create, store, share and apply organizational knowledge in all Administration Office sectors.2. People appreciation and adequate allocation of resources, as well as the need to train the employees to improve their activities performance.3. Definition of organizational performance indicators, based on efficiency, effectiveness and effectiveness.4. Mapping existing technologies that can be used in the knowledge management project implementation.5. Mapping the knowledge management practices existing in the organization and that can be disseminated during the chosen knowledge management model implementation.6. Establishment of actions that promote an organizational culture change, especially those that promote the knowledge sharing culture and stimulates collaborative work between teams and sectors of the organization.7. Institutionalization of a knowledge management sector or area in the Administration Office by municipal decree, establishing attributions and promoting the validity of the acts involved.
<p>Objectives</p> <ol style="list-style-type: none">1. To promote actions to identify, create, store, share and apply organizational knowledge in an institutionalized way in all Administration Office sectors.2. To stimulate the people appreciation and adequate allocation of resources, as well as to establish training programs for employees.3. To define organizational performance indicators.4. To identify existing technologies that can be used in the knowledge management project implementation.5. To map the existing knowledge management practices in the organization.6. To establish actions that promote an organizational culture change in favor of knowledge sharing, collaborative work between teams and sectors.7. To institutionalize sector or area of knowledge management in the Administration Office by municipal decree.
<p>Project or process description</p> <p>The project will have the following steps:</p> <ol style="list-style-type: none">1. Establish the knowledge management process in the Administration Office sectors to enable employees to start the organizational knowledge process apply, in a systematic way, obeying pre-established standards.2. Develop an appreciation program based on a survey conducted with the employees and map the need for training based on the annual performance evaluation results.3. Define the organizational performance indicators, considering the administration principles (legality,

impersonality, morality, publicity and efficiency), with emphasis on the last two.

4. Establish which technologies exist and can be used in the knowledge management project implementation.
5. Create work groups to map the existing knowledge management practices in the organization.
6. Elaborate a knowledge socialization activities schedule among the team members to allow to disseminate a knowledge sharing organizational culture and a collaborative work between teams and Administration Office sectors.
7. To stimulate the public administration (Civil House Office) to create a sector or area of knowledge management in the Administration Office by municipal decree.

Knowledge Management Intervention

The project will make the following contributions:

1. Institution of procedures to identify, create, store, share and apply organizational knowledge.
2. Creation of employees upgrading and training programs to improve the organization's overall performance.
3. Knowledge of the organizational performance indicators and these indicators be known by all those involved in the Administration Office processes.
4. Identification of the main technologies existing in the structure of T.I. and that can be used by the employees in an appropriate way in knowledge management actions.
5. Mapping knowledge and knowledge management practices in sectors that make up the Administration Office.
6. Promote organizational culture change to promote a more effective knowledge management.

Critical success factors

1. Leadership recognizes the importance of knowledge as a strategic element for its activities.
2. Organization members recognize that knowledge is an important factor in the decision-making process.
3. Organizational climate is favorable to focused on knowledge management actions implementation.
4. Leadership is willing to use new tools and methods and encourage group work to share knowledge.

Cost-benefit analysis

In financial values terms, the project requires a more detailed study for each action. However, you can list some benefits:

1. Establishment of knowledge management procedures.
2. Encourage employees valorization and qualification to a possible improvement in the organization performance.
3. Adequate and optimized use of technologies available in the organization.
4. Knowledge of knowledge and knowledge management practices in the sectors.
6. Organizational culture change in favor of more effective knowledge management.

As can be seen in Frame 1, the document elaboration considered important points raised in during the maturity level analysis.

From the document preparation, it is systematized the justifications of knowledge management implementation, the proposed objectives, the steps that will be followed, the possible contributions that the knowledge management can offer the organization, the critical success factors found and cost-effectiveness for the program implementation. In the Business Case it is possible to perceive the gains in work relationships and in the organizational environment.

5. Conclusion

This study aimed to create a Business Case to support São José Municipality Administration Office to implement the Knowledge Management based on its maturity level considering the inserted context, which is a public organization whose activities are performed at the municipal scope. Thus, the Instrument for Evaluation of Knowledge Management in the Brazilian Public Administration, conceived by Helou (2015), was used. The instrument is composed of ten analysis dimensions and has 45 categories distributed among them.

As a result, it was found that the organization is in grade 2 at the maturity level, which is defined by Helou (2015) as "Checking" stage, which means that the organization is at the beginning of process understanding and Knowledge Management initiatives.

It was verified that among the analysis dimensions, the organization obtained an average score above two points in at least five of these dimensions (leadership, processes, technology, learning and innovation and organizational culture). Each of these dimensions brings elements that indicate the organization appropriate conditions to systematically implement and maintain the Knowledge Management processes, which is also part of the proposed specific objectives.

From the elaboration of a Business Case, it was tried to justify the importance of the implementation of Knowledge Management in the organization studied. As one of the justifications, the need to identify, create, store, and apply organizational knowledge in an institutionalized way in all sectors of the Administration Office of São José City.

In addition, the document defined objectives based on the institutionalization of the Knowledge Management process in all sectors of the Administration Office, as well as, described the Knowledge Management project process, defining its steps for accomplishment of the activities. It also presented the possible interventions promoted by the project, such as the knowledge mapping and Knowledge Management practices in the sectors, highlighting the critical success factors, especially those related to leadership. Finally, the cost-benefit that the program can bring the organization, highlighting the changes in the organizational culture to favor a more effective Knowledge Management, brought about by the project realization.

Finally, it is concluded that the study presents as contribution the possibility of management tools application in the municipal public administration, and has brought, mainly, the reflection of the need of these public organizations to adopt the Knowledge Management as an important element for the public manager decision-making process, guiding it in the promotion of efficient and innovative public services and that effectively meet the needs of citizens and users at the local scope.

6. References

- APO - Asian Productivity Organization. *Knowledge management: facilitator's guide*. 2009. Disponível em: <http://www.apo-tokyo.org/00e-books/IS-39_APO-KM-FG/IS-39_APO-KM-FG.pdf> Acesso em: 25 jun. 2018.
- Bassi, L. Harnessing the power of intellectual capital. In J. Cortada and J. Woods. *The Knowledge Management Yearbook 1999-2000*, Boston: Butterworth Heinemann: 422-431., 1999.
- Batista, F. F. (2012). *Modelo de gestão do conhecimento para a Administração Pública brasileira: como implementar a gestão do conhecimento para produzir resultados em benefício do cidadão*. Brasília: IPEA.
- Bernardi, J. L. (2009). *A organização municipal e a política urbana*. 2. ed. Curitiba: Ibepex.
- Bezerra, F. S., Souza, R. dos S., Cassundé, F. R. de S. A. (2016). Uma Discussão Teórica sobre a Importância da Gestão do Conhecimento na Administração Pública. *Id on Line Revista de Psicologia*, vol.10, n.29, p. 129-143. ISSN 1981-1179.
- Brudeki, N. M. (2007). *Gestão de serviços públicos municipais*. São Paulo: Ibepex.
- Cervo, A. L.; Bervian, P. A.; da Silva, R. (2007). *Metodologia científica*. 6 ed. São Paulo: Pearson Prentice Hall.
- Cong, X.; Pandya, K. V. (2003). Issues of knowledge management in the public sector. *Electronic Journal of Knowledge Management*, v. 1, n. 2, p. 25-33.
- Creswell, J. W. (2010). *Projeto de pesquisa: métodos qualitativo, quantitativo e misto*. 3. ed. Porto Alegre: Artmed.
- Dalkir, K. (2005). *Knowledge management in theory and practice*. Burlington: Elsevier Butterworth-Heinemann.
- Ehms, K.; Langen, M. (2002). *Holistic Development of Knowledge Management with KMMM*, Siemens AG, Disponível em: http://www.kmmm.org/objects/kmmm_article_siemens_2002.pdf. Acesso em: 03 set 2018.
- Gil, A. C. (2010). *Como elaborar projetos de pesquisa*. 5. ed. São Paulo: Atlas.
- Gonçalo, C. R., Junges, F. M., Borges, M. de L. (2010). Avaliação da gestão do conhecimento: modelos de mensuração. XXX Encontro Nacional de Engenharia de Produção. *ENEGEP*. Disponível em http://www.abepro.org.br/biblioteca/enegep2010_TN_STO_120_784_17312.pdf Acesso em: 10 set 2018.
- Helou, A. R. R. A. (2015). *Avaliação da maturidade da gestão do Conhecimento na administração pública*. 2015. 391 p. Tese (Doutorado) - Curso de Engenharia e Gestão do Conhecimento, Programa de Pós-Graduação em Engenharia e Gestão do Conhecimento do Centro Tecnológico, Universidade Federal de Santa Catarina, Florianópolis.
- Helou, A. R. R. A., Abreu, A. C. D. A., Lenzi, G. K. S. (2015). *Maturidade da gestão do conhecimento para a administração pública*. CONVIBRA. Disponível em: http://www.convibra.org/upload/paper/2015/38/2015_38_11748.pdf. Acesso em: 13 set 2018.
- Kraemer, R., Freire, P. de S., Souza, J. A., Dandolini, G. A. (2017). *Maturidade de gestão do conhecimento: uma revisão sistemática da literatura para apoiar o desenvolvimento de novos modelos de*

avaliação. *Perspectivas em Gestão & Conhecimento*, João Pessoa, v. 7, Número Especial, p. 66-79, mar.

- Kruger, C. J.; Johnson, R. D. (2010). *Knowledge Management Maturity according to Organizational Size: A South African Perspective. 18th European Conference on Information Systems*. Anais. Pretoria. Disponível em: <http://is2.lse.ac.uk/asp/aspecis/20100014.pdf> . Acesso em: 18 set. 2018.
- Kruger, C. J.; Snyman, M. M. M. (2007). *Guidelines for assessing the knowledge management maturity of organizations. South African Journal of Information Management*, v. 9, n. 3, p. 1-11.
- Marconi, M. de A.; Lakatos, E. M. (2010). *Fundamentos de metodologia científica*. 7. ed. São Paulo: Atlas.
- Mello, Celso Antônio Bandeira de. *Curso de direito administrativo*. 21. ed. São Paulo: Malheiros.
- Nascimento, E. R. (2014). *Gestão pública*. 3 ed. São Paulo: Saraiva.
- Pereira, J. M. (2011). *Administração Estratégica: foco no planejamento Estratégico*. São Paulo: Atlas.
- Sun, Z.; Hao, G. (2006). HSM: a hierarchical spiral model for knowledge management. *Proceedings of the 2nd International Conference on Information Management and Business (IMB2006)*, Sydney, Australia 13-16. February, 542-551.
- Teixeira Filho, J. (2000) *Gerenciando conhecimento: como a empresa pode usar a memória organizacional e a inteligência competitiva no desenvolvimento de negócios*. Rio de Janeiro: Senac.

Copyright Disclaimer

Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>).

INSTRUMENT FOR EVALUATING MATURITY IN KNOWLEDGE MANAGEMENT (HELOU, 2015)

SCALE

- 1 = The actions described are very poorly performed, or are not yet performed.
- 2 = The actions described are poorly performed.
- 3 = The actions described are performed in an appropriate manner.
- 4 = The actions described are well done.
- 5 = The actions described are very well done.

LEADERSHIP DIMENSION		VALUE				
Category	Question	1	2	3	4	5
Knowledge as a strategic resource	Leadership recognizes the importance of knowledge creation and sharing as a strategic resource within the organization.	1	2	3	4	5
Responsibility and collaborative work	The leadership uses the empowerment to the intermediary heads for the accomplishment of collaborative works and in team.	1	2	3	4	5
Valorization of people and allocation of resources	Leadership recognizes, promotes performance improvement, individual learning and knowledge sharing by ensuring the allocation of financial resources in KM projects.	1	2	3	4	5
Mission, Vision and Organizational Values	Leadership recognizes the importance of aligning KM with the organization's strategic objectives.	1	2	3	4	5
KM maturity	Leadership realizes the need to assess KM maturity in the steps of implementing the KM process.	1	2	3	4	5

PEOPLE DIMENSION		VALUE				
Category	Question	1	2	3	4	5
Audit and skills	The organization relies on an audit of knowledge to permanently feed the bank the skills of its servers.	1	2	3	4	5
Training	There is a employees training program to recognize knowledge as an organizational resource in order to contribute to the KM	1	2	3	4	5

	project.					
Shared and collaborative work	The organization of the work contemplates the formation of teams that support the shared and collaborative work.	1	2	3	4	5
Knowledge for decision making	The employees recognize the importance of the resource knowledge as an element of decision making.	1	2	3	4	5
Incentive for participation and sharing	There is some incentive system to encourage employee participation in the KM project.	1	2	3	4	5

PROCESSES DIMENSION		VALUE				
Category	Question	1	2	3	4	5
Essential knowledge	The essential knowledge required in the execution of organizational processes is already known to the organization.	1	2	3	4	5
KM Alignment to Strategic Planning	The organization defines its core knowledge and aligns it with its mission and organizational objectives.	1	2	3	4	5
Collection and knowledge sharing	The process of collecting and sharing knowledge is systematized within the organization.	1	2	3	4	5
Assessment by indicators	Organizational processes are mapped and managed from performance indicators.	1	2	3	4	5
Focus on results	The organization continually evaluates and improves its processes to achieve better performance, efficiency, effectiveness and effectiveness.	1	2	3	4	5

TECHNOLOGY DIMENSION		VALUE				
Category	Question	1	2	3	4	5
Technology in process modeling	The organization models its work systems including new technologies and the sharing of knowledge.	1	2	3	4	5
Technological effectiveness	The IT infrastructure available is sufficient to support the organization's					

	strategies and the needs of the users.	1	2	3	4	5
Technology as a means of sharing	Technology is used as a source of communication and as support for knowledge transfer and sharing.	1	2	3	4	5
Technology as a means of knowledge	The data, information and knowledge available in the organization are regularly updated.	1	2	3	4	5
Technology as a means of recovering knowledge	The available technology already allows to arrange, make accessible, protect, store, retrieve, analyze, filter, evaluate and dispose of the data, information and knowledge relevant to the organization.	1	2	3	4	5

KM PROCESSES DIMENSION		VALUE				
Category	Question	1	2	3	4	5
KM processes	The organization has systematic processes of identification, creation, storage, sharing and use of knowledge.	1	2	3	4	5
Knowledge Map	The organization relies on a knowledge map and distributes knowledge assets or resources throughout the organization.	1	2	3	4	5
Process of acquisition and storage of knowledge	The knowledge gained after completing tasks and completing projects is recorded and shared.	1	2	3	4	5
Retention of knowledge in the organization	The essential knowledge of public servants leaving the organization is retained.	1	2	3	4	5
Learning practices	Benchmarking activities are carried out inside and outside the organization, the results are used to improve organizational performance and create new knowledge	1	2	3	4	5

LEARNING AND INNOVATION DIMENSION		VALUE				
Category	Question	1	2	3	4	5
Continuous learning	The organization continuously articulates and reinforces values such as learning and innovation.	1	2	3	4	5

Learning from mistakes.	The organization considers the attitude of taking risks or making mistakes as learning opportunities, as long as this does not happen repeatedly.	1	2	3	4	5
Interfunctional work.	Interfunctional teams are formed to solve problems or deal with troubling situations that occur in different management units of the organization.	1	2	3	4	5
Functional autonomy	People feel that they are given autonomy from their superiors and that their ideas and contributions are generally valued by the organization.	1	2	3	4	5
Innovation in people management	Intermediate leaders are willing to use new tools and methods and stimulate group work to share knowledge..	1	2	3	4	5

KM RESULTS DIMENSION		VALUE				
Category	Question	1	2	3	4	5
KM history in the organization	The organization has a track record of success in implementing KM and other change initiatives that can be proven with results of performance indicators.	1	2	3	4	5
Use of indicators to evaluate results.	Indicators are used to assess the impact of KM contributions and initiatives on the organization's results.	1	2	3	4	5
Improvement of indicators	The organization has improved - by the contributions and initiatives of the KM - the results related to indicators of quality of products and services and efficiency.	1	2	3	4	5
Social effectiveness indicators	The organization improved - through KM contributions and initiatives - the results on indicators of social effectiveness.	1	2	3	4	5
General criteria of the Brazilian Public Administration Indicators	The organization improved - through KM contributions and initiatives - the results of indicators of legality, impersonality, publicity, morality and development.	1	2	3	4	5

ORGANIZATIONAL CULTURE DIMENSION		VALUE				
Category	Question	1	2	3	4	5

Need to adopt KM	Leadership identifies the issues, factors and elements of success that lead the organization to the establishment of a KM culture and KM architecture.	1	2	3	4	5
Collaborative work and interdisciplinary teams	There is a work culture that stimulates collaborative work and in interdisciplinary teams.	1	2	3	4	5
Climate	The organization has an organizational climate conducive to participation and sharing of knowledge.	1	2	3	4	5
Sharing culture	The organization shares the best practices and lessons learned across the organization so there is not a constant "reinvent of the wheel" and rework.	1	2	3	4	5
Decision-making process	There is a culture of participation in the decision-making process.	1	2	3	4	5

LEGAL FRAMEWORK DIMENSION		VALUE				
Category	Question	1	2	3	4	5
Budget	There is a budget item to ensure the implementation of KM initiatives.	1	2	3	4	5
Legality	There is a link between the institutional bodies of the constituent powers of the Public Administration (governance structure) to guarantee the legality of KM actions.	1	2	3	4	5
Institutionality of the KM area	There is some systematized and institutionalized mechanism for the coordination and management of the KM process.	1	2	3	4	5
Evaluation of legal procedures	There are permanent mechanisms for assessing the need for change in the legal procedures of the organization.	1	2	3	4	5
People	There is some incentive mechanism that in a legal and legal way allows the development of a culture of knowledge sharing in the organization.	1	2	3	4	5

GLOSSARY

KM: Knowledge management

Knowledge management: identify and analyze the knowledge available and desirable for the development of the company". Systematic processes of identification, creation, storage, sharing and use of knowledge.

IT: Information Technology

Strategic resource: element considered of fundamental importance for the organization.

Empowerment: "decentralization of leadership" whose management model is more open and participatory. Empowerment of people.

Benchmarking: process of comparing products, services and business practices, through company surveys.

Equipos interfuncionais: they are formed by members positioned at approximately the same hierarchical level, but acting in the different work areas come together to accomplish a task. (committees, working group)